IMPROVING THE EFFECTIVENESS OF PROCUREMENT

Identification and improvement of key determinant factors - The PEPPS Project

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Thesis Summary

Title: - Improving the effectiveness of procurement - Identification and improvement of key determinant factors - The PEPPS Project
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Procurement, organisational buying, purchasing, sourcing, strategic sourcing, and more latterly within the public sector, “commissioning”, are all terms used to denote the function of and the responsibility for, procuring materials, supplies, and / or services. Many organisations look to transform their procurement function with varying degrees of success, and this thesis aims to identify what makes procurement effective and how an organisation can successfully transform their procurement function?

The questions are addressed through a mixed methods approach, following a predominantly interpretivist position, more specifically tending towards phenomenology. The research is conducted over five phases of activity, and includes a 3-year, longitudinal, action research based intervention within an industrial based company.

It was found that the definition of effective procurement was situation specific, although was generically defined as “*where the buy-side of the business has achieved a position that is fundamental to the enterprise and drives the achievement of business objectives taking consideration of stakeholder expectations, perceptions and business requirements”.* A procurement effectiveness model was created, that had five key dimensions; “Compelling Case”, “Competency”, “Approach”, “Communications”, and “Governance”, and the application of the model proved very successful within the industrial application.

The key academic contribution from this research is the development of the procurement effectiveness model, which both builds upon existing research and applies new thinking to the development of a holistic approach to the improvement of procurement. In terms of the contribution to practice, the research provides a bridge between academic and industrial thinking in order to improve the quality of information available to those looking to embark upon a procurement transformation.

Key Words: - Purchasing, Supply-Chain, Efficiency, Optimisation, Effective

Dedication

This thesis is dedicated to my parents, Ray and Joan Joesbury, who unfortunately did not live to see the end result. Their support and encouragement remains with me.

Acknowledgements

The doctorate programme can in some regards be a selfish and self-serving exercise, although it is one that would be impossible without the support, guidance and patience from those around you. I would especially like to thank my supervisory team, commencing with Dr William Ho, whose guidance throughout the early stages of the research proved invaluable. Dr Pavel Albores, who picked up the baton from William and has remained throughout the programme, and Dr Daniel Chicksand who joined the team towards the latter parts of the programme and has provided a high degree of guidance and beneficial challenge that has been extremely helpful in shaping the final thesis. For both Pavel and Daniel, I am especially grateful for their guidance and perseverance, as without their support, completing the doctorate would have been in question and the amount of time that they have both invested is greatly appreciated.

Lastly, but most importantly, I would also like to thank my wife Sharon and my son Elliot who have both had to make significant sacrifices, especially to family life, whilst I pursued my own personal goals. Not once has there ever been complaint or criticism, and both have remained fully supportive throughout the programme. I will always be grateful and feel privileged to have a family that is as understanding, patient and as supportive as they are.

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1 INTRODUCTION

Organisations typically buy materials, goods or services, convert (add value) and ultimately sell their products, and it is therefore important that they manage the buy side of their business as effectively as their operations or their selling processes (Dobler and Burt, 1996; Leenders and Fearon, 1997). Procurement, organisational buying, purchasing, sourcing, strategic sourcing, and more latterly within the public sector, “Commissioning”, are all terms used to denote the function of and the responsibility for, procuring materials, supplies, and / or services (Carr & Smeltzer, 1997; Sagev & Gebauer, 2001; Lindgreen et al., 2009; Herbig & O'Hara, 1996; Driedonks, et al., 2014; Roots, 2009; Gershon, 2004). Procurement and purchasing activity has existed in some form or another since the very early days of commerce, although it has since the late 80’s, seen somewhat of a renaissance and is now becoming more recognised as a key contributor to organisational performance (Russill, 1997).

One of the early books specifically addressing institutionalised purchasing was “The Handling of Railway Supplies - Their Purchase and Disposition”, written by Marshall M. Kirkman in 1887 - (Kirkman, 1887), who put forward the notion of purchasing as a professional discipline. Harvard University offered a course in purchasing as early as 1917 and purchasing as an academic discipline was reinforced with the printing of one of the first college textbook on the subject, authored by Howard T. Lewis of Harvard, in 1935 - Problems in Industrial Purchasing (Lewis, 1935).

The profession has, over the last 20 years or so, developed from being seen as a largely administrative function (Sagev & Gebauer, 2001), to one that is perceived within the more forward thinking organisations, as strategic, business critical and fundamental to success (e.g., Gadd & Hakanssonioppoip, 2004; Pressey et al., 2007). Peter Kraljic in his seminal article published in the Harvard Business Review in the 80’s declared that “Procurement must become supply chain management” (Kraljic, 1983; p109), which signified the need for a wider role for purchasing and its necessity to integrate with other areas of the business. In the 80’s Japanese companies such as Nissan and Toyota, especially within their UK based manufacturing facilities, fundamentally changed the way of working with suppliers (Wickens & Lopez, 1987), and helped to re-invigorate a UK Car Manufacturing Industry.

As much as 70 per cent of an organisation’s sales revenues or total manufacturing costs is spent on purchasing raw materials, components, finished goods or services (Chan & Chin, 2007; Presutti, 2003; Tayles & Drury, 2001), and if sourcing costs can be reduced, this can significantly improve the profitability of an organisation (Dobler & Burt, 1996; Leenders & Fearon, 1997). On this basis, organisations often undertake a “procurement transformation”, which involves changing the way that organisations manage their procurement function -

including its people, processes, practices and policies in order to move from a transaction-oriented perspective to a strategic oriented enterprise (Rendon, 2005).

It is however not all good news for the profession as there have been many procurement transformation initiatives that have not delivered the expected benefits. Many have cost organisations in lost time and consultant's fees and had a negative effect on the image of professional procurement (KPMG, 2015). The fact that procurement transformations are not necessarily guaranteed to deliver results leads on to the questions that are at the very heart of this study i.e., "***What is it that makes the difference between good and bad procurement?***", and "***How can an organisation effectively transform its procurement function?"*** There are many ideas promulgated within both the academic and professional literature, although there is no real consensus and limited research into a holistic approach to procurement transformation and procurement effectiveness in general.

Some of the literature on the determinants of success come from consultancy companies that have a vested interest in winning business on the back of their research. These consultancy claims are rarely supported in terms of academic rigour and often do not provide a complete picture - a dangerous place to be for organisations wishing to embark on a potentially expensive strategic sourcing transformation programme (Nixon / KPMG, 2012; Deloitte, 2016).

In the public sector, procurement and efficiency savings are often cited by political parties as a vehicle for the delivery of savings (all three major parties refer to improved purchasing in their 2010 election manifestos - e.g., Conservative Party, 2010), however in the current post recession economic climate there is a compelling case for the savings now to be realised and not just political positioning and rhetoric. There is an increasing need to make more use of the money that is available, and there have been a number of reviews and many recommendations made (e.g., Byatt, 2002; Gershon, 2004; Roots, 2009 etc.), although there is arguably still a significant untapped opportunity as the recommendations often become watered down in application.

Private and public sector procurement are different and the private sector historically has had a much higher focus on purchasing, although in these post-recessionary times, the need to transfer knowledge between the two and optimise is arguably more important (Arlbjørn, et al., 2011). Learning lessons from the private sector will allow the public sector not to repeat mistakes and become more effective in a shorter amount of time. This could be achieved by focussing on the things that really make a difference - a key deliverable from this research. It can be argued that the contribution from an effective procurement department can far exceed the return on investment of many significant capital investment projects. An example of this is the case study that is part of this research programme which achieved a payback in only 10 weeks!

This research aims to build upon the existing academic literature and through a mixed methods approach, develop a model for effective procurement. This model is tested within a real life industrial context, and it is envisaged that the model could be used as a basis for the development of an approach to procurement and procurement transformations that would benefit both public and private sector organisations alike. The research aims to first clarify what is meant by "effective procurement", and then identify the key influencing factors and / or determinants of success within a "procurement effectiveness model". The model is then applied within a longitudinal case study over a three-year period and aims to help bridge the gap between academic research and industrial application in order to provide an approach to procurement and strategic sourcing transformation that is based on sound academic principles and is backed up by rigorous academic research.

This research programme was wrapped up within a project called the ***PEPPS project*** (**P**rocurement **E**ffectiveness within the **P**ublic and **P**rivate **S**ector). This project name was used during the initial awareness sessions that were designed to engender interest in the subject and to engage with people who would be willing to support the research in one form or another.

1.1 Research Aim and Objectives / Purpose of the study

The research addresses the question "***What makes strategic sourcing and procurement programmes effective***?", although this can only be answered when the question of "***What is effective procurement?***" has firstly been explored. Within this study, both questions are answered from the position of customers, commissioners or key stakeholders of procurement.

The research objectives can therefore be stated as: -

- Objective 1 - Define effective procurement
- Objective 2 - Develop a Procurement Effectiveness Model (PEM)
    - Objective 2a - Identify the key influencing factors and / or determinants of success for procurement effectiveness
    - Objective 2b - Investigate the inter-relationship of the identified key factors
- Objective 3 - Determine the effect of applying the PEM in an industrial application

1.1.1 Academic Purpose

The challenge for this research is to develop a procurement effectiveness model that both identifies, then explores the key determinants of success. The model is initially built using knowledge from within the existing academic literature, and is then supplemented with information obtained through the engagement of senior executives and procurement professionals. The model is then finally tested within an industrial based case study. The research therefore serves to test some of the assertions from the existing literature, build new theory, and test this new theory within a live case study. As this research programme will test the model in only one industrial environment, it will also provide a basis for future research into the model's generalisability through its application in other situations within subsequent research programmes.

1.1.2 Professional Purpose

In the professional procurement conferences held over the last few years (e.g., Procurement Leaders, CIPS etc.) there are often procurement transformation case studies that are presented to the wider audience by well-known organisations who are representing their experiences in order to share the information on how they have approached the transformation. Often this is consultant led and their approach is frequently based on the consultant's guidance and their particular "flavour" of procurement transformation. As indicated previously, there is limited academic research that has been undertaken regarding a holistic approach to transformation, and it is envisaged that this research will help to provide a bridge between industry and academia in order to improve both the quality of advice available to organisations, and improve the impact of procurement generally. With public sector organisations spending in the region of 10 - 30% of GDP (Callender, et al., 2000), and for commercial organisations spending between 48% and 90% of their turnover externally (e.g., Tayles & Drury, 2001; Smith David, et al., 2002; Carr & Pearson, 2002; Presutti, 2003; Parikh & Joshi, 2005; Kulp, et al., 2006, Joyce, 2006; Chan & Chin, 2007), any improvement to procurement effectiveness should have a significant effect on overall performance.

This research should therefore be of interest to many different parties. For example, public and private sector bodies who are wishing to undertake a procurement transformation programme may want to increase the propensity for success on any transformation that they are about to embark upon. Consulting companies could provide additional revenue streams to their business based on the application of the procurement effectiveness model, and link their activity to proven academic theory. Procurement leaders may be interested in improving the performance of their existing teams, or in the recruitment of people who demonstrate the right competencies, or in making sure that their programme "ticks all of the boxes" of the effectiveness model in order to give themselves the best chance of success.

1.2 Research Component Roadmap

The research questions are addressed through a number of different components within the overall research programme and include: -

- Literature review
- Stakeholder interviews (targeted at senior decision makers / commissioners of a procurement transformation)
- Procurement practitioner expert sessions
- The Chesapeake Packaging 3-year longitudinal study
- A perceptions survey (within the longitudinal study)

The following shows the relationship between the research component and the research objectives: -

	Literature Review	Stakeholder Interviews	Expert Sessions	Chesapeake Longitudinal Study (see section 1.3)	Chesapeake Perceptions Survey (see section 1.3)
Objective 1 - Define Effective Procurement	●	●	○		
Objective 2 - Develop a Procurement Effectiveness Model (PEM)	●	○	●	○	
Objective 2a - Identify the key influencing factors and / or determinants of success for Procurement Effectiveness	●	○	●		
Objective 2b - Investigate the inter-relationship of the key determinant factors	○			●	○
Objective 3 - Determine the effect of applying the PEM in an industrial application				●	○
Key	● Main Contributor ○ Supporting Contribution				

Table 1 - Research Component Roadmap

1.3 An Introduction to Chesapeake Packaging Ltd.

The main body of activity within this research programme is the application of the procurement effectiveness model in an applied environment. The company that was chosen was Chesapeake Packaging Ltd., who were a UK headquartered international packaging company that provided high-end packaging for a number of market segments including pharmaceutical, healthcare, drinks, tobacco, confectionary and plastic packaging markets. The company was originally a public limited company with stocks traded on the NYSE, although during 2008 the Chesapeake Corporation entered into difficult times and ended up in Chapter 11 administration within the US. Operating from 45 sites globally the organisation was split into three main operating divisions; Pharmaceutical and Healthcare, Branded Goods and Plastics, and had operations within UK, Europe (France, Germany, The Netherlands, Poland), North America and China. The combined turnover of the business was ~£500m, and the external spend was in the region of £300m.

The packaging business assets were purchased by two Private Equity (PE) companies; Oak Tree Management (a California based Private Equity house), and Irving Place Capital (IPC), (a New York based private equity house), and a new Chairman and CEO was appointed to represent both PE company interests. The CEO agreed to allow the company to be used as a subject of this research, and Paul Joesbury, the lead researcher / author was appointed as Chief Procurement Officer in October 2010. The intervention programme ran from the beginning of 2011, until the end of 2013.

1.4 Structure of the thesis

The thesis is structured into five chapters. Chapter one is the introduction and confirms the research objectives. Chapter two details the literature pertaining to procurement effectiveness and identifies previous studies and associated knowledge gaps. Chapter three details the research design and methodology, and identifies the overall approach to the study in terms of specific activity phases. Chapter four shows the findings from the study, including the definitions of success and the development of the procurement effectiveness model. It also details the application of the model during the Chesapeake Packaging Ltd. case study, including reviewing the “As-Is” baseline, the interventions and the results of the interventions. Chapter five draws conclusions and provides some deeper analysis. It also identifies the limitations of the research, the contribution that this study has made, and recommends further research activity.

2 LITERATURE REVIEW

The aim of conducting a literature review is often to enable the researcher to map and assess the existing intellectual territory, and to specify a research question to develop the existing body of knowledge (Tranfield, et al., 2003). This literature review has therefore been undertaken in order to widely appraise the information available that relate either to the holistic subject of procurement effectiveness, or to specific elements or factors that have been determined as important to the objective of improving procurement performance. The inter-relationship between the factors is important and the literature review has therefore also focused on papers that identify multiple elements or factors and how those elements interact with one another.

As a baseline, a key objective of this research is to *define* success as this can often be subjective and appears to be dependent on both the scope of the activity and on the subject's relative position within the organisation. For example, is procurement an administrative function responsible for the raising of purchase orders (e.g., Sagev & Gebauer, 2001), or is it more integral to the operation of the enterprise? (e.g., Carr and Smelzer, 1997). Additionally, a procurement initiative may be deemed as successful from within the procurement department as money may have been saved, although the same initiative viewed from within a manufacturing department may conclude that the initiative was unsuccessful due to an increase in quality rejects and/or a negative impact on production performance. The literature has therefore also been reviewed in terms of the definition of success and the identification of success factors with associated measures of performance.

The research objectives as previously stated are: -

- Objective 1 - Define Effective Procurement
- Objective 2 - Develop a Procurement Effectiveness Model (PEM)
    - Objective 2a - Identify the key influencing factors and / or determinants of success for Procurement Effectiveness
    - Objective 2b - Investigate the inter-relationship of the identified key factors
- Objective 3 - Determine the effect of applying the PEM in an industrial application

The literature review will contribute to achieving the first two objectives (including 2a), i.e., the definition of effective procurement and the development of an initial procurement effectiveness model, although Objective 2b (the interrelationship between the factors) and Objective 3 (the effects of applying the model) is addressed within the Chesapeake Packaging case study.

This chapter is structured as follows: -

- An examination of the literature review methodology
- A high level review of the available literature and an initial categorisation of the relevance of the literature against the research questions
- A discussion of the major themes that emerge from the review
- A review of success / measures of performance and scope of procurement activity
- A review of the key factors that affect procurement effectiveness
- A review of the process of transition to effective procurement

Finally, there is a summary of the main findings of the literature review, the knowledge gaps and how the literature relates to the research questions.

2.1 Methodology of the Literature Review

A systematic literature review entails a series of techniques for minimising bias and error and as such, a structured review and meta-analysis are widely regarded as providing 'high-quality' evidence. The systematic review differs from traditional narrative reviews by adopting a replicable, scientific and transparent process (Tranfield, et al., 2003). The initial stages of systematic reviews may be an iterative process of definition, clarification, and refinement (Clarke & Oxman, 2001), and it is this iterative approach that has been adopted in this study and follows the following basic phases: -

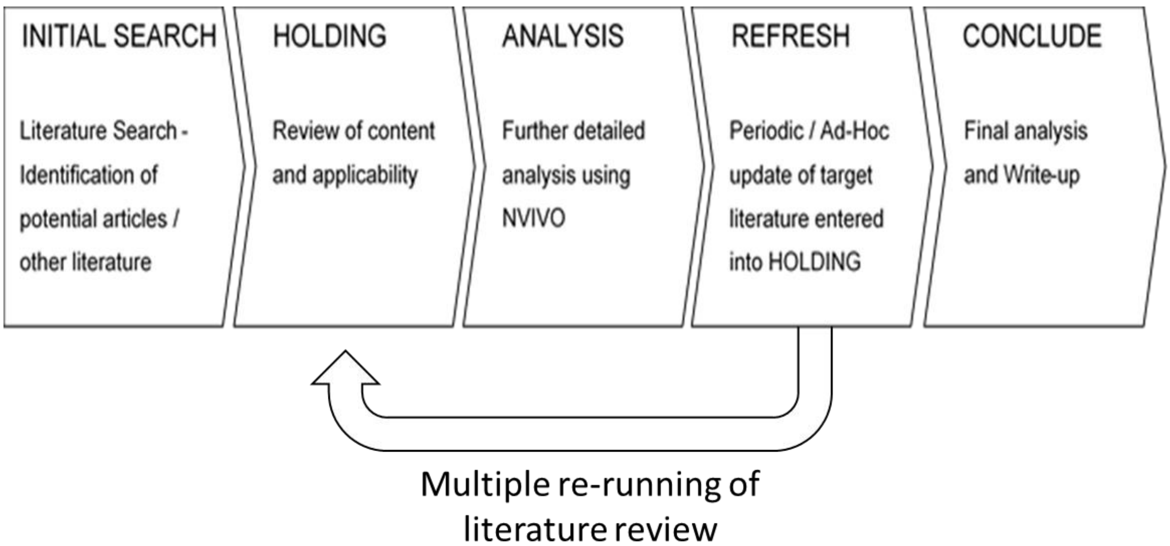

Figure 1 - Literature Review Flow Diagram showing iterative review

The search was divided into two main stages; the initial search was performed as part of the preparation for the qualifying report and was used to take a holistic view of the best sources of information, and to gauge the types of research literature that was available. This analysis was used to determine the maturity of procurement related research over time, and to develop initial categories or groupings of the literature.

In addition, a preliminary "relevance" assessment was made in order to prioritise the deeper analysis of the available literature. This relevance assessment involved initially reading and assessing the literature against the following questions: -

- Does the literature: -
  - Define success for procurement functions?
  - Relate to the overall efficiency or effectiveness of a procurement function?
  - Relate to elements or factors that relate to the effectiveness or improvement of the procurement function?

Once the initial sift of the literature had been undertaken, a further grouping of the information was made. This grouping was based on the categories that emerged from the high level review and raised further questions, namely;

- Does the literature: -
  - Relate to any justification or senior level sponsorship for the procurement function?
  - Address the "people" issues relating to the effectiveness of people in procurement functions?
  - Address the strategy or approach to procurement management / category management, including the supplier management strategy, negotiation strategy, total acquisition cost methodologies etc.?
  - Relate to tools and techniques within the procurement domain i.e., the seven step gateway process or similar?
  - Relate to awareness, communication PR or Marketing of the procurement function?
  - Relate to how procurement savings are managed and how these are communicated?
  - Relate to government or public sector purchasing?
  - Relate to a specific project company or industry?
  - Relate to purchasing infrastructure e.g., IT system e-auctions etc.?

The literature was then assigned a category and a relevance score between 1 (low) and 5 (high) to determine the "strength" of relevance to this study on procurement effectiveness.

Rating	Description
5	Very relevant to the DBA research
4	Good relevance to the DBA research
3	Some relevance to the DBA research
2	Low relevance to the DBA research
1	Related to the subject area but very low relevance to the DBA

Table 2 - Literature - Degree of Relevance to the Study

The initial literature search was supplemented based on the ongoing identification of relevant material and a further review of referenced literature within the articles deemed as "Some" (i.e., rating = 3), "Good" (i.e., rating = 4), or "Very" (i.e., rating = 5) relevant to the DBA research. Additionally, the full literature search was re-done periodically in order to ensure that the subject matter had been fully explored and that relevant literature had been captured.

At the end of the research process, a specific analysis was undertaken on literature that had been published post 2010 in order to ensure that the latest thinking had been considered. This analysis is shown in section 2.2.2.1.

2.2 Search Findings

2.2.1 Initial Search - Review

The main search engines for the significant part of the literature reviewed was ABI/Inform (Proquest), Emerald Insight and Science Direct. The initial search criteria used was "Sourcing" or "Purchasing" in either the title or the key words search options. This returned: -

- ABI/Inform (Proquest) - 3937 results
- Emerald Insight - 696 results
- Science Direct - 711 results

This initial search was further refined by adding "Effectiveness" or "Effective" (in any field) - which yielded the following results: -

- ABI/Inform (Proquest) - 33 results
- Emerald Insight - 77 results
- Science Direct - 360 results

Of these approximately 56 were deemed as having a degree of relevance - an analysis by date of publication is shown in Figure 2: -

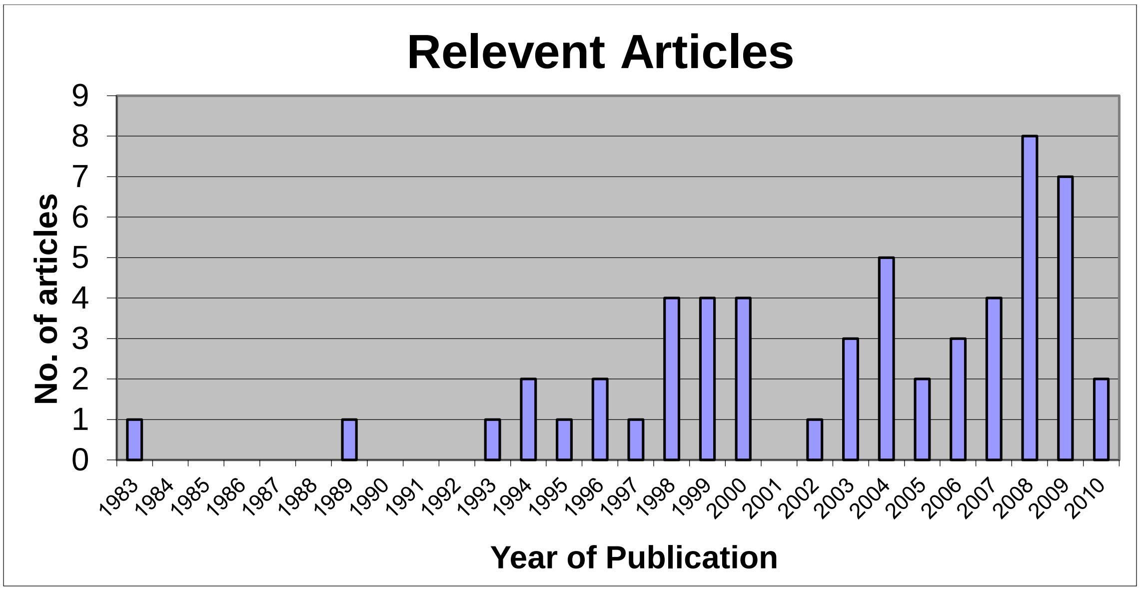

Figure 2 - Graph of Publication Evolution

From this initial search it can be seen that journal articles regarding purchasing are growing in numbers and have become more popular since the early 90's. This is probably reflective of the activity being seen as more professional rather than just an administrative function (Callender, et al., 2000), and the increasing occurrence of volatility in supply markets meaning that the purchasing function is being seen as more critical to the success of the enterprise. (Nixon / KPMG, 2012).

This initial rating analysis was based around the first three questions listed above i.e.: -
Does the literature: -

- Define success for procurement functions?
- Relate to the overall efficiency or effectiveness of a procurement function?
- Relate to elements or factors that relate to the effectiveness or improvement of the procurement function?

The results of this analysis are shown in Figure 3 below: -

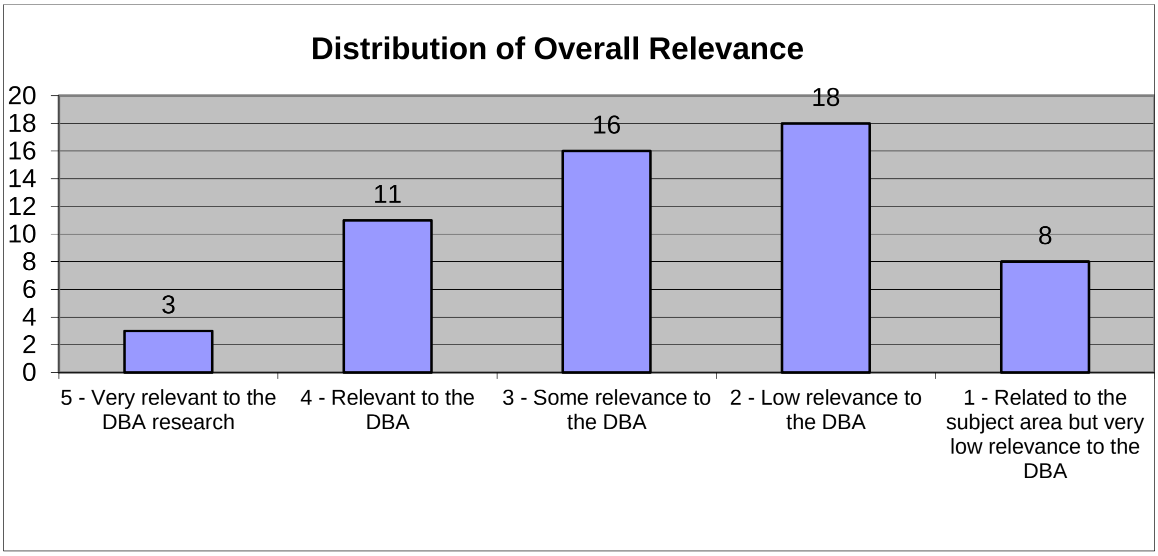

Figure 3 - Distribution of Overall Relevance

It can be seen that only 14 of the journal articles were considered as either "Relevant" or "Very Relevant", reinforcing the emergent nature of the research relating specifically to procurement effectiveness. Very few studies have focused on a holistic view of the factors and their interactions that are important in improving procurement effectiveness, which was the main criterion for being classified as highly relevant to the research.

The initial 56 papers were also grouped and categorised into key subject areas as follows: -

- Papers that were concerned with general strategic sourcing were classified as "General".
- Papers that were concerned with the requirement for a strong reason for the introduction of a strategic sourcing programme, or related to the role of senior management in making the case for a strategic sourcing programme were classified within the "Compelling case" classification.
- Papers that looked at the skills, knowledge and competencies of procurement practitioners were assigned to the "Competency" classification.
- Papers that were concerned with strategy, approach, organisation structure or tools and techniques were classified as "Strategy".
- Papers that looked at aspects of communication, networking, influence etc. were classified as "Marketing".
- Papers that looked at the role of finance or the requirement to ensure that declared savings do in fact influence the bottom line are classified as "Governance".
- Papers that looked specifically at local or central Government purchasing were classified as "Government".
- Papers have been classified into more than one category area where their subject matter crosses over into multiple areas.

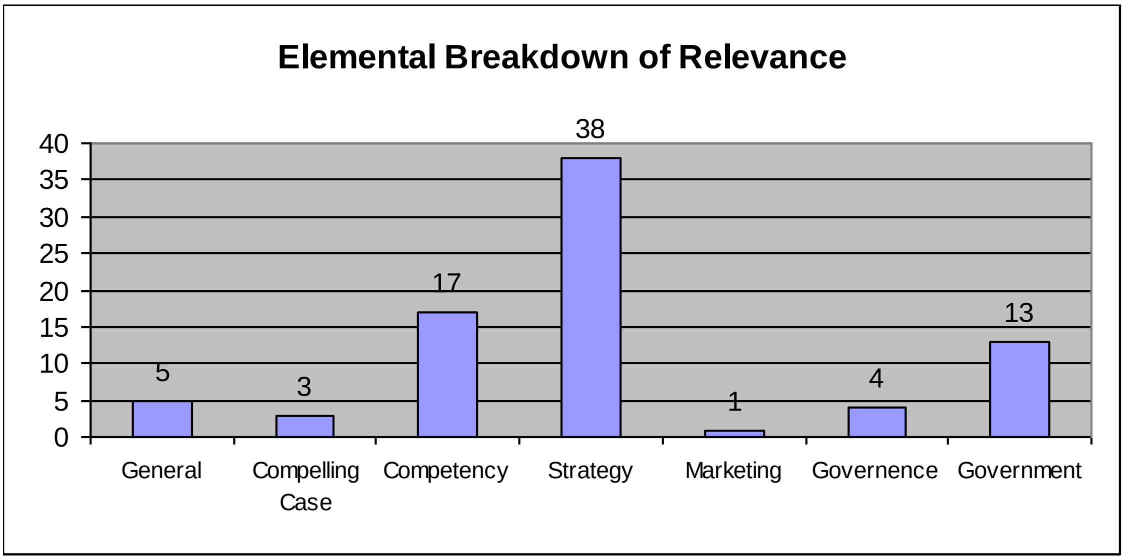

Figure 4 - Initial Classification Groupings

It can be seen from Figure 4 that the majority of papers have been written about purchasing strategy, or the mechanics of purchasing. Second to strategy are the people, skills and competencies. Government purchasing has also been the subject of a number of papers.

2.2.2 Subsequent Literature Review findings

Following the initial literature search supporting the qualifying report, the review process was repeated with a wider set of search criteria. The later review focused on the ABI-Inform / Proquest database and yielded the search results shown in Table 3: -

Search Criteria	Hits
Procurement or purchasing or sourcing or supply chain	12300
supply chain	6789
Procurement or purchasing or sourcing	5628
purchasing	2722
Procurement in document title	1973
Sourcing	985
ti(procurement or purchasing or sourcing or supply chains) AND (effectiveness or efficiency or transformation)	567
ti(procurement or purchasing or sourcing or supply chains) AND ti(effectiveness or efficiency or transformation)	163
ti(procurement or purchasing or sourcing) AND ti(effectiveness or efficiency or transformation)	65
Procurement or purchasing or sourcing AND efficiency	37
Procurement or purchasing or sourcing AND effectiveness	21
Procurement or purchasing or sourcing AND transformation	4

Table 3 - Literature Review Search Criteria

The search criteria "title includes procurement or purchasing or supply chains AND effectiveness or efficiency or transformation" was the final search criteria used and a further assessment made of the 567 search results.

The combined analysis resulted in 632 target articles, which was further reduced to 168 that were deemed to be sufficiently relevant to the research in some form (i.e., had a relevance score of three or greater, which are those papers classified as “Some”, “Good” or “Very” relevant to the research) and as such warranted a further and more in-depth analysis.

Table 4 shows the breakdown of classification:

Relevance	Total
1 - Related to the subject area but very low relevance to the DBA	321
2 - Low relevance to the DBA research	143
3 - Some relevance to the DBA research	104
4 - Good relevance to the DBA research	55
5 - Very relevant to the DBA research	9
Grand Total	632

Table 4 - Relevance to the DBA Research

Figure 5 shows the breakdown by category, and it can be seen that the majority of literature has been written about specific applications, rather than generalizable concepts. The specific application information therefore had to be further assessed in relation to whether the information from the case could also be relevant to this research.

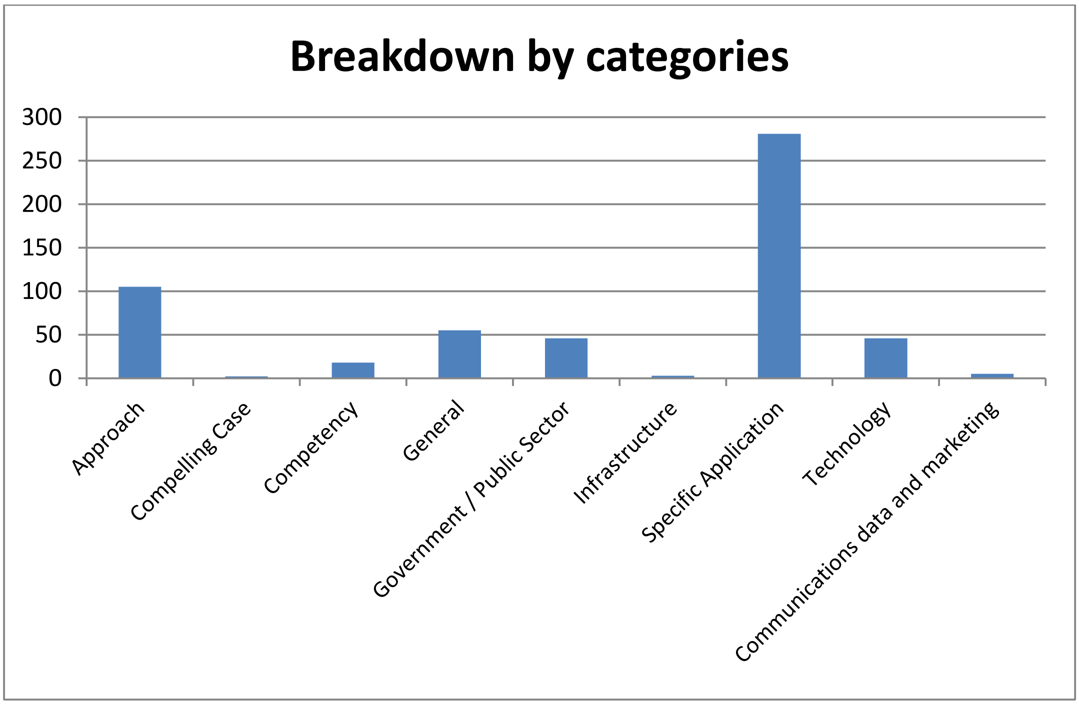

Figure 5 - Subsequent breakdown by Category

Figure 6 reinforces the position that the majority of papers reviewed had some relevance to the subject of procurement, but only 64 of 632 papers were classified as either “Relevant” (4) or “Very Relevant” (5).

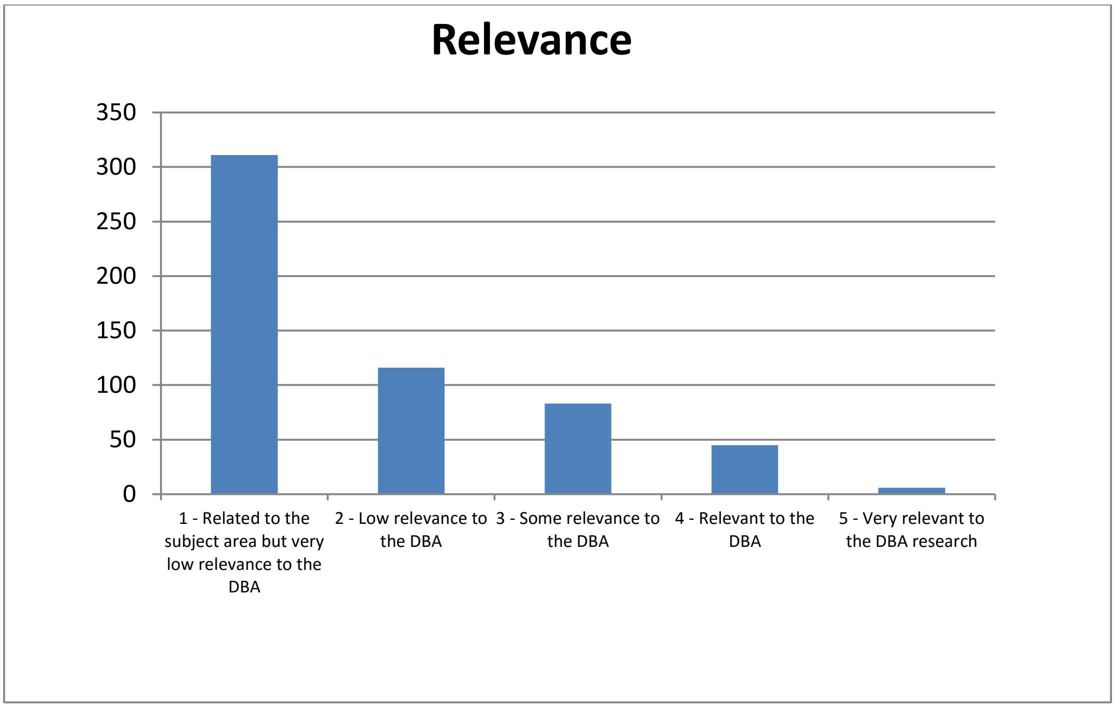

Figure 6 - Subsequent Relevance Classification

NVIVO10 was then used as a repository for the documents and as a vehicle for the further analysis of content at a more detailed level. The coding process within NVIVO10 effectively identified common themes, and nodes were created in order to group the elements together for further review at a later stage.

2.2.2.1 Literature post 2010

Figure 2 shows the evolution of literature up to 2010, in order to support the initial qualifying report. The subsequent literature review detailed in section 2.2.2, aimed to both supplement the initial review, and to identify more up to date literature. This section specifically identifies the post 2010 literature that has been used as part of this research and also further reviews the procurement related papers that have been published post 2010, in order to ensure that the latest papers were also considered within this research programme.

The following table shows the literature post 2010 that has been referred to within this research :-

Authors and Title	Date of publication
Bonnie, K., Vitasek, K., Manrodt, K. & Kling, J., 2016. *Strategic Sourcing in the New Economy: Harnessing the Potential of Sourcing Business Modeals for Modern Procurement.* 1st ed. s.l.:Palgrave Macmillan.	2016
Deloitte, 2016. *The Deloitte global chief procurement officer survey 2016 - Procurement: at a digital tipping point?,* s.l.: Deliotte.	2016
Cox, A., 2015. Sourcing portfolio analysis and power positioning: towards a “paradigm shift” in category management and strategic sourcing. *Supply Chain Management - An International Journal,* 20(6), pp. 717-736.	2015
KPMG, 2015. *Transforming a procurement organization,* s.l.: KPMG.	2015
Touboulic, A. & Walker, H., 2015. A relational, transformative and engaged approach to sustainable supply chain management: The potential of action research. *Human Relations,* Volume I-43, p. 1.	2015
Driedonks, B., Gevers, J. & van Weele, A., 2014. Success factors for sourcing teams: How to foster sourcing team effectiveness. *European Management Journal,* Volume 32, pp. 288-304.	2014
Aberdeen Group, 2013. *Strategic Sourcing - The Future is Now,* s.l.: Aberdeen Group.	2013
Kamberelis, G. & Dimitriadis, G., 2013. *Focus Groups: From structured interviews to collective conversations,.* s.l.:Routledge.	2013
Saunders, M. & Tosey, P., 2013. *The Layers of Research Design,* s.l.: Raport.	2013
Yin, R., 2013. *Case study research: Design and methods.* s.l.:Sage Publications.	2013
Nixon / KPMG, R., 2012. *The Power of Procurement - A global survey of procurement functions,* s.l.: KPMG.	2012
Ardent Partners, 2011. *The CFO and the CPO - One World, Two Worldviews,* s.l.: Ardent Partners.	2011
Arlbjørn, J. S., Freytag, P. V. & de Haas, H., 2011. Service supply chain management. *International Journal of Physical Distribution & Logistics Management,* 41(3), pp. 277-295.	2011
Ho, W., Dey, P. & Lockstrom, M., 2011. Strategic sourcing: a combined QFD and AHP approach in manufacturing. *Supply Chain Management: An International Journal,* 16(6), pp. 446 - 461.	2011
Brandmeier, R. A. & Rupp, F., 2010. Benchmarking procurement functions: causes for superior performance. *Benchmarking: An International Journal,* 17(1), pp. 1463-5771.	2010
Conservative Party, 2010. Election Manifesto.	2010
Driedonks, B. A., Gevers, ,. J. M. & vanWeele, A. J., 2010. Managing sourcing team effectiveness: The need for a team perspective in purchasing organizations. *Journal of Purchasing & Supply Management,* Volume 16, pp. 109-117.	2010

Table 5 – Literature (post 2010) used within this research

A further search using the ABI Inform / Proquest search engine was performed in order to reassess the post 2010 literature landscape. The following criteria:-

- Title includes (“procurement” OR “purchasing” OR “sourcing”) AND (“effectiveness” OR “efficiency” OR “transformation”) yielded some additional 402 results.

These additional 402 results were categorised and analysed against the existing relevance criteria (Table 4), yielding the following results: -

Category	Total
Compelling case	1
Efficiency	6
General	144
Health	14
Multi-factors	1
Relationships	1
Risk	10
Strategy and Approach	57
People / Organisation	20
Government / Public Procurement	73
Ethics / Environmental / CSR	37
Technology / E-Procurement	34
Governance / Measurement	3
Comms and Marketing	1
Grand Total	402

Table 6 – Classification of additional (post 2010) papers

The highest value category was "General" which was used where the paper referred to procurement but not the factors that would influence effectiveness. The next most popular classification was Government / Public sector procurement followed by strategy and approach.

The relevance of these additional papers were also analysed and is shown in table 7 below: -

Relevance	**Total**
1 - Related to the subject area but very low relevance to the DBA	350
2 - Low relevance to the DBA research	28
3 - Some relevance to the DBA research	22
4 - Good relevance to the DBA research	2
5 - Very relevant to the DBA research	0
Grand Total	402

Table 7 – Relevance of additional (post 2010) papers

It can be seen that there were no additional papers that were identified as "very relevant" to the research programme (i.e. that multiple influencing factors were identified and analysed), and only two of the papers identified had good relevance to the research. It can therefore be concluded that the existing literature used within this research programme was sufficiently relevant at the time of thesis submission. It should however also be concluded that the subject of procurement is growing in popularity, and that further research into procurement effectiveness would need to keep abreast of the latest literature in order to ensure that the basis of this research is still relevant.

2.3 Use of NVIVO10 for the literature review

At the beginning of the research there were few academic papers identified that had relevance to the research that was being undertaken. It was therefore quite simple to analyse and keep track of what had been reviewed. As the research progressed however, more sources of information became evident and the job of organising and analysing the information became more complicated and required a process framework and a system for organising both the papers and the analysis. First attempts were with Microsoft Excel, and a spreadsheet was developed that facilitated simple categorisation which was sufficient for the top level analysis, however it was not a suitable solution for analysing the content in any detail. An alternative solution was investigated and, after trialling a number of different options, NVIVO10 was chosen as the system that would be used for this research. On the adoption of NVIVO10, the detailed content review was redone, with all papers being reviewed in a much more structured and systematic way, providing a consistent review lens resulting in a much more comprehensive and effective review process.

Documents, papers and relevant information was imported into NVIVO10, and coded based on the initial categorisation developed during the high level review. The analysis process facilitated further granularity of the classification codes previously identified, and highlighted a number of new coding classifications that were created as nodes within the system. A full list of codes / nodes is shown in Appendix 1, although a summary of the top level node classifications is shown below: -

Name	Sources	References
General	7	8
Best practice	4	10
Background - History	11	19
Definition	14	29
Associated Theories	21	34
Transition from tactical to Strategic	16	41
References	25	45
Public Sector Procurement	12	46
Benefits - Issues	35	53
Factors	24	62
Scope of Activity	43	74

Table 8 - High Level Classification Nodes used within NVIVO10

2.4 *Ongoing development of the literature review*

Following the two main phases for the review, additional material was added on a case by case basis where either additional literature was discovered or recommended by the supervisory team, or further development of additional themes was required during the action research phase of the programme.

2.5 *Introduction to the key themes within the literature*

The literature review identified many factors that could have an effect over the question of procurement effectiveness within an organisation. Figure 7 below shows, in pictorial form some of the elements that were identified, and this section explores the key themes from within the literature in relation to these factors. The relevant section numbers are also shown for reference.

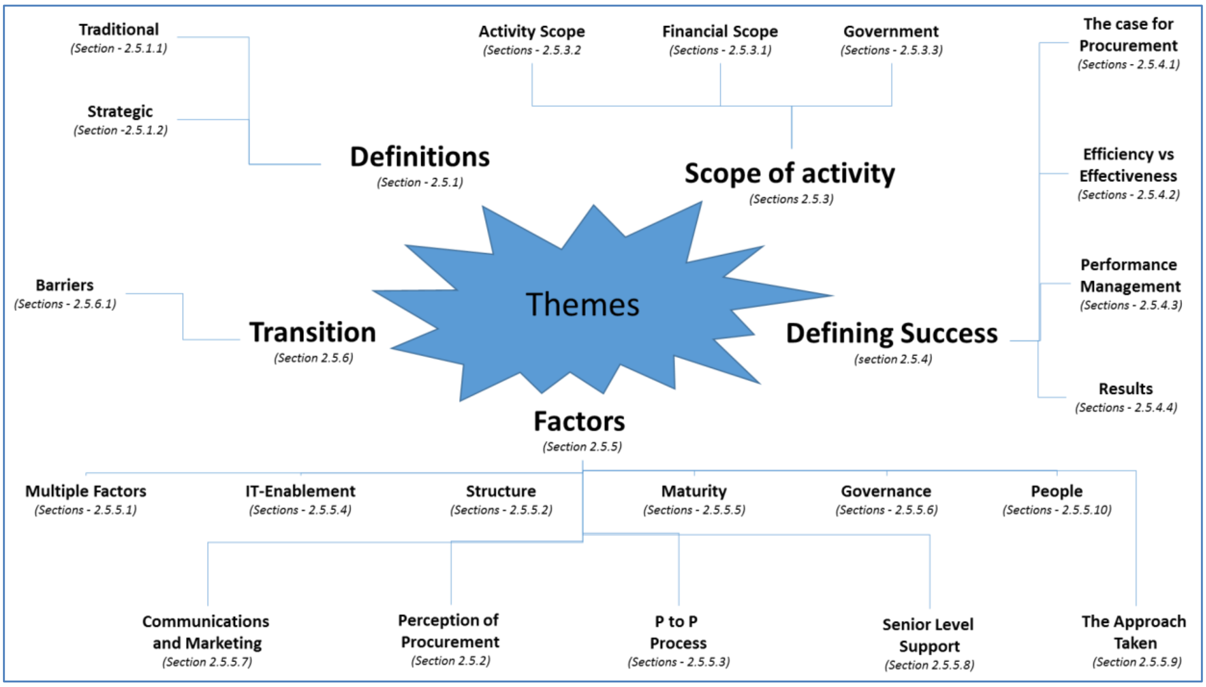

Figure 7 - Key Themes

2.5.1 Definitions of Procurement

In order to address the fundamental question of "What makes Procurement Effective?", it is first important to define what procurement actually is. Within the literature and the procurement profession, there has developed a professional "language" and there appears to be no real agreement to the definition or specific meanings - the obvious example is the numerous names for procurement itself e.g., buying, purchasing, procurement, sourcing, supply chain, strategic sourcing, commissioning etc. One of the NVIVO10 nodes or classification areas was therefore related to how things are defined and the meaning behind the procurement terminology and is discussed in the following sections.

2.5.1.1 Traditional Purchasing

The traditional view of purchasing is one of a standalone function where activity is confined to receiving buying requests from internal users and translating these into purchase orders or other contractual relationships with suppliers. It is typically seen as a reactive, paperwork intensive clerical function which focuses on transaction processing (Sagev & Gebauer, 2001). Lindgreen, et al., (2009), refer to Baily & Farmer (1986), and comment that the traditional approach to purchasing imagines organisations taking an adversarial, arm's-length position with their suppliers; negotiating rationally with them; and selecting the right materials, at the right time, in the right quantity, from the right source, at the right price.

Prida and Gutierrez pictorially define traditional purchasing and is shown in Figure 8 below: -

Aston University

Illustration removed for copyright restrictions

Figure 8 - Traditional Approach to Supply Management (Prida & Gutierrez, 1996)

This funnelling of both the customer and supplier organisation through a single interface between salesman and purchaser is questioned by Brookes et al., (2007), as the strength of relationship between the two organisations could be dependent on the strength of relationship between the two individuals.

"Sole Sourcing" is the result of being forced to buy from one supplier only as a result of such market factors as location, exclusive design rights and customer specifications (Quale, 2001), although the Japanese manufacturing industry appeared to take a different view where the concept of single sourcing was used as a way of building up closer and more collaborative relationships and focusing on supply chain efficiency, resulting in a more strategic form of procurement (Wickens & Lopez, 1987).

According to Quale (2001), there are six possible voluntary sourcing strategies for purchased materials, i.e., single sourcing, multiple sourcing, parallel sourcing, backward vertical integration, make-in, and sole sourcing. Driedonks et al., (2010), refer to Monczka et al., (2006), and state that sourcing teams have to decide on an adequate strategy and this use of the word "strategy" leads us on to a wider role for procurement that is more strategic and more focused on the business requirements i.e., strategic procurement.

2.5.1.2 Strategic Procurement - Strategic Sourcing

The Aberdeen Group talks about strategic sourcing always being prevalent, and that the function of best quality at the lowest price has been the premise driving strategic sourcing throughout the years and has always been an important part of commerce. Companies buy, convert (add value) then sell - with the buying part being an obvious key determinant of success (Aberdeen Group, 2013). The term strategic procurement is however an area that has a wide spread of interpretations regarding its definition and scope. For example, Carr and Smelzer (1997), define strategic purchasing as the process of planning, evaluating, implementing, and controlling highly important and routine sourcing decisions. They go on to say that strategic sourcing consists of the strategic processes and business practices such as early supplier involvement, supplier development, supplier assessment, supplier certification and measurement (Carr & Smeltzer, 1997).

In later publications Seltzer comments that strategic sourcing is a systematic and comprehensive process that adds value to a company, which in turn helps to achieve the company's long-term objectives and integrates with business practices (Smeltzer, et al., 2003). This emphasis of strategic procurement being more critical to the business is supported by Mathews (2005), who also lists the differences between tactical (historic) and strategic (leading) in relation to tasks and is summarised in Table 6 below.

Tactical (Historic)	**Strategic (Leading)**
Purchase Order Issuance	Supplier Alliances
Vendor File Maintenance	Cost Management
Excess Inventory	Global Sourcing
Order Tracking	Life Cycle Costing
Unit Cost Focus	Procurement Planning
Local Vendors	Spend Management

Table 9 - Specific Tasks Related to the Evolution of Purchasing (Matthews, 2005)

Driedonks et al., (2014), indicates that strategic purchasing is the part of the purchasing function that aims at selecting and managing the external suppliers in line with the strategic objectives and goals of the firm, which indicates that strategic purchasing is there to apply and align to strategies developed elsewhere which may be argued, still underestimates the potential for the function.

Another body of literature refers to global, international and world-class procurement and Rajagopal and Bernard (1994), reference Monczka and Trent (1991), and make a distinction between global and international sourcing and comment that international sourcing indicates that firms are purchasing from foreign suppliers, but there is a general lack of coordination between business units, whilst global sourcing requires the integration and coordination of purchasing activities across worldwide business units, and the examination and creation of common items, processes technologies and suppliers. On world class procurement Giunipero and Monczka (1997), comment that to meet the competitive challenge of international business, firms are turning to a strategy of being "world class organisations". In the purchasing arena, this "world class" philosophy translates into viewing the world as a source for products and buying at the lowest cost worldwide, although this definition is quite generic, traditional and offers no benchmark performance information and is therefore of limited benefit to this research.

For the purposes of this thesis a new and simple definition of strategic sourcing is required as no single definition sufficiently encapsulates the topic. Most definitions point to either processes within a strategic sourcing approach, or define it as secondary / subordinate to other functions in terms of business strategy development. Strategic sourcing / strategic procurement is therefore defined as "***the fundamental integration of purchasing and supply chain into the strategy, decision making and operation of the enterprise".***

2.5.2 Perception and Procurement Status Within the organisation

The perception of procurement has, for a long time, been one of poor relation. Even with its early beginnings the profession still lacks the confidence to take its rightful position within the enterprise (Thompson, 1996). Stronger relationships and understanding between procurement and the rest of the business, especially the CEO and CFO is key to procurement being recognised for the contribution that it can make (Deloitte, 2016). This point is explored at some length within this section, as a poor perception of procurement may be instrumental in limiting its potential to be effective in terms of acceptance and in its ability to attract the best talent.

According to Kraljic (1983), one big international company vastly improved the status of the purchasing division by promoting a dynamic sales executive with broad international expertise to head it. This is a recurring theme in that the purchasing "professionalism" and specialist knowledge is often not recognised as it is frequently the case that a non-procurement professional is appointed to lead the function. It would be an interesting comparison to see how many CFO's are appointed without the specialised knowledge of finance and accounting!

Ferguson et al., (1995), postulated that purchasing must continue to demonstrate its ability to positively impact on organisation financial effectiveness. The obvious inference here is that a positive perception of procurement is not being effectively delivered or received, Thompson (1996), states that while the strategic changes needed inside businesses are not necessarily very complex, they are hindered by an inherent lack of expertise and understanding of purchasing. Top managers rarely put purchasing at the top of the agenda and only a very few chief executives have actually come from the purchasing function. Dumond (1996), comments that both General Electric Company and Tektronix found in their operations that the interaction process among team members was more effective if the team members operated at the same level of authority. Consequently, both of these organisations had to elevate procurement to a level consistent with its counterpart functions. This assertion is also supported by Cox (1997), who comments that the opportunities to raise the profession's profile are rarely stimulated by the purchasing professional per se. They tend to be created by the decisions and actions of other senior colleagues and functions within the reporting hierarchy. This also raises the question of whether there are inherent skills lacking within the profession with regard to self-marketing, communications and promotion, an assertion that is tested within this research.

Quale (1998), refer to Carter and Narasimhan (1996), and suggest the status accorded the purchasing function in an organisation frequently is determined by the image the function projects to personnel outside purchasing. Unfortunately, most non-purchasing personnel have a very simplistic view of the purchasing function, and they understandably demonstrate little regard for internal purchasing performance measures which they view as mainly tactical (Cavinato, 1987). Carter and Narasimhan also suggest the linkage between purchasing strategies and organisational performance began to be established when organisations started to realise the impact that the purchasing function can have on their competitive position and they are now gradually shifting the role of purchasing from tactical to strategic.

The concept of preconceived ideas about purchasing is discussed by Hult and Nichols (1999), who comment that often great purchasing ideas fail to be translated into practice because they conflict with deeply held internal images of how purchasing systems work i.e., mental models and images that limit the purchasing practitioner to familiar ways of thinking and acting (Senge, 1990). Some of the mental models include: -

- Purchasing decision are made solely on the basis of purchase price

- The purchasing process involves too many rules and regulations, requires too much time and adds too little value
- Purchasing does not keep users informed regarding the status of materials and/or services requests
- Purchasing personnel really do not understand user requirements
- Purchasing personnel would prefer to do business with their favourite suppliers rather than those that can best serve the requirements of the user

Callender and Mathews (2000), suggest that today's purchasing professionals are beginning to be viewed as top level executives and programme managers instead of "those generally unglamorous individuals" (Stewart, 1994). The comment regarding the unglamorous individuals is a perception that is quite widespread and supports the "mental models" theory discussed earlier, and may well be a barrier to the profession moving forward. Snider (2006), comments that one group of authors captured this concern over the field's identity in describing public procurement as the "Rodney Dangerfield" of government activities; that is, it gets no respect due to its routine and mundane features. This is also potentially the case in smaller organisations as Ramsey (2008), state that many managers in SMEs do not regard purchasing as a key task, and some do not even perceive purchasing as a distinct activity (Ellegard, 2006). It may therefore be the case that within SME's the procurement function becomes an "add-on" activity to other executives' portfolio's, and only when the organisation reaches a certain size and scale does procurement become a function in its own right.

Expectation management is raised by Faes et al., (2000), who argue that procurement synergy initiatives often fall short of management's expectations and might even distract managerial attention, which supports the point that CEOs or presidents are sometimes less satisfied with the effectiveness of their purchasing staff and would like to see responsibilities to be more widely spread throughout the organisation than is actually the case (Deloitte, 2016). This point may be a contributor to the seemingly constant flip-flopping of trends within organisations to "Centralise" (in order to achieve synergy benefits) then de-centralise (when the procurement function is not seen as close enough to the operating units) (Nixon / KPMG, 2012). Brandmeier and Rupp (2010), states procurement is often demoted to order fulfilment, not integrated into decision-making processes and not respected cross-functionally for their expertise - a lot of procurement effort just evaporates, regardless which levers are applied. The procurement department does not belong to the "chosen few" departments where fast track careers are developed. Sales and marketing, production, research departments are considered better places to start a successful company career and learn the trade (Rupp 2010). This observation speaks volumes and could well become self-fulfilling, as if the profession is not able to attract the very best talent, then it will always struggle in the internal competition for recognition.

As can be seen from this section, the position of a poor perception has not really changed over time. There appears to be a real conflict on what "should be" the case i.e., it is obvious that there is real merit for the procurement function to be more strategic with an organisation, as compared with the current situation where there is still an issue over the perception of procurement both within and outside of the profession. This position is explored in more detail during the Chesapeake Packaging case study, as it has the potential to be a limiting factor over effectiveness.

2.5.3 Scope of Activity

The scope of procurement can be further split into two areas: *financial* (i.e., the magnitude / proportion of spend addressed), and *activity* (i.e., what is done by procurement). The financial scope in this context refers to the proportion of procurement spend as compared with the overall turnover of the organisation i.e., the potential importance of the function. "Activity" refers to the elements of the role and overall responsibilities.

2.5.3.1 Financial

There are quite a range of financial measures and metrics within the literature regarding how much an organisation spends as a percentage of its turnover. This is important as a measure of relative importance, as it is likely that an organisation who spends a high proportion of its turnover, will see procurement as more critical than an organisation who spends a relatively low proportion, although this is still to be tested. Palmer (1996), indicates that component costs typically represent more than 70% of the total cost of products and systems whilst Giunipero and Monczka (1997), comment that in North America over 60 per cent of the average manufacturing firms' total revenue goes back to suppliers for purchased items. Fawcett and Scully (1998), states that purchased inputs represent over half of each dollar spent in the United States and procurement savings translate dollar for dollar into added profit. Later publications suggest between 48% and up to 90% of turnover is spent externally with the supply base, although on average this appears to be around 60% (e.g., Tayles & Drury, 2001; Smith David, et al., 2002; Carr & Pearson, 2002; Presutti, 2003; Parikh & Joshi, 2005; Kulp, et al., 2006; Joyce, 2006; Chan & Chin, 2007).

Callender and Mathews (2000), suggested that estimates of the financial activities of Government purchasing managers are believed to be in the order of 10 - 30% of GDP, whilst Sir Peter Gershon (Gershon, 2004), in his review of UK public sector procurement stated that the public sector is one of the biggest purchasers of goods and services in the economy spending over £125 billion annually on procuring a wide range of goods and services, from everyday items such as pens and paper, to major construction such as schools and hospitals (Treasury, 2007).

Although we have seen that procurement can have a significant impact on both organisations and the economy, KPMG in their management consulting benchmarking report indicates that procurement generally influences less than 60% of spend across both direct and indirect categories (Nixon / KPMG, 2012). This links directly to the scope of procurement, and raises the question as to why procurement is not seen as a more important function within organisations and governments alike, as simply the financial impact that professional procurement can have over an organisation should be significant.

2.5.3.2 Activity

What should the procurement department be involved in? This is a fundamental question when you relate this to procurement effectiveness as the wider the range of activity, the more the potential for a lack of clarity of measurement and associated difficulty in assessing effectiveness. Earlier definitions relating to traditional procurement typically state that procurement has a narrow scope i.e., buying and contracting, however later descriptions, especially those that move towards “strategic sourcing” consider a much wider context for the activity (e.g., Sagev & Gebauer, 2001; Lindgreen, et al., 2009; Carr & Smeltzer, 1997).

Rajagopal and Bernard (1993), talks about cost containment being a viable objective for the procurement function, but that it has greater strategic importance in companies where procurement is seen as a key to competitive advantage. Wagner (1993), states that purchasing is now being asked to manage the much broader function of supply and to not just buy materials, parts and services. It continues to be held accountable for cost reductions while taking on the added responsibility for generating profits. This link to profitability is an interesting point and is explored later in the research programme. In a more traditional sense, Lau et al., (2003), state that in industrial buying, the purchasing department of an organisation often performs a gatekeeping role by collecting and transmitting information to the decision makers and other people involved in the decision making process. This however supports the very traditional view of procurement as a group that is peripheral to the decision making core.

Purchasing can also be involved in product design and development work as manufacturing costs can likely be reduced, product quality maximized, and new products brought to market at a much faster rate if purchasing brings key suppliers into product design and development at the earliest stage of the process (Joyce, 2006). Joyce goes on to say that purchasing is responsible for managing suppliers, negotiating contracts, establishing alliances, and acting as liaison between suppliers and various internal departments (Joyce, 2006).

Chan and Chin (2007), show the scope of activity in pictorial form as shown in Figure 9 below and differentiates between success factors and the goal of strategic sourcing implementation: -

Figure 9 - Scope of Procurement (Chan & Chin, 2007)

As can be seen within this section, the role of procurement has developed over time and has moved towards a wider scope of activity, although it is the experience of the author that many organisations still see procurement as an administrative function mainly involved in the mechanics of buying goods and services. This thesis, and the associated activity within the major case study within Chesapeake Packaging Ltd., has taken a wide definition and a wide scope to the procurement activity and introduces the definition of “Boundary-less Procurement” i.e., that procurement should be associated with all external expenditure, company strategy, and revenue generation, and sees the supply chain as an extension to the wider enterprise. In this context it should be integral to the complete supply chain from raw materials through to customer fulfilment and beyond.

2.5.3.3 Government Procurement

The UK Government spend over £220bn each year on procurement in over 44,000 organisations right across the UK in every sector that Government operates, and public sector spend often constitutes a large percentage of a given supply market - often between 10% and 15% (OGC 2010).

Over the past few years Government(s) have undertaken a range of different reviews into improving procurement including: -

- Byatt report on local Government procurement - Issued June 2001 by HM Government (Byatt, 2002).
- Improving Procurement - Progress by the Office of Government Commerce in improving departments' capability to procure cost-effectively (NAO, 2004).
- Releasing resources to the front line - Independent Review of Public Sector Efficiency (Gershon, 2004).
- Sustainable procurement in central Government - The National Audit Office Report (NAO, 2005).
- OGC Procurement Capability Reviews /Transforming Government procurement - (Treasury, 2007).
- The Roots Review - 2009 (Roots, 2009).

The multitude of reviews and recommendations highlight the need for improving public sector procurement, and the current post recession challenges highlight the need to remain focused on procurement within the public sector.

2.5.4 Defining Success

What is successful procurement? and why should procurement be an important function within any organisation? This section starts by exploring the reasons why procurement is important and what a good procurement function can deliver to the organisation. It then progresses on to explore the measurements and methods of measurement that are employed.

2.5.4.1 The Case for Procurement

Cost reduction is the top priority for Chief Procurement Officer's (CPO's) as they look to sustain business growth in a slowing market (Deloitte, 2016), and success is often historically described in terms of cost reduction or savings delivered to the organisation although more rarely is this described in a way that relates to business performance (Lindgreen, et al., 2009). For example, every Euro saved by the purchasing department is a Euro of profit for the firm, therefore in a firm with 10 percent profit margin, €1 in savings by the purchasing department is roughly equivalent to the profit generated by €10 in sales (Lindgreen, et al., 2009). According to Beidelman (1987), by presenting a brief summary of savings, identified as profit to upper management, the purchasing department can be cast in the role of profit centre rather than a cost centre. In their opinion this profit orientation can enhance the value of the department and increase the its role in the company decision making process. However, this could potentially be seen as misleading by the stakeholders as the concept is less tangible than a process that shows clearly defined savings and benefits in an open and transparent way. The process for communicating benefits is a key part of the research programme and is tested within the Chesapeake Packaging case study.

Thompson (1996), noted that there is also an imbalance in priority attached to sales in comparison with purchasing. Businesses spend considerably more time and money on marketing and sales than on deciding whom to buy from and how. Their research shows that, in the UK, the average remuneration in purchasing is £22,000 versus £31,000 in marketing or sales, and for every purchaser there are five Salesmen. This fact alone could be an indicator of the relative importance of procurement in an organisation. Effective purchasing is not just about price (short term) but about total cost of acquisition (long-term value) and professional procurement teams that base their expertise on negotiation and transaction skills alone are not sufficient to implement an effective procurement approach (Thompson, 1996). In their analysis, applying a strategic approach to a poorly purchased good or service generates a saving of between 20 per cent and 40 per cent and there is a clear correlation between purchasing effectiveness and relative market prices paid. Transactional purchasing leads to 102 per cent of market price while advanced techniques achieve 98.5 per cent - a savings differential of 3.5 per cent.

A move towards the procurement function being more critical to the business is suggested by Cox (1997), who comments that business success always requires two, although sometimes three major competencies, “marketing”, “ability to procure resources”, and “transformation”. Historically organisations have focused on marketing and operations (e.g., transforming inputs) however more latterly the purchasing function has increased its strategic importance (Gadd & Hakansson, 2004; Pressey, et al., 2007), and is, in some circles, becoming a new source of competitive advantage for a firm (Axelsson & Wynstra, 2002).

The link to customer satisfaction is stressed by Cox (1999), who comments that business success will be derived from companies managing to enhance the total performance of the supply chain, so that it can deliver improved value to customers. Companies are therefore looking to construct ever more efficient and responsive supply chains because it will no longer be company competing with company, but supply chain competing against supply chain (Cox, 1999). This position works within major supply chains such as automotive, although its premise is challenged where you have suppliers that are present within multiple supply chains.

According to Svahn (2009), competitive advantage does not depend solely on firms’ competence in providing competitive ranges of offerings but also draws on firms’ skill to establish superior purchasing strategies. This is because the traditional way in which economic activities are carried out is changing, as business practitioners and academics alike are being encouraged to adopt a multi- firm network context (e.g., Axelsson & Easton, 1992; Achrol, 1997; Foss, 1999). He goes on to say that firms are no longer able to develop major product or service innovations alone because of the dispersion of knowledge and technological resources driven by organisational specialisation. In addition, the growing need for greater effectiveness in their operation has forced more companies to focus on their core competencies, leading to the externalisation of the activities to supply partners and thus, to increased dependence on each other's resources and capabilities (e.g., Barney, 1986; Grant, 1996; Hamel & Prahalad, 1991).

The literature reviewed within this section progresses through the early perception of procurement as a facilitator of cost reductions, towards the later literature that stresses the level of business criticality and strategic importance. This sentiment is replicated within the profession, as much of the discussion centres on the move away from the cost reduction "badge". However, it is not clear if the stakeholders who engage with, pay for, and initiate procurement transformations have the same opinion. This discrepancy between the discussion within the profession and within the procurement stakeholders will be discussed in more detail later in the dissertation, as it is a key factor in relation to procurement effectiveness.

2.5.4.2 Efficiency vs Effectiveness

"Effective procurement" is both the topic of this research and a point of some ambiguity within both academic and practitioner worlds, therefore it is important that the term "effective" is defined. Within the literature both efficiency and effectiveness are used and discussed.

Efficiency is defined as "Functioning or producing effectively and with least waste and effort". Effective is defined as ''Productive or capable of producing a result'', while "Effectiveness" is defined as "The degree to which something is successful in producing a desired result" (Source: Collins Concise Dictionary, Revised Third Edition 1995, Harper Colling Publishers). i.e., effectiveness is results-driven, with efficiency often the means for achieving effectiveness (Gibbs, 1998). According to Seashore and Yuchtman (1967), effectiveness is the ability of an organisation to exploit its environment in the acquisition of scarce and valued resources to sustain its functioning. This definition places emphasis on long-term optimisation of organisational actions in relation to interactions between internal resources and environmental potential.

Drumond (1991), makes the distinction between efficiency and effectiveness in purchasing, arguing that efficiency emphasises the cost of purchasing and departmental operating efficiency, while an effectiveness oriented system supports the current efforts to integrate purchasing into the operation of the organisation. Svahn (2009), states that Purchasing has two primary functions concerning buyers' business strategy: operational efficiency and effectiveness. The essential difference between the two is that efficiency is connected with price-orientation and cost-reduction and purchasing strategies in supply relationships, while effectiveness is linked with improvement and value orientation (e.g., Macbeth, 1994; Axelsson & Wynstra, 2002).

Hyun (1994), argues that in a stable business environment, many companies opt to improve efficiency, but the environmental change demands increased flexibility and innovativeness. This notion is consistent with Dubois and Gadde (2000), who point out that the customisation of products and service solutions improve both efficiency and innovation. Adapted solutions reduce the need for adjustments and increase efficiency, whilst customised solutions stimulate the differentiation of offerings. Seeking effectiveness through supplier relationships therefore provide customers with opportunities for rationalisation and for development activities (Håkansson, 1987; Gadd & Hakansson, 2004).

In his review of public sector procurement Gershon (2004), defined efficiency as making best use of the resources available for the provision of public services. He goes on to further define efficiencies as those reforms to delivery processes and resource (including workforce) utilisation that achieve: reduced numbers of inputs (e.g., people or assets) whilst maintaining the same level of service provision; or lower prices for the resources needed to provide public services; or additional outputs, such as enhanced quality or quantity of service, for the same level of inputs; or releasing resources to the front line.

For the purposes of this thesis the definition of “Efficiency” is related to how well the function operates in terms of the processes used, while “Effectiveness” relates to the results of the activity. In this case you are able to have an in-efficient but effective organisation i.e., the results are good, but the overhead required to achieve the result is not optimised. The contrary also applies, i.e., you can have an efficient organisation in terms of the mechanics of the procurement process without the results necessarily being delivered by the organisation. The best solution is of course an efficient and effective organisation, where the results are delivered and the processes are optimised.

2.5.4.3 Procurement Function Performance Measurement

> “We do not need to measure everything - we only need to measure the things that matter” (Saad, et al., 2005)

This section reviews the literature on procurement function performance measurement, i.e., what aspects of procurement performance should be measured, and how should that measurement take place. In addition, in order to determine how effective procurement functions are, the literature was also reviewed for information pertaining to the results and outcomes expected of procurement activity in order to establish a benchmark.

McCampbell et al., (1995), state that the dilemma of how to measure purchasing performance has plagued the industry's professionals for more than 60 years. The impact is significant; the difficulty of purchasing performance measurement was cited early as one of the factors that not only delayed management's recognition of the function, but also restrained the compensation levels of purchasing practitioners. Dumond, (1991), states that performance measurement has been, and continues to be, an important issue in the management of the purchasing function and that performance measures are useful in that they provide guidance in decision making by focussing a buyer's attention on particular criteria e.g., delivery, quality or cost. At the same time, it must be recognised that these performance measures encourage a buyer to make certain types of decisions. For example, if emphasis is placed on cost reduction, decisions in areas of supplier selection, material substitution, or value analysis may well be made with the intent to reduce costs, as opposed to other objectives that are critical to business success. The use of inappropriate measures is highlighted by Thompson (1996), who states that most companies use inappropriate, transactional measures e.g., orders per buyer, cost of processing an order, costs as a percentage of sales, head count etc. - which bear little relation to the value that purchasing can deliver.

This debate replicates the earlier discussion on the difference between efficiency and effectiveness, where efficiency is easier to measure, rather than the end result of the activity (the notable exception being savings delivered).

Performance and remuneration is identified by Hult et al., (1998), and discusses the link between the two and comment that the use of contingent rewards where employees are only compensated for their performance tends to lead to short-term accomplishments and outcome-based reward valences (Seltzer & Bass, 1990), subsequently leading to low motivation, poor communication, lack of commitment, and conflict (Etgar, 1977; Schul, et al., 1983). This remuneration issue will be addressed during the Chesapeake action research where a performance based measurement systems was introduced within the procurement function part-way through the transformation process.

Ryder and Fearne (2003), detail purchasing key performance indicators (KPI's), and many of these measures are cited as best practice although this should be re-considered as there are a number of obvious questions that arise. For example, are they measuring the performance of procurement, or the effect on the business? By acting on these measures, would there actually be an increase in effectiveness? Again these measures are quite traditional and will be explored in more detail during this research: -

Description	How Measured
Cost Savings	Reductions in current prices x budgeted volume from effective date of reduction to financial year end
Purchase Price Variance	Variance between actual and budgeted material costs by period, by plant by commodity
Materials cost as a percentage of net sales value	Cost of raw materials as a percentage of total net sales value
Vendor Quality performance	Number of deliveries defect free divided by the number of deliveries recorded
Number of approved vendors	Number of approved vendors on approved vendor list
PO Process conformance	Number of purchase orders that are non-compliant with procurement processes
Vendor Delivery performance	Total number of deliveries received complete divided by the number of deliveries received

Table 10 - Typical Procurement KPI's (Ryder & Fearne, 2003)

Other measurement tools such as cost-management models, balanced scorecards and benchmarking are also used to identify gaps in performance and opportunities for improvement (Kennerley, 2003; De Toni & Tonchia, 2001).

It can therefore be concluded from this section that the challenge of measurement of procurement activity is not a new one, and the measurement system is likely to influence the buyers approach. A clear differentiation between efficiency and effectiveness measures is also desirable, although many measurement systems either focus on a single aspect (e.g., cost reduction) or measure the things that are easy to measure. For this research, it is essential that there is a clear process for measuring performance that is aligned to business performance (Thompson, 1996). Additionally, the measures should focus on effectiveness rather than efficiency as it is improvements to effectiveness that is at the heart of this research.

2.5.4.4 Results of Procurement Activity

What should be expected of the procurement function? KPMG have developed a Management consulting benchmarking (Figure 10) that shows the level of performance (in terms of savings), against different organisational structures and within different category areas (Nixon / KPMG, 2012).

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Figure 10 - Average Savings vs. Procurement Structure (Nixon / KPMG, 2012)

From this analysis the best performing structure provides a benefit of 4.4% on average (although the detail of measurement or the baseline is not known) however this does provide a useful indicator of performance. Additionally, they suggest that the centralised structure is best for indirect spend, resulting in a savings performance of circa 9.5%.

The Aberdeen Group (2013) report the following: -

- Spend Under Management: Best-in-Class - 89%, Industry Average - 66%,
- Laggard - 32%
- Average Yearly Savings Realized: Best-in-Class - 12%, Industry Average - 6%, Laggard - 4%
- Percentage of Purchasing Transactions Compliant with Contracts: Best-in-Class - 85%, Industry Average - 41%, Laggard - 8%

In relation to e-sourcing, Kulp et al., (2006), suggest that companies that adopt e-sourcing tools report efficiency gains of 50% (that is a 50% reduction in the time spend sourcing goods and services). In a study by the centre for advanced procurement studies, AT Kierney, and the Wacht group, concluded that companies can obtain 73% of all potential savings in purchasing by organising the sourcing process efficiently using e-tools (Friedman, et al., 2001), although the question should be raised as to whether there is a vested interest in these numbers, as there are many factors that influence the level of benefits achieved when undertaking e-procurement.

Overall this analysis provides a range of savings performance between 4% and 12%, although this is not substantiated and the method of measurement is not discussed. However, these type of benchmarks allow for an indicative analysis and are used as a guideline for the performance within the Chesapeake Packaging case study.

2.5.5 Factors affecting Procurement Effectiveness

There are a number of papers detailing theories regarding procurement effectiveness and often they promote a certain approach that has been the subject of their research. This section reviews this literature and extracts the key elements or determinant factors that should be considered when looking to improve the overall effectiveness of procurement. This section starts by reviewing the papers that have identified multiple factors, and continues on to look at the literature that focuses on specific elements that have been identified as important. It concludes with a summary of the factors, as these become the basis for the “Procurement Effectiveness Model” that is tested within the Chesapeake Packaging case study.

2.5.5.1 Multiple Factors

As early as 1993, Smith and Conway (1993), identified seven key success factors which characterise effective procurement; a clear procurement strategy, effective management information and control systems, development of expertise, a role in corporate management, an entrepreneurial and proactive approach, co-ordination and focused efforts. Trent and Monczka (1994), suggest that the factors critical to sourcing team success include the availability of key organisational resources, participation and involvement of selected suppliers when required, higher levels of internal and external decision making authority, effective team leadership, and higher levels of effort put forth on team assignments.

In general, there is no information regarding the overall weighting of any of the elements identified, for example, there is limited discussion whether having a “proactive approach” is equally important than having a “procurement strategy”. Interestingly there is little overlap in the elements offered between the three studies, which raises questions regarding the generalisability of the information offered (See Figure 11).

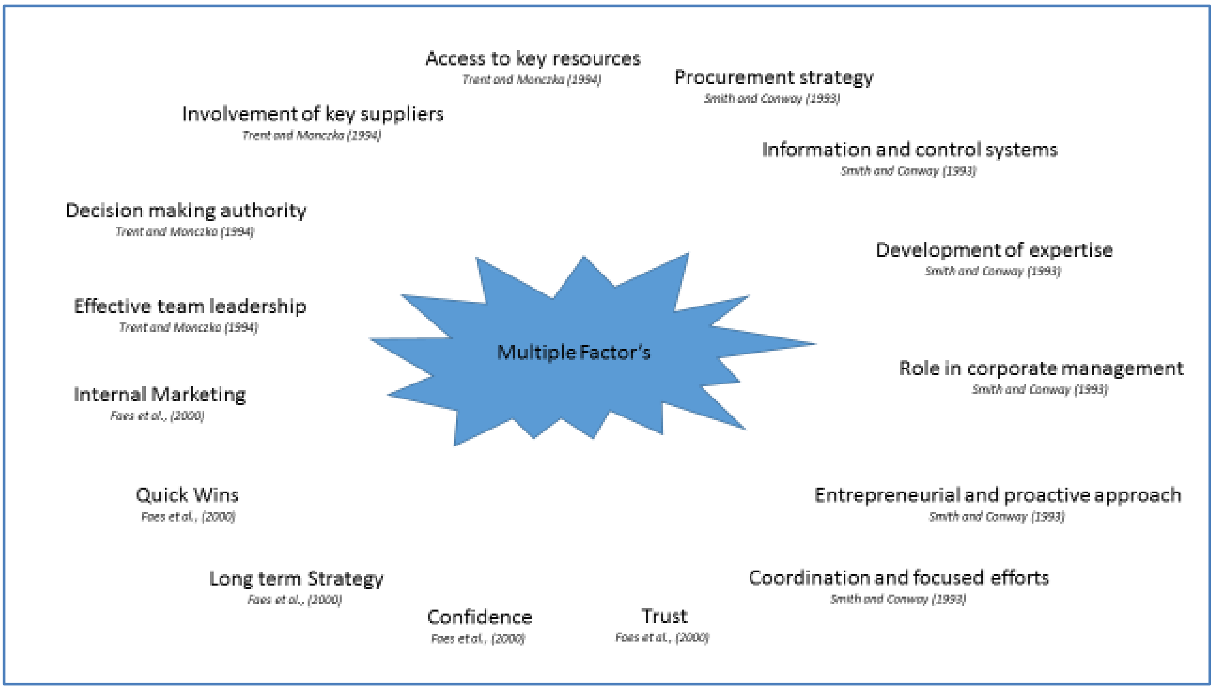

Figure 11 - Summary of studies offering multiple factors for effectiveness

The next section identifies individual elements that have been highlighted as key determinants of success for successful procurement within the literature.

2.5.5.2 Organisational Structure

There are a number of ongoing questions within the industry regarding the structure of procurement, and there is an emerging trend for companies to appoint a "Chief Procurement Officer" or CPO, typically reporting as part of the board of directors to the Chief Executive Officer (CEO), although this is still a relatively new phenomenon. Prior to this, organisations typically had procurement reporting into Finance or occasionally Operations, however the positioning of procurement may be an indicator of how procurement is seen within the wider enterprise (Ardent Partners, 2011).

There is also an ongoing debate over the relative merits of centralisation vs de-centralisation with organisations often switching from one to the other when the initiative either becomes too detached, or is not taking full advantage of the organisations relative size and scale (Nixon / KPMG, 2012). Dumond (1996), comment that centralisation enables the co-ordination of efforts and eliminates duplication by different organisational units while allowing for economies of scale, whilst decentralisation leads to greater responsiveness and is easier to measure in term of output and productivity. Faes et al., (2000), states that the quest for global efficiency and effectiveness has led to an increase in centralisation and coordination of the purchasing function, and go on to say that coordination or centralisation is mostly considered to be a logical step in the process of professionalising the purchasing function, although more recent trends are towards hybrid or centre-led structures rather than centralised.

The importance of sourcing structures is discussed by Pattersen et al., (2000), in their study of global sourcing. They found that sourcing structures were an important aspect of the development of global sourcing capabilities, especially for logistics and supply chain processes, purchasing and supply information systems.

Trent and Monczka (1994), highlight that cross-functional and cross boundary communication, coordination and alignment have become critical components, and that to be effective the team structure must encourage innovation, responsiveness, and functional integration throughout the firm's value chain. This cross boundary aspect is supported by Morton et al., (2003), in their research on informal networks where they question whether the formal structure of an organisation is important at all, and suggest that it is the informal network that is a key factor for success, i.e., it is the ability of the company to overcome the boundaries of any organisational grouping, rather than the type of organisation structure adopted. This position is also supported by Brookes et al., (2007), and identifies "trust" as the key element in effectiveness, and is therefore more aligned to the building of cross boundary personal relationships. This concept will be discussed further in the research, as the ability to build credibility and trust, and to effectively influence stakeholders is one of the key competencies identified in the procurement competency skillset.

In relation to the public sector, Gershon (2004), drawing on observations of best practice, developed a model for the back office function comprising of three elements:

- Corporate core - setting high level policies and procedures, within which efficiency can be promoted by seeking to develop "off the shelf" policies which work across the organisation, for example defining common staff reporting procedures; releasing resources to the front line, identifying the scope for efficiencies
- Core expertise - active management of key strategic functions, where the focus ought to be on delivering a professional service which enhanced the efficiency and effectiveness of the organisation as a whole, for example through active sick absence management or best value strategic sourcing;
- Transactional support services - replicated processes such as invoice raising, which could be made more efficient by a combination of simplification, standardisation and sharing to deliver economies of scale.

This appears more akin to a centre-led approach, although promotes a more centralised structure for the transactional aspects of procurement - an indicator perhaps of the efficiency vs effectiveness debate earlier in the text.

Driedonks et al., (2010), suggest that part-time memberships of procurement functions are still common in sourcing teams, and is a risk in that their members may prioritise other responsibilities outside the team. They go on to say that functional integration is a necessity for further development of the purchasing function, and that purchasing managers tend to perceive this integration as a troublesome process.

KPMG (2012), suggest that whilst the majority of procurement organisations have already adopted a more centralised operating model, many still face challenges in translating this into strategic value for their businesses. They suggest that CPO's and Supply Chain Directors will increasingly find themselves reassessing their operating models to squeeze greater value from their activities, in order to deliver efficiencies at a reduced operating cost. They go on to say that half of all respondents indicated that they had adopted either a centralised or centre led operating model, which also reported the highest levels of cost reduction and spend under management. This should however be debated further, as the centralised model is quite different from the centre led model, however both options show that an organisation has started to focus on procurement which may result in a higher performance either way.

As can be seen from this section, the debate regarding structure continues. The points made by Moreton et al., (2003), with regard to trust would apply irrespective of formal structure and the issue of centralised, centre-led or de-centralised is probably therefore situational dependent. In the Chesapeake Packaging case study, a “Centre-Led” approach was adopted, with strong regional representation. The relative merits of this structure within this case study is discussed later in the thesis.

2.5.5.3 Purchase to Pay Process (P to P)

In relation to the earlier discussion of efficiency vs effectiveness, the procure to pay process can have a direct impact on the efficiency of the procurement function. Hult et al., (1998), talk about the concept of “time is money,” being true for most organisations, and that efficiency could be seen as a strategic weapon and is the equivalent of money, productivity, quality, and innovation (Griffin, 1993; Stalk, 1988). Hult returns to this concept with Hult and Nichols (1999), and talks about the purchase to pay process (P to P), and relate procurement cycle time as one of the most important performance indicators (of efficiency rather than effectiveness).

2.5.5.4 IT Enablement / e-Procurement / Data Management

A number of papers cite IT as an enabler of procurement effectiveness (e.g., Aberdeen Group, 2013; Dumond, 1991; Gershon, 2004; Johnson, et al., 2007; Knudsen, 2003; Kulp, et al., 2006). There has also been a trend towards data management techniques (Data Mining) and e-enabled procurement systems (e-RFx's) such as e-auctions and the like. Palmer (1996), talks about Enterprise Requirements Planning (ERP), Product Data Management (PDM) and Component Supplier Management (CSM) as a way of building bridges between different parts of the organisation in order to increase overall effectiveness. Dumond (1996), talk about the importance of information flow and the systems that create that flow and comments that this allows teams, individuals and managers to improve performance and innovate. What is without doubt is that the availability of key information is an important part of the process for improving procurement, however the question should be raised whether this is a determinant factor of effectiveness, or whether it is simply an enabler that impacts the efficiency of the process or the speed at which the procurement plans can be developed and implemented.

Sagev and Gebauer (2001) specifically review indirect procurement and the impact of internet related technologies. They discuss the development of “Desktop Purchasing Systems” designed to automate and support purchasing operations, which often facilitates non-purchasing personnel to buy more effectively and to increase the level of purchase compliance to centrally negotiated contracts. This approach keeps the transactional side of procurement within the business whilst allowing a degree of control at the centre, which is akin to the current thinking on e-Catalogues.

In the public sector, Byatt (2002), comments that local authorities should increase their use of simple forms of e-procurement such as purchasing cards and BACS payments and should adopt a modular approach to the implementation of e-procurement solutions. Knudsen (2003), expands on this and states that e-procurement is not one single application but consists of many different tools, which is also supported by DeBoer et al., (2001), who identified and described six forms of e-procurement applications; e-sourcing, e-tendering, e-informing, e-reverse auctions, e-MRO, Web-based enterprise resource planning (ERP) and e-collaboration.

IT investment, especially within the public sector has received a degree of attention and Gershon (2004), commented that the Government has committed some £4.5 billion to investments to modernise the delivery of services in police, schools and the health service. He commented that the investments offer great potential for enhanced frontline delivery through for example reducing the time spent by professionals in accessing and handling information (Gershon, 2004). It is however, a source of great frustration that the benefits promised from a large IT infrastructure project, especially within the public sector, often falls short of expectations. This point is supported by KPMG who comment that whilst supply chain technology and business systems have evolved rapidly, many Procurement functions seem unable - possibly unwilling - to leverage these new capabilities in order to bring greater automation to the business. In many cases, the situation is even more alarming in that having made the investments, the benefits are still yet to be realised. They go on to comment that businesses will increasingly be looking to Procurement to maximise their existing systems and technology to provide greater clarity into the Management Information and Business Intelligence processes (Nixon / KPMG, 2012).

2.5.5.5 Maturity of the Procurement Function

By attending any of the major procurement conferences over the last few years you will likely have heard from a number of companies who are on a "journey" in regard to improving the professionalism of their procurement function. This journey may well be perpetual, however it is quite surprising how many of the larger and more well-known organisations have only recently initiated their transformation. Over time, the degree of maturity of procurement (post transformation) within the organisation should increase, and therefore there should be increasing opportunities to build credibility through enhanced delivery performance. There are a number of phases that an organisation will go through, for example Barry et al., (1996) has created a development model for effective MRO (Maintenance, Repair and Overhaul) procurement and determine three phases of maturity, namely:

- Phase 1 - Basic Purchasing Process,
- Phase 2 - Enhanced procurement practices,
- Phase 3 - World-Class procurement practices

This model was based on a study of 58 firms. Phase 3 procurement is characterised by the existence of a broad purchasing strategy supportive of overall corporate and product specific goals. In this stage, procurement's role is highly visible although in their study, most organisations were at Phase 1 or Phase 2. Mathews (2005) supports this position from a public sector perspective and comments that there is little evidence that public procurement has penetrated the theoretical boundaries of public management or strategic management despite the profession's efforts over more than a decade to develop its profile.

Driedonks et al., (2010), refers to Pinto et al., (1993), and comments that formalisation refers to the emphasis placed on following rules and procedures in performing a team's job. In their analysis, formalisation appears to be positively related to the effectiveness of cross-functional teams. In later publications Driedonks et al., (2014), comment that clear and fair rules and procedures can create internal support for team outcomes (Andrews, 1995; Chan & Mauborgne, 2003). This support is critical for sourcing team success, since they typically rely on others in the organisation to implement contracts and achieve compliance. Formalisation could however be perceived as bureaucracy and could well be one of the "mental model" (Hult and Nichols 1999), barriers that are perceived to slow the process down.

KPMG, in their report “Management-consulting-benchmarking” determined a four level maturity model shown in Figure 12 below. Their research indicated a direct link between cost savings and maturity in category management, strategic sourcing and SRM. Although a very simple concept, the model could be useful in helping an organisation to see the potential. The concept of an organisation reaching “excellent” within procurement is however dangerous as there is neither an accepted definition, or any concept of future ongoing improvement. i.e., is the job done when excellence is achieved?

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Figure 12 - Four Level Maturity Model (Nixon / KPMG, 2012)

2.5.5.6 Governance

Governance relates to forms of control, measuring, and / or reporting of procurement activity. It can be argued that finance and procurement are not sufficiently aligned and this misalignment can result in a conflict between the achievements stated by procurement and those confirmed by the finance department (Nixon / KPMG, 2012). Buvik (2002), commented that there is little empirical work actually focusing on governance performance, for instance on whether the alignment of hybrid procurement arrangements really reduces transaction costs when asset specificity rises substantially (exceptions include Dahlstrom & Nygaard, 1999; Pilling et al., 1994; Sriram et al., 1992; Walker & Poppo, 1991).

The strong alignment between procurement and finance is stressed within a public sector environment e.g., Gershon (2004), who indicates that strong financial management is essential to the efficient use of resources and a pre-requisite to the successful delivery of major efficiency programmes. Gershon suggests that a senior finance representative is given the task of oversight of the procurement governance arrangements, which would therefore offer a degree of independent verification. It is this independent verification that is deemed an important factor in relation to credibility.

In their study of how GlaxoSmithKline (GSK) implemented e-Procurement, Kulp et al., (2006), comments that to improve their purchasing and supply-chain performance, organisations must pay attention to compliance. In several instances, GSK's implementation of advanced e-sourcing tools would lose effectiveness without its careful attention to organisational control systems. They go on to say compliance on indirect product purchases is not high - during 2003, GSK saved $400m in procuring indirect products and services and they estimate that it could have saved another 20-30% (between $80 and $120m) if it had full compliance. The issue of post implementation verification is also inherent in this discussion, i.e., assurance that the procurement initiative has actually been adopted, and continues to remain in place after the initiative itself has been completed.

In the Ardent Partners (2011 p8), "CFO CPO One World Two Worldviews" report, they detail an interview with Ron Carcamo the CPO from Yahoo. "If my team can show that it made a material impact on the contracted goods and services (i.e., lower price, avoidance of inflation, additional free maintenance support etc.) we should get credit for our contribution, whether or not, the new price is lower than what we previously paid. Why else would we be involved in these projects?" However, this viewpoint is not supported by Jacques Beaussart CPO Key Bank, who commented that "if our saving does not impact the budget, we do not count it. We never consider including cost avoidance in our group savings metrics, it would undercut our credibility with the CFO." This debate between senior procurement representatives highlights that there is still little agreement on savings definitions, and is another area that could provide a degree ambiguity leading to questions over the robustness of any governance process and associated savings reporting.

It is clear that governance is a key issue for procurement effectiveness, not only in the management of process and benefits reporting, but also in striving for credibility within the wider organisation.

2.5.5.7 Communications and Marketing

"The onus is on the CPO in the relationship to demonstrate, clearly and unequivocally, procurements value proposition to finance"

John Patterson, CPO for IBM (Ardent Partners (2011p.3)

Communication and marketing in its widest sense should be important for all functions, not just the marketing and communications department. For procurement, it is equally important as the previous section on performance measurement and governance has highlighted, there can be some ambiguity in terms of measurement leading to an unclear position as to whether a function has performed well or badly. We have also seen in previous sections that “mental models” often dictate the perception of procurement (Hult and Nichols 1999), and the procurement function has to make a concerted effort to dispel those beliefs and change those views. It is therefore important to include communications and marketing within the scope and discussions on procurement effectiveness. This section also covers literature pertaining to information flow and objectives / the objective setting process.

According to Brookes et al., (2007), communication is a determinant of team effectiveness as boundary-spanning sourcing teams need to communicate extensively with internal and external stakeholders. Purchasing professionals increasingly need to rely on their communication skills, and this activity should be added as a key process for enhancing effectiveness within the team and for improved external collaboration (Hoegl and Gemuenden, 2001; van Weele & Rozemeijer, 1996). Active management of the communication process is also supported by Hult and Nichols (1999), and requires an ongoing education and communication process. They state that in many cases purchasing personnel would also be well served to keep users better informed regarding the status of user requests for products and services. They go on to say that efforts to create an environment that is characterised by openness and information sharing will likely lead to user flexibility. If the users perceive that they are participating in a purchasing process that is characterised by the development of a shared vision, they are likely to feel that the buying centre is committed to meeting their needs.

This “shared vision” is supported by Faes et al., (2000), who talk about confidence building measures and state that coordination might essentially be an internal marketing activity by the purchasing staff. In their opinion, coordination cannot work unless real advantages are offered to the parties involved which means that the coordinator must make results visible. This cannot be done unless coordinators use their powers of persuasion and sales talent. In addition, local buyers must be kept motivated for coordination, despite losing their own say in some major sections of their purchasing activity. In their research clear and open internal communication was most frequently stressed by participating managers as a “key to success.” As such, good coordinators might use an arsenal of marketing tools during global synergy projects.

Objectives based policy deployment is a way of linking departmental objectives to the corporate strategy (Chan and Chin 2007), and an effective objectives management process is important in improving senior management’s recognition of how well sourcing functions and personnel perform (Carr and Smeltzer, 1997; Lajara and Lillo, 2004). Freeman and Cavinato (1992), comment that the process of objectives cascade must begin with the senior purchasing executives responsible for the strategic direction of the function and subsequently flow down through all levels of the organisation in order to ensure alignment (akin to a Policy Deployment

/ Hoshin Kanri type process). However, this is not always the case for many organisations and it is not uncommon to come across competing objectives, i.e., objectives that are in direct conflict. An example of this is a cost reduction target in isolation of a working capital one, leading to procurement savings being achieved by increasing minimum order quantities, resulting in a higher level of working capital that effectively ties up cash within the business. Gibbs (1998), comments that purchasing as providers of the main inputs to the organisation, are critical to the survival of the business and must therefore ensure that their goals and objectives do not detract from this primary requirement.

Timely and accurate information is important according to Kraljic (1983), who comments that too often the Purchasing Department receives information on the company's business plans and objectives that are incomplete or improperly geared to the tasks and time horizons of strategic supply management. The Purchasing Department needs this data for negotiating prices, rescheduling supply quantities, and balancing raw material inventories in response to cyclical demand swings. This is important in terms of the scope of procurement, as the ability to influence early on in a process is much more efficient and effective than later when cost has effectively been “engineered in”. However, it is still often the case that purchasing involvement is only initiated at the latter part of the process and therefore has limited scope to influence cost (Lindgreen 2009).

From the literature reviewed within this section it can be concluded that communication is extremely important in relation to procurement effectiveness, from being involved early in a process, through to the distribution and dissemination of objectives based information. It is also clear that these communication processes need to be proactively managed.

2.5.5.8 Senior Level Support and Compelling Case for Change

In the early nineties, researchers reported insufficient internal and external authority as barriers to sourcing team success. Cross-functional sourcing team’s level of internal and external decision-making authority relates directly to team performance (Trent & Monczka, 1994). Rajajopal and Bernard (1994), support this and comment that successful global sourcing requires top management commitment and allocation of resources in order to be successful.

The degree to which this senior level support has been explored is limited, although many authors cite it as important. For example, Pattersen et al., (2000), comments that the relationship between top management support and global sourcing effectiveness is quite strong. They suggest that this effect is interesting in two respects - first, it suggests that the purchasing function has been raised to a strategic level in many organisations and that purchasing strategies are increasingly viewed as a potential source of competitive advantage.

Second, any global sourcing effort undertaken without the necessary commitment and support of top management is unlikely to succeed.

In a public sector context, Byatt (2002), stressed the importance of elected member's involvement in the purchasing process in order to raise the profile of purchasing. They commented that elected members should take a strategic role in securing quality outcomes, and involvement should include scrutinising the procurement processes and monitoring the outcomes of procurement activity. Gershon (2004), supports this position and announced a review of new ways of providing departments, their agencies and other parts of the public sector with incentives to exploit opportunities for efficiency savings, and so release resources for front line public service delivery. They comment that the review team was supported by the Prime Minister and Chancellor and were targeted to deliver £20 billion of annual efficiency gains by 2007-08.

This engagement at the most senior level of government is also true in the US where in August 2001 their competitive sourcing programme was positioned as a government wide initiative, and was part of the president's address (Anonymous, 2005). The president's management agenda expected results for the competitive sourcing initiative to encourage innovation, increase efficiency, and improve performance of agencies - an example of support at the highest level.

The position of senior level commitment as a prerequisite for success is supported by a number of authors (Fassoula, 2006; Chan and Chin, 2007; Carr and Smeltzer, 1997; Lajara and Lillo, 2004), although there is no discussion as to what this actually entails. KPMG suggest however that it is procurement that is slow to evolve in the creation of circumstances where senior level support is assured. They comment that for procurement to achieve a place at the table, more work should be done to align with key stakeholders and truly understand the business operations. This means moving up the value chain to ensure that the function is involved much earlier in the decision making process and clearly demonstrating how active involvement adds tangible value to both the bottom and the top lines (Nixon / KPMG, 2012).

A mandate for success is supported by Driedonks et al., (2014), who comment that not uncommonly teams report a lack of mandate as a barrier to success, especially when the teams try to close a contract (Englyst, et al., 2008). On the one hand, sourcing teams require a clear mandate to develop and execute a sourcing strategy, a so-called license to act, whilst on the other hand, managers should provide sourcing teams with clarity regarding roles and responsibilities through formalised sourcing procedures (Kirkman & Rosen, 2000). They go on to say that receiving appropriate authority increases team effort and effectiveness in general, and for cross functional teams in particular (Holland, et al., 2000). In their study, internal authority proved to be the strongest predictor of sourcing team effectiveness, with effects being mediated by enhanced internal communication and increased member efforts.

The effects of senior level support are clearly important and will be verified as part of the Chesapeake case study, where the indicators of support (or lack of support), will be identified and tested in relation to their impact within the transformation programme.

2.5.5.9 The Approach Taken by the Procurement Function

This section looks at both the approach to transformation, and the approach to supply base management.

According to Faes et al., (2000), the approach taken to the transformation of procurement is cited as an important component and that it is the approach that ultimately determines success. They then go on to highlight a number of issues including:

- The domino and inertia principles
- Successful purchasing coordinators apply internal marketing tools
- Choosing a first coordination project is a core issue for the corporate purchasing staff wanting to realize purchasing synergy
- Planning and executing over a longer period of time
- Patience in the construction stage
- Confidence building measures and communication
- Trustworthiness and supplier relations

Gottfredson et al., (2005), suggest that an organisation embarking on the change needs to stop focusing on incremental cost improvement targets, step back, and re-evaluate the strategy and company capabilities. They identify three steps within the implementation process namely: -

- Identify the components of your business that represent the core of the core
- Deciding what you should outsource
- Reality check in which you determine whether a capability that is a strong candidate for strategic sourcing can be carried out at a distance without any loss of quality

The approach supply base management is also an important consideration. Within the previous definitions of traditional procurement, the function was typically administrative and often focused on purchase order management (Mathews, 2005). Within the later definitions of more strategic procurement, a number of different approaches have been identified and are discussed in the following sections.

2.5.5.9.1 Kraljic and Portfolio Management

Gelderman and Semeijn (2006) - refer to Gelderman and VanWeele's definition of portfolio modelling in the context of strategic purchasing as a tool that combines two or more dimensions into a set of heterogeneous categories for which different (strategic) approaches are recommended. One of the most recognised portfolio tools used within the purchasing profession is Peter Kraljic's portfolio from his seminal paper published within the Harvard Business Review in 1983 "Purchasing must become Supply Chain Management" (Kraljic, 1983) - The Krajic Matrix (Figure 13) is at the heart of many procurement training programmes, however it can be argued that the matrix is often misunderstood and misinterpreted although this will be discussed in more detail later in the thesis.

According to Kraljic a firm's supply strategy depends on two factors: (1) profit impact and (2) supply risk, and his model has had a broad influence on professional purchasing (e.g., Kamann & Bakker, 2004; Gelderman, 2003). Kraljic's paper initiated a stream of conceptual and empirical research on the use and possibilities of a portfolio approach in purchasing (e.g., Gelderman and Van Weele, 2002; Wagner and Johnson, 2004; Duboisa and Pedersen, 2002; Zolkiewski and Turnbull, 2002; Bensaou, 1999; Olsen and Ellram, 1997), and other scholars have introduced variations of the original Kraljic matrix (e.g., Syson, 1992; Hadeler and Evans, 1994; Olsen and Ellram, 1997; VanWeele, 2002). Cox (2015), brings in the power perspective, and Schuh et al., (2008), refers to AT Kierney adaptation known as the Purchasing Chessboard. The resulting matrices are quite similar to the Kraljic matrix in that they employ comparable dimensions, and derive largely equivalent recommendations with one approach being typically recommended for each quadrant.

With the help of this matrix, professional purchasers can differentiate between the various supplier relationships and choose strategies that are appropriate for each category and thereby effectively manage suppliers (Nellore & Soderquist, 2000).

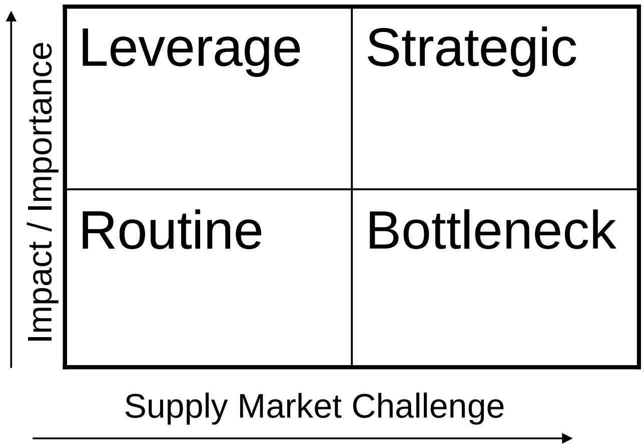

Figure 13 - Portfolio approach - (Kraljic, 1983)

The portfolio approach, based on Kraljic (1983), is used as a key component of this research, as it defines a differentiated approach to supplier management based on the supply market that is prevalent. However, in the Kraljic model, it is only the view from the purchasing organisation (customer) that is considered and the opposing view from the perspective of the supplier regarding the customer organisation is largely ignored. Steele and Court (1996), introduce the supplier view of the customer into a comparable matrix assessment. See Figure 14 below: -

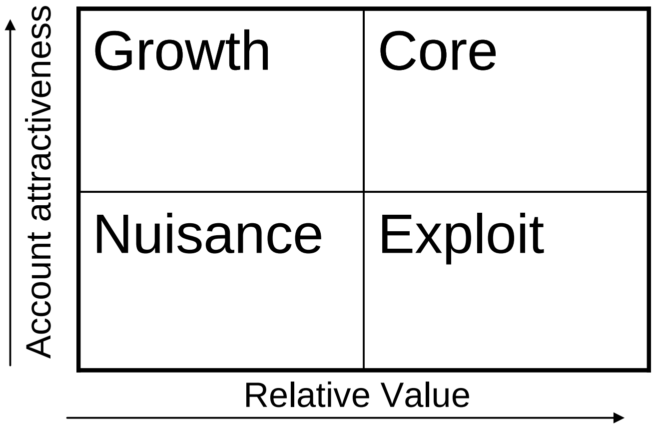

Figure 14 - Supplier view of the Customer (Steele & Court, 1996)

They suggest a relationship between account attractiveness and relative value of the business (as a proportion of the total book of business of the supplier) as key determinants of the strategy that the supplier will follow when dealing with the customer. (i.e., the other side of the equation when comparing to the Kraljic theory). The analysis suggests that there would be a different approach taken based on how they perceive the customer. They state that a supplier who would classify you (as a customer) as “Growth” or “Core” is more likely to react positively to an initiative, than suppliers who see the customer as a nuisance or exploitable.

In the Chesapeake Packaging case study, the combination of both the Kraljic (1983), and the Steele and Court (1996), analysis is adopted in order to provide a more complete picture of the dynamic within the marketplace in order to determine the most effective supply chain strategy, as it considers both sides of the table at the same time.

2.5.5.9.1 Partnerships and the Power Perspective

One of the quadrants within the Kraljic (1983), matrix suggests building up closer and more strategic relationships with suppliers where there is both a high supply market challenge and a high impact to the business. Lamming & Cox (1995), question this approach and have highlighted that one side of the dyad cannot control the relationship and therefore the imposition of rules by one would not work, instead the emphasis must be on influencing and enabling.

Cox (1999), states that practitioners need to understand what the nature of their supply chains are, before they begin to attempt to implement particular strategies or operational practices and cites the reason for this is because in Western (as opposed to Japanese) culture most suppliers are basically opportunistic rather than deferential, and have little real incentive to tie themselves to one customer unless they are forced to do so. Additionally, the work of Williamson (1985), stressed that parties to a relationship will be motivated by self-interest and will therefore seek to maximise opportunities for their own organisation.

The concept of collaborating for mutual advantage within the supply chain is supported by a number of academics (e.g., Lamming, 1993; Womack, et al., 1990; Harland, 1996), by building better relationships with trusted suppliers, activities which do not add value to the organisation could be passed to suppliers who have better capability. The supply chain could therefore be seen as an extension to the organisation, with all activities interlinked with the objective of delivering customer satisfaction to the final recipient leading on to and supporting the concept of competing supply chains (Cox, 1999).

Goffin et al., (2006), comment that “partnership” has become a “buzzword” because as Brennan (1997, p. 768) notes, ‘‘fashionable managerial expressions are prone to over-use, abuse and consequently to devaluation ... the same fate awaits, or may already have befallen buyer/supplier partnerships.’’ Researchers have investigated the contextual factors that make partnerships appropriate and viable (e.g., Stuart & McCutcheon, 2000), and comment that typically, a range of different relationships will be appropriate within the supplier base at any one time which links back to Kraljic (1983). Ziropli and Caputo (2002), identified a complex set of factors that are essential for the establishment of effective supplier relationships including: long-term contractual agreements to reduce uncertainty and support investments, suitable use of financial monitoring techniques such as target costing (to put enough focus on efficiency), and information sharing.

Developing and maintaining high levels of trust has often been identified in the literature as an essential issue in partnership based relationships (e.g., Scott and Westbrook, 1991; Brookes et al., 2007). Trust is not simply an input to a relationship; it is both a pre-requisite and an outcome of relationship development (Johnson & Selnes, 2004). In recent years, firms are increasingly moving away from an adversarial relationship management style toward a logic of building long-term and trust based relationships with selected key suppliers in order to consolidate their supply bases (e.g., Kalwani and Narayandas, 1995; Narayandas and Rangan, 2004; Spekman, 1988). By adopting flexible manufacturing strategies and design-to-cost approaches, key suppliers can assist customers in focusing on process improvement, waste elimination and to engage in joint product development activity in order to develop new and innovative solutions to market opportunities (Eggert et al., 2009).

There has been much written about relationship management and partnering with suppliers. This development of a partnership approach is further developed within the Chesapeake Packaging case study, where a close relationship with one of their key raw material supplier was developed.

2.5.5.9.2 Make vs Buy and Core Competence

One of the more strategic activities that procurement may become involved in is the decision on what an organisation makes themselves as compared to what they decide to buy from the market (Brandes, 1994; Gadde and Hakansson, 1994; Bryntse, 1996). This has an obvious impact on effectiveness in that more effective procurement functions are the ones that have sufficient presence in order to influence the make or buy decision rather than being subject to it. Studies show that some firms opt for concurrent sourcing (i.e., they simultaneously make and buy, but with emphasis on one or the other) (Parmigiani, 2007), thus, in the opinion of Parmigiani the key questions are less concerned with the make-or-buy dilemma than with whom to collaborate in supply activities. However, these issues have not received sufficient attention in the research literature and this “half-way-house” approach could suggest that the strategy is not at all clear and may be the result of a tactical evolution of supply chain management. For example, a supplier has let them down in the past so they bring the capability in-house under the justification of “just in case” risk management.

Carr and Pearson (2002), refer to Hamel and Prahalad (1990), and argue that a competitive advantage begins by building core competencies that are superior to the competitor’s, which again supports the position that these decisions are incredibly important to the competitiveness and viability of an organisation. In the case of Chesapeake packaging it was the competency of procurement and supply chain management that was offered as a differentiator with key customers such as GSK or Astra Zeneca, although this is covered in more detail later in the thesis. It is of course a natural extension to this debate that once the core competencies have been identified, suitable supply chain players must be found and managed effectively to ensure the ongoing performance of the business as a “one-size-fits-all” approach may lead to further problems down the line.

Core competence thinking is often associated with the Japanese approach to manufacturing in the 80’s and 90’s and has been much promulgated (Hamel and Prahalad, 1990), although there is little evidence that the Toyota model informed by Hamel and Prahalad's (1990) is widely applicable. The core competence paradigm is based on companies understanding what internal skills and resources they need to control in order to sustain their business success. The Toyota approach appears to have been based on a similar view, but one that was extended to the total primary supply chain in which they were positioning themselves. It is also based on the understanding that the key strategic decision within the company - the entrepreneurial make-buy decision - is always a supply chain management one (Cox 1999). This difference of position could have a significant impact on the strategy that a sourcing department takes and is an area that is considered as part of the action research within Chesapeake packaging.

2.5.5.9.3 The Concept of Value

Value is an important concept to clarify from the point of this research, as an unclear definition can cause ambiguity when talking about effectiveness. The development of global sourcing was often undertaken on the premise that prices were lower in certain regions, especially in developing countries such as China, however the race for lower prices was often undertaken in a fairly myopic way, i.e., with a focus on ticket price rather than the full cost to the business (Dumond 1996). This then raised questions regarding the benefits associated with sourcing decisions and the term “Value” has now been widely adopted by the profession as a way of indicating a wider approach than to simply focus on ticket pricing. Dumond (1996), defines value in terms of the benefits that people place on an item and can be inferred from what they are willing to give up for it, however the definition of value that is perhaps most useful to managers is that value equals “customer benefits minus customer sacrifices" which both focuses on the customer and the product rather than just the product in isolation and considers economic and non-economic factors (Dumond 1996). This approach leads on to a consideration of the total cost of acquisition and is detailed in the next section.

2.5.5.9.4 The Total Acquisition cost approach

It was the Japanese who first pushed the theories of total cost, taken from the teachings of Deming, and it is an adaption of this approach that today manifests itself as the "total acquisition cost" approach within procurement, i.e., that purchasing decisions should be made based on all of the elements of cost that an organisation sees, i.e., cost of poor quality, delivery etc.

Cox (1999) comments that Toyota recognised that with effective control over external quality, cost and innovation, it was possible to compete strategically by passing more value to the customer than its direct competitors were doing. However, Cox also comments that it is somewhat surprising that the bulk of supply chain thinking has tended to focus on the operational aspects of the process, rather than those that are of strategic importance. The systematic utilisation of cost measurement in outsourcing is quite rare in practice (Lindholm and Suomala, 2004), and a model for total acquisition cost was developed by Song, et al., (2007), although this model is not directly applicable to the Chesapeake Packaging case and an alternative model that was originally developed within Lucas Aerospace is used instead and is detailed in section 4.5.6.

2.5.5.9.5 Supply Chain Management

Another body of literature relates to the subject of supply chain management, and under this banner Cox (1997), describes it as a way of thinking that is devoted to discovering tools and techniques that provide for increased operational effectiveness and efficiency throughout the delivery channels. Ting and Cho (2008), define a supply chain as a complex network, which consists of all stages (e.g., order processing, purchasing, inventory control, manufacturing, and distribution) involved in producing and delivering a final product or service. They go on to state that the entire chain connects customers, manufacturers and suppliers (Ting and Cho 2008). Svahn and Westerlund (2009), indicate that a supply network can be described through its web of actors and the activity pattern they carry out through their resource constellation. They also comment that the analysis of purchasing strategies of companies operating in inter-organisational relationships requires constructs to describe the organisation of a supply network, the characteristics of participating organisations, and the alternatives concerning suppliers. It is the latter definition that links purchasing and supply chain management and is useful as for this research.

Within this research the definitions of supply-chain and strategic sourcing are seen as interchangeable, and it is this wider scope of procurement that leads on to the concept of "Boundary-less Procurement" which is discussed later in the dissertation, although refers to a wide scope of influence and operation.

Building on the theme of supply chain management, the concept of "Lean" which is often associated with manufacturing effectiveness is introduced in relation to purchasing and supply chain. Hines (1996), refer to the book by Womack et al., 1990, "The machine that changed the world" and defines lean as a system that uses less of all inputs to create outputs similar to the traditional mass production systems (Hines 1996). He also identifies five key attributes for lean: -

- Define value as perceived by the customer
- Identify the value stream
- Make the value stream flow
- Flow at the pull of the customer
- Strive for perfection

Cox (1999), refers to lean in the context of purchasing and supply and identifies eight defining characteristics of the lean approach:

- Strive for perfection in delivering value to customers
- Only produce what is pulled from the customer just-in-time and concentrate only on those actions that create value flow
- Focus on the elimination of waste in all operational processes, internally and externally, that arise from overproduction, waiting, transportation, inappropriate processing, defects and unnecessary inventory and motion
- Recognise that all participants in the supply chain are stakeholders and that we must add value for everyone in the business
- Develop close, collaborative, reciprocal and trusting (win-win), rather than arms-length and adversarial (win- lose), relationships with suppliers
- Work with suppliers to create a lean and demand-driven logistics process
- Reduce the number of suppliers and work more intensively with those given a preferred long-term relationship
- Create a network of suppliers to build common understanding and learning about waste reduction and operational efficiency in the delivery of existing products and services

The lean supply approach is specifically tested in terms of the supply of paper into the Chesapeake packaging plants, where systems were developed to integrate Chesapeake demand into specific supplier mill making schedules, thus allowing a lean approach to the supply of paper and board.

2.5.5.10 People

Many procurement consultant companies have identified processes that should be followed in order to improve the effectiveness of procurement. These five or seven step processes are often placed at the heart of a procurement transformation activity and in some ways may be an attempt to standardise and de-skill the process. Often this is driven as a way of creating an approach that is simple to measure and manage, thereby potentially downgrading the role of the person in the process to one of simply following a pre-defined approach. Is this a way of actually increasing the effectiveness, or is this driven by a lack of trust in the people that they have running procurement processes? This section reviews the literature relating to education, training, competencies, skills and knowledge in order to determine the level to which the people part of the process is important.

Sixty-two per cent of CPO’s don't believe their teams have the skills to deliver their functions strategy and therefore securing, retaining and training the right talent pool is a key priority (Deloitte 2016). In a public sector environment, Byatt (2002), commented that local authorities should identify all those engaged in procurement and should set out a strategy for their development including the recruitment of suitable staff, training and ways of retaining trained staff within the organisation.

Driedonks et al., (2010), comment that sourcing teams are often hindered by a lack of team perspective in many purchasing organisations. They go on to say their findings suggest that employee involvement, context and team processes explain the variance in performance of sourcing team effectiveness and confirms that purchasing organisations risk overlooking the people issues (Fawcett et al., 2008). They suggest that rather than focusing on technology, information and measurement systems, purchasing managers should enhance collaboration, teamwork and empowerment. Team members who have been trained in team-working skills are significantly better able to work together as a team and cooperate more effectively with others outside the team, in order to achieve cost savings and best-in-class supplier selection. Much has been written regarding the skills and knowledge in relation to procurement and it is important to differentiate between “competence” and “competencies” as there appears to be some confusion over the meaning. Bartram (2005), defines competencies as sets of behaviours that are instrumental in the delivery of desired results or outcomes, and is at the heart of the OPQ DEFINE analysis used within this research. According to Mansfield and Mathews (1985), competence is performance against a standard which is composed of: -

- Tasks - Skills that are used in a routine way in tasks that have a defined outcome
- Contingency management - competence when things go wrong or in unusual circumstances

- Task Management - skills used in a number of tasks e.g., planning, organisation
- The role / job environment - skills of working with others within and from without the organisation and is responding to the critical issues of cost values or safety

For the purpose of this research “competence” is defined as the ability to perform a task satisfactorily against a defined expectation or specification (as per Erridge and Perry, 1993; and Mansfield and Mathews 1985). “Skills” and “Knowledge” relate to the level of ability and understanding that is a determinant of the level of competence. The Bartram (2005), definition of competencies is favoured due to its reference to behaviours and the link to the approach that is taken.

Leadership of procurement functions may be a determinant of success and Hult and Nichols (1999), comment that (transformational) leaders have generally been described as exhibiting certain leader practices beyond the foundational dimensions of task structure (e.g., Hater and Bass 1988). They suggest that attributes including; attributed charisma, inspirational leadership, individualised consideration, intellectual stimulation and idealised influence are important. This position is supported by Keller (2006), who states that transformational leadership is an inviting, participative style of leadership in which a communicative leader challenges team members with high performance standards, while allowing them to find their own way of making this work.

This section has highlighted the importance of people in relation to the success of procurement, and has also identified transformational leadership is a key factor. None of the literature however goes into the detail of the traits, attributes or competencies required for the person in a procurement role to be successful. This gap will be covered within the Chesapeake Packaging case study in order to test both the impact of the right (or wrong), people in position and their required skills knowledge and competencies that lead on to effective procurement.

2.5.5.10.1 Competencies - SHL Psychometric Testing

Performance is behaviour - It is something that people do and is reflected in the actions that people take. Performance is not the consequence(s) or result(s) of action; it is the action itself. For any job, there are a number of major performance components, distinguishable in terms of their determinants and covariation patterns with other variables. (Bartram 2005 p1186).

Bartram was one of the psychologists who helped to develop the Saville and Holsworth (SHL) series of psychometric tests that have been used within this research. The OPQ (Occupational Personality Quotient) personality profiling and their suite of aptitude testing (Verbal, and

Numeric) has been used for this purpose, and the research will also analyse the output in terms of whether there is correlation between the OPQ profile and performance. In his literature Bartram shows a correlation between personality traits and effectiveness, however as a key part of this research, its applicability within the specific role of procurement will be tested.

2.5.6 The Transition from Traditional to Strategic Procurement

An important aspect of this research into procurement effectiveness is the transition from the original or more traditional state, to a position that is more integral and strategic within the business. This section looks at the literature on the subject of transition in order to ensure that lessons are learned and applied within the Chesapeake Packaging transformation.

Transformation in relation to procurement and supply chain is defined by Stewart (2007), as re-aligning the organisation’s operating and service delivery model with the aim of efficiently performing one’s mission. Stewart (2007), also raise a number of questions that should be answered if a procurement organisation is looking to transform e.g.

- How can the organisation structure be better aligned to meet customer needs?
- How can processes be defined to encourage employees to drive results towards meeting strategic objectives?
- What performance metrics should the organisation and each department be monitoring?
- What skills and training are necessary to ensure ongoing success?
- What technologies are critical to support future procurement needs?
- How do you attract the right talent to join the organisation?

A phased approach to transformation is promoted by Sandelands (1994), who identifies four phases for transformation from within a Lucas case-study and indicates that projects should be led by senior management and carried out by teams drawn from various parts of the company supported by in-house consultants. The phases are: Research, Evaluate, Structure and Implement. Faes et al., (2000), argued that companies that actually achieve synergies master a process called coevolving, a subtle process consisting of multi-business teams, bottom-up initiatives to synergy, “must attend” meetings among business heads, open-minded thinking on alternative collaboration paths and getting incentives right. They go on to say that it is the implementation approach that determines the initiatives success and that coordination is built step by step - “Just as Rome was not built in a day, global companies cannot expect efforts at purchasing coordination to enjoy immediate success throughout the whole company” (Faes et al., 2000 p548). They also comment that it takes considerable perseverance by the coordinators to build a workable system, especially if local autonomy is the predominant management style in the company. This is especially relevant within the Chesapeake case study, where autonomous business units are in place, resulting in a number of fiefdoms across the business.

The concept of phases of transformation is supported by Nyhan (2003), who identify three themes referred to as transformations. The first transformation is the movement away from buying goods to buying services. The second is the movement away from command and control relationships to those of partnership and the final theme is moving away from paper based procurement to electronic buying.

Ryder and Fearne (2003), identify lessons learned, especially in relation to overcoming resistance to change at their case study company Green Isle, and include: -

- Setting clear objectives
- Taking positive action to create and external interest in the project requirements
- Valuation rather than simply pricing based outsourcing agreements
- Always trying to get more than just cost reductions, to avoid inflexibility in service delivery
- Tailoring each outsourcing agreement to the specific requirements of the project
- Managing internal resistance by thinking about people impacts well in advance of internal negotiations
- Understanding and managing the risks
- Managing the outsourced service provider
- Building and developing trust, both internally, across functional departments and externally with suppliers

From this section it can be concluded that the transformation journey that any organisation undertakes will involve a number of phases of activity, and typically starts with an initial assessment, however it is also clear that marketing of success, and choice of initiatives that allow for early success are also important in order to gain general acceptance and enthusiasm for the transformation and to apply a hearts and minds approach. What has not been mentioned however is the fear that a transformation programme may engender within those subject to the change, and the types of people who are best able to take advantage of, and lead a transformation journey. These aspects may manifest themselves as barriers to successful implementation and are discussed in the next section.

2.5.6.1 Barriers

One of the reasons that procurement transformations fail may be due to the internal barriers that the transformation programme experiences. Rajajopal and Bernard (1994), state that the complex nature of sourcing strategy on a global scale spawns many barriers to its successful execution. Often great purchasing ideas fail to be translated into practice because they conflict with deeply held internal images of how purchasing systems work i.e., mental models, images that limit the purchasing practitioner to familiar ways of thinking and acting (Hult and Nichols, 1999; Senge, 1990).

During their case discussions Faes et al., (2000), suggested that the whole group must commit itself to the supplier and that nobody can be allowed to deviate from the agreed line of conduct as this would cast doubt on the existence of a group commitment in the mind of the supplier. The temptation to break this word is often present because all sorts of local deals can be arranged between the group's local customer and the supplier's local dealer. It is therefore advisable for the coordinator to establish firm commitments of his internal customers on these promises. This is a real challenge for the purchasing coordinator in cases where considerable differences in culture exist between local affiliates and with respect to loyalty to rules and guidelines (Faes et al., 2000).

Parikh and Johi (2005), in a study of a procurement transformation at Unimid Power used grounded theory to explain a positive attitude of the participants to the new procurement process and its implementation, and comments that people do not inherently resist change, rather they resist unfavourable outcomes such as loss of status, power, comfort or pay (Dent and Goldberg 1999). They go on to state that according to the E-I model, this resistance behaviour is determined by people's perception of fairness or equity in the context of possible outcomes and to generate positive perceptions processes must create win-win situations for all major participants. Johnson et al., (2007), refers to Cousins (2005), and cite the culture of the organisation as an issue that needs to be considered i.e., supply initiatives like other strategic and operational changes are constrained in part by a firm's history, resources and capabilities.

From this section it should be noted that barriers to change will be evident and must be overcome and to ignore them runs the risk of undermining the success of the programme as a whole. The overcoming of mental models (Hult and Nichols, 1999; Senge, 1990) and the consideration of individual motivations and organisation culture are all important factors that need to be considered during any transformation programme.

2.6 Literature review - Discussion

In addition to mapping and assessing the existing intellectual territory pertaining to procurement, the literature review was intended to support the answering of Objective 1, i.e., to define effective procurement and Objective 2, i.e., to develop a procurement effectiveness model. Objective 1 is supported by identifying the current thinking and influencing factors relating to the definition of effective procurement (e.g., Perceptions, Scope of activity etc.), and Objective 2 is supported by identifying and extracting information on the determinants of success for procurement effectiveness.

From the literature it can be concluded that there are many different definitions for procurement and procurement based activity, (including a difference between efficiency and effectiveness (Dumond, 1991)), and that there is a big difference between traditional procurement and procurement that is influential at the top table (Sagev and Gebauer, 2001; Lindgreen, 2009; Carr and Smelzer, 1997).

For more strategic procurement functions where it is not simply a case of lowering prices, effective procurement can have a positive impact on quality, the cost base of the business, delivery performance and working capital (Cox 1999). In a public sector setting, getting more from the money that is available is of paramount importance in order to effect outcomes (Byatt, 2002; Gershon, 2004). With organisations spending between 48 and 90% of their revenue with external providers of goods and services (e.g., Tayles and Drury, 2001; Smith et al., 2002, Carr and Pearson, 2002; Presutti, 2003; Parikh and Johi, 2005; Kulp et al., 2006, Joyce, 2006; Chan and Chin, 2007; Bonnie, et al., 2016), Even in 1999, Cox noted that it is still surprising that more organisations have not realised that focus in this area can have a significant effect on the success of the organisation as a whole (Cox 1999).

The perception of procurement is clearly still improving, although it is often seen as a low level administrative function in some organisations (Thompson, 1996). The perception is often directed by mental models (Hult, et al., 1998), that especially from the key stakeholders, could influence the scope and acceptance of any procurement initiative within an organisation. The scope of procurement is important, especially for Objective 1, as the scope of activity would directly influence the definition of success that is applied. A traditional procurement with a limited scope would therefore likely have a different definition of success than a strategic function that is integral to the success of the enterprise.

From the literature, a number of factors have emerged as important and are summarised in Figure 15 below. This model has effectively taken the individual elements identified from the review of the key themes that have emerged (Figure 7), combined with the multiple factors identified (Figure 11), and represents the provisional procurement effectiveness model, based on the literature review. This model is taken forward to the next stage where it is reviewed during a number of expert sessions in order to assess its applicability.

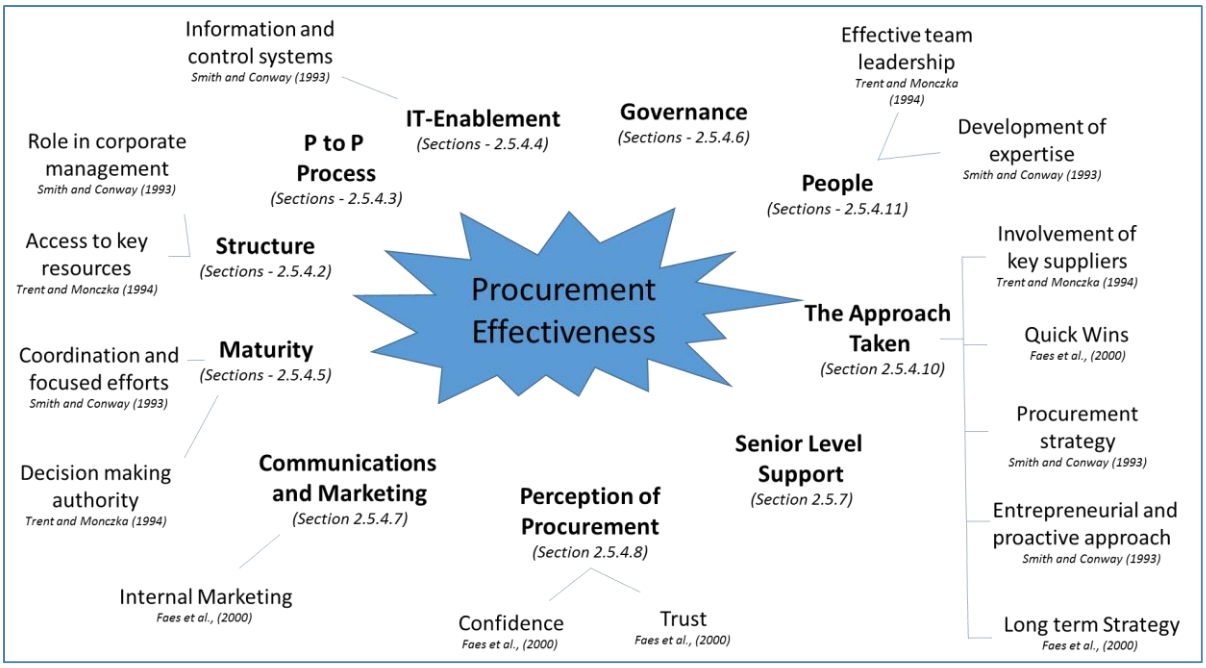

Figure 15 - Provisional Effectiveness Model

From these factors a number of questions arise. For example, a number of authors cite senior level support as important (e.g., Hult et al., 1998), however it is not clear what this actually means in practice. In the case of an effective strategy and approach to the market, a number of authors cite that the relative power-play between customer and supplier is important (e.g., Cox 1999), although there is little discussion regarding the other factors that must be in place for overall approach to be effective. In reality, it is likely that every situation will be different, and every case will have certain aspects that are more important than others.

The real question that should be asked however, is whether there are any common factors that can be applied to all situations, in order to allow a focus on the things that will really make a difference. Are there things that, if missing, mean that the chances of success are limited? For example, is the senior level support a critical factor that, if missing, would render the efforts of transformation fruitless? If this is the case, those undertaking procurement transformations should first ensure that there is sufficient support at the top table, and that if missing, initial efforts should be focused on convincing the top team to overtly support the activity. In the case of the strategy or approach, there are authors who state that more progressive sourcing programmes aim to build closer working relationships or “strategic partners” (e.g., Lamming, 1993; Womack et al., 1990; Harland, 1996), although others indicate that suppliers, especially European ones, are more likely to be opportunistic (e.g., Cox 1999). Cox also refers to “competing supply chains”, in that the aim should be to align all members of the network so that you minimise intra supply chain competition, thus allowing for supply chains to compete with supply chains. This point should however be questioned when the vendor supplies into a number of customers who are competing at the same level - the issue of allegiance and customer prioritisation would therefore need to be addressed from the perspective of the supplier company.

Many consultancy companies have their own version of a multi-step procurement process (e.g., AT Kierney's seven step process model - Clegg & Montgomery, 2005). This approach focuses on the steps involved in applying the procurement process, and does not address the competency of the people required to follow the process, or in the creating of the "compelling case" with the stakeholders. It could be argued that it is a management mechanism that is borne out of a lack of trust in the people applying the process. For example, if you were to have a person of average competence following the process then it could be that the benefits are not optimised. It could also be argued that a person with the right skills, knowledge and competency will develop a good process as they go, if the process that they are being asked to follow is weak. The obvious best solution in this case is a highly competent person following a good process.

2.7 Summary of Literature Review

Many organisations undertake a transformation of their procurement function. The reasons for this are compelling, as many studies have shown that significant advantage can be achieved (e.g., Nixon / KPMG, 2012; Aberdeen Group, 2013; Kulp et al., 2006). It can be seen from this chapter that procurement effectiveness is a wide-ranging subject and much has been written in relation to individual factors that will likely have an influence. There are not however many publications that take a holistic view of how those factors should be applied, interact and / or relate to one another. There is therefore an opportunity for this research by pulling together all the elements from the existing literature, and testing them in an applied situation in order to develop a greater understanding of the factors and how they relate to one another.

The chapter started with a review of the literature review process, and it can be seen that there has been more written on purchasing and procurement over the last few years, effectively replicating the trend within the profession. In many cases procurement has now moved away from its traditional standpoint of purchasing administration and is now starting to be seen as a competitive differentiator within many organisations. The emergence of the role of CPO, is another sign that the profession continues to gain ground in the corporate hierarchy.

Section 2.5 addresses the key themes that emerged from the review starting with the differing position with regard to terminology within the industry. It can be seen that there are many different definitions in play, which helps to contribute to a lack of clarity within the profession. This starts with the definition of the discipline itself, with terms such as purchasing, procurement, sourcing, and in the public sector “commissioning” all being used to denote the activity of buying from external suppliers to an organisation.

The perception of procurement is addressed in section 2.5.2, including the mental models (Hult and Nichols, 1999; Senge, 1990), that need to be overcome within any transformation activity, and section 2.5.3 discusses the scope of procurement activity, which is an important pre-cursor to the effectiveness question. An activity with limited scope is easy to quantify, easy to measure, and easy for non-procurement parties to understand. As scope increases, so does complexity, and therefore the task of promoting effectiveness becomes more complicated. It is however the wider scope of activity that would have the greatest impact on the organisation, so a wider definition of procurement has been adopted within this study, thereby making the assessment of the contributing factors for procurement effectiveness more challenging.

On this basis the definition of success is extremely important and is discussed in section 2.5.4. Often this definition is based upon where you sit within an organisation, as success in the eyes of the CFO, may well be different to success in the eyes of an autonomous business unit leader, who, by the very nature of the implementation of more professional procurement, will lead to a perceived loss of control and authority. Additionally, this section covers the information that is available regarding the results of procurement activity in order to support the development of a baseline of performance.

Section 2.5.5, considers the factors that have been put forward in the literature relating to things that have a material effect over effectiveness. These factors have been linked together to determine a provisional effectiveness model (Figure 15) based solely on the available literature, and is shown in the previous section.

Much of the literature focuses on the strategy and approach, followed by the people issues, whilst Government and public sector is the third most popular subject for procurement. The journey from a traditional base for procurement to a more professional and strategic procurement function is addressed in section 2.5.6, including barriers to consider.

As indicated, the area that has received that most focus in relation to procurement and procurement effectiveness is that of strategy and approach, although there is very little agreement. Some fundamental issues are still unresolved including organisational structure, the effect of IT enablement, portfolio management, supplier relationship management and relative power etc. There is however agreement that the procurement profession is undergoing a transformation, and that there are inherent issues over the perception of procurement, and therefore its overall influence on the organisation.

There are no studies identified that show the interaction between factors or their level of influence over the question of effectiveness.

Below is a summary of the main elements cited as having an effect over effectiveness, and the main authors who have contributed to the discussion. Additionally, a link to the section number within this thesis, and, where applicable, a reference to where this information has been used in the development of the provisional procurement effectiveness model (Figure 15) has also been shown

Determinant Element	Key Publications	Section / Model Reference
Definitions of procurement	Sagev & Gebauer, (2001); Lindgreen, et al., (2009); Baily & Farmer, (1986); Prida & Gutierrez, (1996); Herbig & O'Hara, (1996); Quale, (2001); Wickens & Lopez, (1987); Driedonks et al.,(2010); Monczka et al., (2006), Aberdeen Group, (2013); Carr and Smelzer (1997); Smeltzer, et al., (2003); Mathews, (2005); Talluri and Narasimhan, (2002); Driedonks et al., (2014); Chan and Chin, (2007); Gibbs, (1998); Lindgreen, (2009); Goffin et al., (2006); Ellram, (1991); Saxton, (1997); Rajagopal and Bernard, (1994); Monczka and Trent, (1991); Giunipero and Monczka, (1997)	Section 2.5.1 – Precurser to the Provisional Procurment Effectiveness Model (Figure 15)
Scope	Palmer, (1996) ;Giunipero and Monczka, (1997); Tayles & Drury, (2001); Smith David, et al., (2002); Carr & Pearson, (2002); Presutti, (2003); Parikh & Joshi, (2005); Kulp, et al., (2006); Joyce, (2006); Callender and Mathews, (2000); Treasury, (2007); Nixon / KPMG, (2012); Sagev & Gebauer, (2001); Lindgreen, et al., (2009); Carr & Smeltzer, (1997); Rajagopal and Bernard, (1993); Quayle, (2001); Talluri and Narasimhan, (2002); Lau et al., (2003); Joyce, (2006); Chan and Chin, (2007); Ho et al., (2011)	Section 2.5.3 – Precurser to the Provisional Procurment Effectiveness Model (Figure 15)
Government Procurement	Arlbjørn, et al., (2011); OGC (2010); Byatt, (2002); Gershon, (2004); NAO, (2005); Treasury, (2007); Roots, (2009)	Section 2.5.3.3
Defining Success	Deloitte, (2016); Lindgreen, et al., (2009); Beidelman, (1987); Cox, (1997); Gadd & Hakansson, (2004); Pressey, et al., (2007); Axelsson & Wynstra, (2002); Cox, (1999); Svahn, (2009); Axelsson & Easton, (1992); Achrol, (1997); Foss, (1999); Barney, (1986); Grant, (1996); Hamel & Prahalad, (1991); Seashore and Yuchtman, (1967); Ford, (1990); Katz and Kahn, (1978); Macbeth, (1994); Cavinato, (1999); Talluri and Narasimhan, (2002); Ford, et al., (2002); Hyun, (1994); Dubois and Gadde, (2000); Håkansson, (1987); McCampbell et al., (1995); Dumond, (1991); Thompson, (1996); Hult et al., (1998); Seltzer & Bass, (1990); Etgar, (1977); Schul, et al.,	Section 2.5.4 – Precurser to the Provisional Procurment Effectiveness Model (Figure 15)

	(1983); Ryder and Fearne, (2003); Kennerley, (2003); De Toni & Tonchia, (2001); Johnson et al., (2007); Thompson, (1996); Nixon / KPMG, (2012); Aberdeen Group, (2013); Kulp et al., (2006); Friedman, et al., (2001)	
Perceptions of Procurement	Kraljic, (1983); Wagner, (1993); Ferguson et al., (1995); Thompson, (1996); Gottfredson et al.,(2005); Dumond, (1996); Cox, (1997); Quale, (1998); Hult et al.,(1998); Hult and Nichols, (1999); Callender and Mathews, (2000); Faes et al.,(2000); Carr and Pearson, (2002); Mathews, (2005); Snider, (2006); Ramsey, (2008); Tassabehji and Moorhouse, (2008); Brandmeier and Rupp, (2010); Deloitte, (2016); Ferguson et al., (1995); Carter and Narasimhan, (1996); Quale, (1998); Cavinato, (1987); Ellegard, (2006).	Section 2.5.2 – Direct link to Provisional Procurement Effectiveness Model (Figure 15) under the heading of "Perception of Procurement"
Multiple Factors	Smith and Conway, (1993); Faes et al., (2000); Gottfredson et al., (2005); Trent and Monczka, (1994)	Section 2.5.5.1 – Direct link to the Provisional Procurement Effectiveness Model (Figure 15) under the headings of: "Structure", "IT Enablement", "People", "Approach" "Perceptions" "Comms and Marketing", "Maturity"
Infrastructure; Organisational Structure, P2P Process, IT	Trent and Monczka, (1994); Dumond, (1996); Fawcet and Scully, (1998); Pattersen et al., (2000); Morton et al., (2003); Gershon, (2004); Parikh and Johi, (2005); Joyce, (2006); Johnson et al., (2007); Brandmeier and Rupp, (2010); Driedonks et al., (2010); KPMG, (2012); Hult et al., (1998); Pattersen et al., (2000); Palmer, (1996); Sagev and Gebauer, (2001); Byatt, (2002); Knudsen, (2003); Kulp et al., (2006); Wei and Chen, (2008); Aberdeen Group, (2013)	Sections 2.5.5.2; 2.5.5.3; 2.5.5.4 – Direct link to the Provisional Procurement Effectiveness Model (Figure 15) under the headings of: "Structure", P to P Process", "IT Enablement"
Maturity	Barry et al., (1996); Callender and Mathews, (2000); Driedonks et al., (2010); KPMG, (2012)	Section 2.5.5.5 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under the heading of: "Maturity"
Governance	Buvik, (2002); Gershon, (2004); Kulp et al., (2006); Johnson et al., (2007); Ardent Partners, (2011); KPMG, (2012)	Section 2.5.5.6 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under the heading of: "Governance"
Communications and Marketing, including Objectives	Kraljic, (1983); Dumond, (1991); Carr and Pearson, (2002); Freeman and Cavinato, (1992); Dumond, (1996); Gibbs, (1998); Cox, (1999); Schapper et al., (2006); Svahn, (2009); Aberdeen Group, (2013); Hult and Nichols, (1999); Lindgreen,	Section 2.5.5.7 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under

	(2009); Faes et al., (2000); Freeman and Cavinato, (1992); Gibbs, (1998); Chan and Chin, (2007); Carr and Smeltzer, (1997); Lajara and Lillo, (2004); Driedonks et al., (2010); Cohen, et al., (1996). Brookes et al., (2007); Hoegl & Gemuenden, (2001), van Weele & Rozemeijer, (1996)	the heading of: "Communications and Marketing"
Senior Level Support and the case for procurement	Beidelman, (1987); Thompson, (1996); Cox, (1997); Cox, (1999); Svahn, (2009); Faes et al., (2000); Fassoula, (2006); Chan and Chin, (2007); Lindgreen, (2009); Driedonks et al., (2010); Trent & Monczka, (1994); Rajajopal and Bernard, (1994); Pattersen et al., (2000); Byatt, (2002); Gershon, (2004); Anonymous, (2005); Fassoula, (2006); Chan and Chin, (2007); Carr and Smeltzer, (1997); Lajara and Lillo, (2004); Nixon / KPMG, (2012); Driedonks et al., (2014); Englyst, et al., (2008); Holland, et al., (2000); Kirkman & Rosen, (2000)	Section 2.5.5.8 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under the heading of: "Senior Level Support"
People and Competencies	Freeman and Cavinato, (1992); Herbig and O'Hara, (1996); Cox, (1997); Fawcet and Scully, (1998); Hult and Nichols, (1999); Cox, (2001); Byatt, (2002); Gershon, (2004); Fassoula, (2006); Keller, (2006); Brookes et al.,(2007); Johnson et al.,(2007); Bartram, (2009); Driedonks et al.,(2010); Ardent Partners, (2011); Aberdeen Group, (2013); Driedonks et al.,(2014); Deloitte, (2016); Erridge and Perry, (1993); Bartram, (2005); Fawcett et al., (2008)	Section 2.5.5.10 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under the heading of: "People"
Strategy and Approach	Kraljic, (1983); Quale, (2001); Driedonks et al.,(2010); Gelderman and Semeijn, (2006); Anonymous, (2005); Dumond, (1996); Brookes and Singh, (2008); Chan et al.,(2009); Rajagopal and Bernard, (1994); Herbig and O'Hara, (1996); Kotabe, (1998); Faes et al.,(2000); Talluri and Narasimhan, (2002); Shin-Chan and Cho, (2008); Lamming et al., (1995); Gibbs, (1998); Cox, (1999); Goffin et al., (2006); Chan and Chin, (2007); Cox and Chicksand, (2007); Carr and Pearson, (2002); Mathews, (2005); Kamann & Bakker, (2004); Gelderman, (2003); Gelderman and Van Weele, (2002); Wagner and Johnson, (2004); Duboisa and Pedersen, (2002); Zolkiewski and Turnbull, (2002); Bensaou, (1999); Olsen and Ellram, (1997); Steele and Court, (1996); Lamming & Cox, (1995); Lamming, (1993); Womack, et al., (1990); Harland, (1996); Provan and Gassenheimer, (1994); Ziropli and Caputo, (2002); Johnson & Selnes, (2004); Kalwani and Narayandas, (1995); Narayandas and Rangan, (2004); Spekman, (1988); Eggert et al., (2009); Brandes, (1994); Gadde and Hakansson, (1994); Bryntse, (1996); Parmigiani, (2007); Hamel and Prahalad, (1990); Ting & Cho, (2008); Lindholm and Suomala, (2004); Svahn and Westerlund, (2009)	Section 2.5.5.9 – Direct Link to the Provisional Procurement Effectiveness Model (Figure 15) under the heading of: "The Approach Taken"
Transition from tactical to Strategic	Sandelands, (1994); Faes et al., (2000); Pattersen et al., (2000); Sagev and Gebauer, (2001); Nyhan, (2003); Ryder and Fearne, (2003); Gottfredson et al., (2005); Parikh and Johi,	Section 2.5.6 – Sits outside of the Provisional

	(2005); Snider, (2006); Stewart, (2007); Tassabehji and Moorhouse, (2008); Lindgreen, (2009); Svahn, (2009); Lamming et al., (2005); Leseure et al., (2004); Mehra and Inman, (2004); Noonan and Wallace, (2004); Stewart, (2007); Svahn and Westerlund, (2009)	Procurement Effectiveness Model

Table 11 - Summary of Literature to Theme

2.8 Knowledge Gaps and Research Questions

Much has been written about procurement, and often concentrates on an individual element or specific approaches within specific cases. In general, as measured by the increasing numbers of academic papers published since the late 80's, there is more focus on procurement and supply chain which may be a result of the activity been seen as more critical to organisations and more professional in its approach (Callender, et al., 2000).

There appears to be very little agreement over the definition of what constitutes effective procurement, which clearly also relates to a lack of clarity over the role and scope of a procurement function - for this reason, the first objective of this research is to define what effective procurement is and the scope that the procurement function should undertake. This is especially important for the Chesapeake Packaging case study, as this then forms the baseline and dimensions of the activity within the selected action research case. Objective 1, is therefore defined as: -

- **Objective 1 - To Define Effective Procurement**

It can be argued that the current literature does not sufficiently identify holistically the key and critical issues and how they interact with one another, i.e., the determinant factors that need to be addressed if an organisation is to undertake a transformation of its procurement and supply chain function. For this reason, the aim of this research is to create a Procurement Effectiveness Model, which identifies the key determinant factors that should be considered when undertaking a transformation of a procurement function. Objective 2, is therefore to create this model, although in order to achieve this the key determinant factors need to be identified, and their inter-relationships investigated. Objective 2, is therefore in 3 parts: -

- **Objective 2 - Develop a Procurement Effectiveness Model (PEM)**
    - **Objective 2a - Identify the key influencing factors and / or determinants of success for Procurement Effectiveness**
    - **Objective 2b - Investigate the inter-relationship of the identified key factors**

Objective 3, is to test the model developed in an industrial setting, which allows for a deeper review of the elements that make up the procurement effectiveness model and addresses a number of gaps in the existing literature including the role of senior management within a procurement change programme. Many authors cite the engagement of senior management as an important factor (e.g., Trent & Monczka, 1994; Rajajopal and Bernard, 1994; Thompson, 1996; Pattersen et al., 2000; Byatt, 2002; Gershon, 2004; Fassoula, 2006; Chan and Chin, 2007; Carr and Smeltzer, 1997; Lajara and Lillo, 2004), although there is virtually nothing that provides the detail of what this involvement actually is, or the role that they need to play within the wider organisation in order to ensure that the transformation is effective. This research aims to provide more detail regarding the role of senior managers, especially the CEO on the transformation activity.

Another gap within the literature is related to the specific competencies that are desirable for procurement staff. There is extensive literature on competency analysis e.g., (Bartram, 2009), although the specific case for procurement professionals has not been addressed in any detail. This research aims to build upon the existing competency based information and apply it to the specific case of procurement.

In relation to the approach of procurement, there are many authors that have taken the portfolio approach e.g., Kraljic, (1988); although it can be argued that this approach only takes the customer view of suppliers into consideration. Other authors cite power as important within relationship management (e.g., Cox, 2001), or indeed consider the supplier view of the customer as an important part of strategy development (e.g., Steele & Court, 1996). A review of the approach that procurement takes, considering methodologies such as portfolio management, relationship management, total acquisition cost etc., is considered within the application of the procurement effectiveness model within the Chesapeake Packaging case study, in order to reinforce existing literature on the subject.

Effective communication and programme governence are also addressed within the study in order to build on existing research, however it is the interaction between the element or factors that is important, and this research aims to provide a degree of insight over the interaction between factors.

Overall, it is the aim of this research to generate new knowledge in relation to a holistic approach to procurement effectiveness and as such Objective 3, is therefore defined as :-

- **To determine the effect of applying the PEM in an industrial application**

The ultimate aim of this research is to improve the effectiveness of procurement, and to help to raise the profile of procurement as a key contributor to the effective operation and ultimate success of an organisation.

3 METHODOLOGY AND RESEARCH DESIGN

3.1 Introduction

This chapter introduces the approach, methodology and the overall research design, and goes on to discuss the theoretical underpinnings of the research in terms of knowledge and the knowledge generation process. The chapter also details the specific phases of the research including; defining success, the development of the procurement effectiveness model, and the Chesapeake Packaging case study (including the baseline determination (i.e., the “As-Is” analysis), the intervention, and the post intervention assessment).

The chapter is structured to initially show some background to the ontological, epistemological and philosophical options available, followed by the final confirmation and justification of the approach taken. It is confirmed that a predominantly interpretivist position is adopted, more specifically tending towards phenomenology and that a mixed methods approach is assumed that follows the Hypothetico-deductive method (see Figure 18), originally articulated by Karl Popper but more recently described by Lee and Lings (2008). The earlier phases of the research are more qualitative (linking to the induction elements of the Hypothetico-deductive method), followed by more quantitative analysis of the latter stages of the research (linking to the deduction elements of the model). Also covered in this chapter are ethical considerations and a risk assessment.

3.2 What is knowledge and the knowledge generation process

According to Lee and Lings (2008 pg.11), “In order for something to be knowledge, it must rest upon some kind of reliable evidence.” It is the intent of this research to generate new knowledge in the area of procurement effectiveness. For this reason, there needs to be first a clarification of the philosophical standpoint that is assumed, and second, a process designed around the generation of the “reliable evidence” required to fulfil Lee and Lings’ definition of knowledge. There are a multitude of methodologies, philosophies and perspectives that may be used to perform research, often coming from diametrically opposed positions. This situation does therefore have the potential to give rise to the concept of “Incommensurability”, (often associated with Kuhn and Feyerabend (Sankey 1993)), where it is often difficult to evaluate one method from within the bounds of another, e.g., between the realists and interpretivist schools of thought, as their positions are fundamentally opposed. There appears to be no right or wrong answer, although congruence is clearly important. This position is supported by Edmondson and McManus (2007), who comment that fit is important and potentially overlooked by busy or inexperienced researchers who may fail to see the larger patterns that give rise to inconsistencies between their aims and their methods. It is therefore important that the philosophical position is clarified at the beginning of the process and according to Easterby-

Smith et al., (1999), there are at least three reasons why an understanding of these paradigms is useful:

- It can help clarify the research design
- It can help the researcher to recognise which designs will work and which will not
- Knowledge of these paradigms can help the researcher identify and create research designs that may be outside his or her past experience

3.2.1 Background - Ontology, Epistemology Axiology & Methodology

Ontology is the study of the nature of reality (Lee and Lings 2008), and involves the studies of theories of being (Smith 1998), i.e., it is a set of beliefs about what the world we are studying actually is. For example, is reality objective and independent of our perception of it, or is it constructed by those who experience it, and does it exist apart from our experience of it? Discussions concerning ontology in the social sciences are centred on two opposing positions - objectivism and subjectivism. Objectivism has the core assumption that ontological reality is an absolute and that, “social entities exist in reality external to social actors concerned with their existence.” (Saunders et al., 2009, p108.). Subjectivism, on the other hand has the core assumption that ontological reality is a function of human imagination and experiences, or a constructed interpretation, i.e., “social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence.” (Saunders et al., 2009, p 108).

Epistemology involves the study of theories of knowledge and the questions we ask about *how* we know (Smith 1998). An epistemology should follow on from ontology and is dependent in many ways on what you believe reality to be. For example, can we generate unbiased, generalizable knowledge about the world, or is this knowledge specific to a particular time and place? Epistemology is essentially about understanding what can be known and how knowledge can be observed. It is also concerned with how ontological assumptions are manifested in research (Lee and Lings 2008). For both the ontology and the epistemology there are a number of differing standpoints, although predominantly sit within two distinct camps, namely realism and interpretivism.

Lee and Lings (2008), provides a helpful table to show some of the differences: -

	Realist	**Interpretive**
What is reality?	Objectively measureable, knowable, separate from those looking at it	Subjective, interpreted by participants

What is knowledge?	Singular body of knowledge, agreed upon by scientists, generalizable	Multiple types and bodies exist, collaboratively constructed, context - specific
The status of language	Describes reality as it is, but is independent of what it describes	Actively constructs reality. And is itself part of what it signifies
What's the focus on?	Deduction, explanation, prediction, creating general laws	Induction, description, understanding, generating local understanding
General approach to research	Abstract, reductionist, hypothesis testing	Participatory, reflexive, theory-generating

Table 12 - Characteristics of realist and interpretive research (Lee and Lings 2008 p.70)

Within the realist position there are also specific schools of thought or movements that have evolved over time. For example, Positivism and Realism; the positivist standpoint is that they consider only things to exist if they are observable, and any proposition that cannot be empirically tested (i.e., verified) is not valid, although this standpoint invalidates many theories and concepts that are fundamental to modern science. Realist philosophies, including logical empiricism, share the belief in an objective world which can be observed and measured, however it accepts that there are things that are un-observable and also that there may be errors in the observation process. (Alvesson and Skoldberg, 2009, p. 15).

Rationalism vs empiricism discuss the merits of reason over observation. Descartes' position was that reason was more trustworthy than observation as our senses can be easily fooled, however Locke considered rationalism (reason) was subservient to empirical observation as a person's ability to reason was determined by their empirical experiences, since you have no capacity to reason before observation (Chapman and Routledge 2009).

Anti-realism and Pragmatism; the anti-realism position denies the existence of theoretical concepts, although pragmatism, for example, acknowledges that there is an external reality but that theoretical concepts are not valid. The pragmatist key tenet is that the meaning and truth are only defined in relation to how useful they are in action (Lee and Lings, 2009). According to Snider (2006), the common usage of the word "pragmatism" refers an attitude of practicality i.e., "doing whatever works," and the early philosopher proponents intended it as a much more rigorous and communitarian system of thought. They believed that if the meanings of ideas were based on observable and verifiable sensory experiences of the consequences, then beliefs could be fixed in a public sense to the extent that a community of enquirers could agree on the meaning of those consequences (Snider 2006).

The interpretivism standpoint also has a number of different schools of thought. Hermeneutics began in the 17th century in Germany and the work of Schleiermacher (1768-1834,) and Dilthey (1833-1911), developed hermeneutics into the study of understanding human experience, originally based around the interpretation of biblical texts, it has become the branch of knowledge that deals with interpretation and in human understanding. Later interpretations include both verbal and non-verbal communication and analysis of the explicit and implicit meaning. Shultz (1899-1959), is generally credited in developing phenomenology, which is essentially the study of human experiences and of the structures within which humans experience the world (Hammersley 2004). A further development is “existentialism”, which is concerned with the human experience of existing. Burrell and Morgan (1979), make a distinction between phenomenological and ethnomethodology based approaches and comments that both are concerned with understanding social reality but differ in terms of the way in which this reality is negotiated via interaction. For example, ethno-methodologists focus on the actor’s account of the world, whilst phenomenologists focus on the social contexts where actors create a definition of the world and the interactions that occur.

Axiology is the philosophical study of value and is in essence about the “aims” or “values” of the research. It receives a little less attention than Ontology, Epistemology and Methodology and is often associated with ethics, aesthetics or religion. In a basic sense, it is what you are trying to do, and follows on from ontology. For example, do you try to explain and predict the world, or are you only seeking to understand? (Lee and Lings 2008).

Methodology is about how you are going to do the research / the process that you will take in order to perform the research and will be discussed in more detail later in this chapter.

Lee and Lings (2009), show the relationship between the ‘ologies in a useful pictorial form (see Figure 16).

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Figure 16 - Philosophical Interactions (Lee and Lings 2008 p12)

3.3 Overall approach and philosophical underpinnings

These philosophical underpinnings are important to clarify with regard to the overall study and is a position that the author finds challenging, although the requirements for clarity at the beginning of the process is clearly a component for effective research. As an engineer by education and training, a natural position would be to adopt one of a positivist / realist, however the research requirements would, in the early phases of the research tend towards one of Interpretivist. Additionally, due to the fact that the researcher will be immersed in the case study playing an active part of the process, and that the answers lie in the human system that is at play within the organisation, it would be difficult to be removed from the process and to set out an effective research scheme at the beginning in order to test a particular hypothesis as per the positivist / realist standpoint.

However, it is acknowledged that there is a significant debate over the relative merits of one paradigm over another, with some significant disagreement between practitioners. It is not intended to address this within this thesis, rather than to simply acknowledge that it exists and to be sympathetic to the differing standpoints when approaching the research and defending the methods adopted.

The following table summarises the position with regard to ontology, epistemology and axiology in relation to this study.

Ontology	Procurement effectiveness appears to be a complicated issue and is often based on human interactions and interplay. For this reason, defining a situation where there is one truth is likely to be extremely problematic as each actor is likely to have a different perception of what that reality is based on their personal experiences and their position within the act as a whole. As an example simply defining whether a procurement initiative is successful is likely to lead to differences of opinion depending on your own standpoint and position within the organisation.
Epistemology	Epistemology relates to what we can know about reality. In this case it is believed that the particular combination of actors in relation to procurement effectiveness would result in a limited possibility to create wholly generalizable information that can be transferred without consideration of the particular circumstances that it is to be applied. It is also believed that the majority of the data gained within in the research is likely to be through participation and through induction in order to generate local understanding. This then would lead on to a more interpretive approach.
Axiology	The aim of the research from an axiological standpoint are to understand the interaction between different elements of a predominantly human systems in order to capture knowledge, generate theory and distil into a model that can be used to improve procurement functions or to increase the propensity for success for organisations undertaking and procurement transformation.

Table 13 - Summary of Approach in terms of Ontology, Epistemology and Axiology

For the reasons outlined above, it is assumed that the approach taken will be more aligned with an interpretivist standpoint and more specifically towards phenomenology, i.e., essentially the study of human experiences and of the structures within which humans experience the world (Hammersley 2004), as it is assumed that a social construct is important and that within the case study / action research, the researcher will facilitate understanding and will have a direct impact on the overall process of actor interaction.

The methodologies selected therefore need to be sympathetic to these philosophical underpinnings, and are tailored to the specific objective within each phase of research activity.

3.4 Research Design

Gummerson (2000), suggests that choosing appropriate research design and methods is guided by a number of factors including; research objectives; questions, antecedent literature and the philosophical position you take. Research design is defined as the logical sequence that connects the empirical data to a study's initial research questions and ultimately, to its conclusions (Yin 1994). Saunders et al., (2009), suggest a process that starts with determining a "Wish to do research", and follows with: -

- Formulation and clarification of the research topic
- Critically review the existing literature
- Understanding of the philosophy and approach
- Formulation of the research design
- Negotiation of access, and the addressing of ethical issues

They then suggest that the following is considered for the collection of data: -

- Sampling
- Secondary data
- Observation
- Semi-structured and in-depth interviews
- Questionnaires

Analysis of the data can then take two forms: -

- Quantitative methods
- Qualitative methods

Both forward planning, reflection and revision are part of the process. Saunders and Tosey (2013), have also created a useful diagramatic representation of the influences and their relationship within the concept of the Research Onion shown in Figure 17.

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Figure 17 - The Research Onion (Saunders and Tosey 2013)

3.4.1 Quantitative vs Qualitative methodologies

Qualitative research involves the study use and collection of a variety of source materials (e.g., case study, personal experience, introspective, life stories, Interview, observational, historic, interactional and visual texts), that describe routine and problematic moments and meanings in individuals' lives, (Lee and Lings 2008). Accordingly, qualitative researchers deploy a wide range of interconnected methods, hoping always to get a better fix on the subject matter at hand (Denzin and Lincoln, 1998). Quantitative research is defined as 'explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics)' (Aliaga and Gunderson 2000). In the same way that there are opposing positions with regard to ontological and epistemological standpoints e.g., realist vs interpretivist, there appears historically to be an equally fundamental divide between qualitative and quantitative research methods i.e., the "qualitative - quantitative divide" (Lee and Lings 2008). Bryman (1999) comments that the discussions on qualitative research by some from a quantitative standpoint has been problematic as they have been portrayed in some instances as mutually antagonistic (Lofland, 1971; Bogdan and Taylor, 1975).

Whilst there is some argument that there is a degree of alignment between the realist position and quantitative research, and the interpretivist and qualitative research, there is also the question of maturity in relation to the subject matter (highlighted by Bryman 1999). As can be seen by the literature review, the subject of procurement effectiveness, where multiple factors are considered, can be seen as nascent which would lend itself more towards a qualitative position as there is a requirement to develop rather than simply test theory (Bryman 1999), conversely, when testing effectiveness, a quantitative methodology would seem particularly suitable.

A useful summary of the differences between qualitative and quantitative approaches is summarised below: -

	Quantitative	Qualitative
Standpoints	"There's no such thing as qualitative data. Everything is either 1 or 0" - Fred Kerlinger	"All research ultimately has a qualitative grounding" - Donald Campbell
Role of research	Proving / disproving	Means to exploration of actors' interpretations
Aims	The aim is to classify features, count them and construct statistical models in an attempt to explain what is observed	The aim is a complete, detailed description
Relationship between researcher and subject	Distant / Researcher tends to remain objectively separated from the subject matter	Close / Researcher tends to become subjectively immersed in the subject matter
Researchers stance in relation to the subject	Outsider / Researcher knows clearly in advance what he/she is looking for. / Objective - seeks precise measurement & analysis of target concepts, e.g., uses surveys, questionnaires etc.	Insider / Researcher may only know roughly in advance what he/she is looking for. / Subjective - individuals' interpretation of events is important, e.g., uses participant observation, in-depth interviews etc.
Data collection	Researcher uses tools, such as questionnaires or equipment to collect numerical data	Researcher is the data gathering instrument
Research maturity	Recommended during latter phases of research projects	Recommended during earlier phases of research projects
Relationship between theory / concepts and research	Confirmation	Emergent
Research strategy	Structured / All aspects of the study are carefully designed before data is collected	Unstructured / The design emerges as the study unfolds
Scope of findings	Nomothetic	Ideographic
Image of social reality	Static and external to actor	Processual and socially constructed by actor
Nature of data	Hard, reliable / Data is in the form of numbers and statistics. / Quantitative data is more efficient, able to test hypotheses, but may miss contextual detail	Rich, deep / Data is in the form of words, pictures or objects. / Qualitative data is more 'rich', time consuming and less able to be generalized

Table 14 - Differences between Qualitative and Quantitative research

(Adapted from: - Bryman, 1999 p36; Neil, 2007; Miles & Huberman, 1994)

3.4.2 Mixed-Method Design and the Hypothetico-Deductive Method

“Mixed Methods” approaches utilise both qualitative and quantitative methods together and can support both deduction and induction based approaches. Hammersley (2008), suggests that research benefits from a mixed methods approach in terms of “triangulation” i.e., gaining different viewpoints from multiple angles allowing a richer and more accurate picture to be developed. Hammersley goes on to argue that each method can facilitate the other, for example by providing raw material for later investigations by using one or the other method. Hammersley also considers that differing methods can complement each other, i.e., when implemented effectively into the research design, one method can fill the gaps from another (Lee and Lings 2008). Another way of looking at this is through the Hypothetico-Deductive Method, detailed in Lee and Lings (2008), which adapts the scientific method that was first articulated by Karl Popper. The process starts with a research question, develops ideas and generates theory through deduction, then promotes the development of hypotheses and associated testing through an induction based process.

Aston University

Illustration removed for copyright restrictions

Figure 18 - Hypothetico-Deductive Method (Lee and Lings, 2008 p41)

Based on the literature review and preparatory research, at best, the subject of procurement effectiveness improvement in terms of a holistic approach is nascent and still developing in maturity even though the subject has been around for over 100 years. It follows that models for effectiveness have not yet achieved general acceptance and therefore still need to be developed and tested in order to achieve a level of maturity that would be suitable for a purely quantitative approach. For this reason, the early phases of the research would lend itself to the use of qualitative methods in order to explore the subject without pre-determined ideas or assumptions and to identify potential determinant factors. Once these factors have been identified, it would then be suitable to build into the process an intervention within a practical situation, with some associated quantitative measures in order to test hypothesis and relevancy. A mixed methods approach has therefore been selected, with qualitative elements of research supporting the deductive phases followed by quantitative elements supporting the inductive phases. This allows the research approach to be tailored to the research requirements at different stages of the project.

The process starts with the research question in relation to "What makes Procurement Effective?" It then develops the concept of the procurement effectiveness model through a deductive process and a search for ideas supported by the literature, past experience, stakeholder interviews and practitioner workshops. This is then followed by a "testing" phase and the determination of a process for the measurement of effectiveness and associated data collection (induction) that builds on a "As-Is" analysis in order to determine a clear benchmark for any subsequent activity. The final analysis will consider both qualitative and quantitative data in order to draw conclusions and recommendations.

3.5 A Phased Approach

There are a number of natural work-packages or phases that emerge from the research plan and are defined in Figure 19 below. These work packages were identified by taking a view of the overall research objectives and required outcomes in order to break down the research programme into manageable sub-work packages and milestones, so that the workload could be planned and that progress maintained over the duration of the programme.

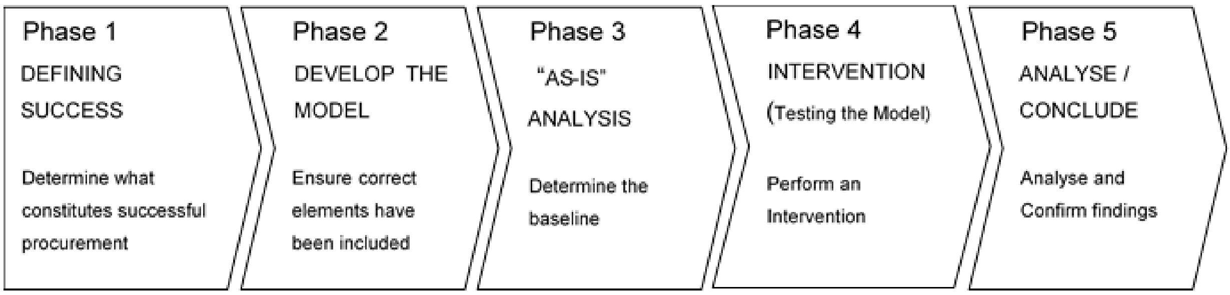


Figure 19 - A phased approach

3.5.1 Phase 1 - Defining success

Effective Procurement means different things to different people. Some describe success in financial terms (e.g., Lindgreen, 2009; Beidelman, 1987), whilst others stress the link to customer satisfaction (e.g., Cox 1999). Ryder and Fearne (2003), suggest a more balanced method of success measurement that looks at multiple factors, e.g., cost savings, purchase price variance, vendor quality performance etc.

Before any meaningful analysis could be undertaken as part of this research, it was important that success or "effectiveness" was defined so that interventions were assessed legitimately and consistently. Phase 1, was therefore designed to define success and is based on both the existing literature and interviews with key “customers” or senior stakeholders of a procurement transformation.

3.5.1.1 Epistemology

As there is no clear agreement over the definition of success or effectiveness in either the literature or in general practice, a qualitative approach allowed an exploratory investigation into the scope and definition of success, and for different view-points to be considered. This data is then summarised and a clear definition of success defined which became the yardstick for the assessment of whether the interventions within the case study proved to be successful.

3.5.1.2 Objective

The following objective for Phase 1 was therefore: -

> “To determine what constitutes success in relation to strategic sourcing and procurement transformation activity from the perspective of “Customers” of the procurement process.”

3.5.1.3 Target Audience / Subjects

The target for this activity was Chief Executives (CEO’s), and Chief Financial Officers (CFO’s), Chief Procurement Officers (CPO’s), and Managing Directors (MD’s) from organisations whose external spend is greater than £100m per year. (£100m per year spend was estimated as the figure that organisations pay more attention to procurement, although this assumption needs further analysis.)

3.5.1.4 Method

The use of semi-structured interviews (qualitative analysis), was chosen in order to glean the information from target subjects within a defined approach, but without the rigidity and inflexibility of a formal survey or fully structured interview. The semi-structured interview has a general framework approach, but is not restrictive and allows for certain aspects within the interview to be explored in more detail, or for alternative ideas to be introduced and debated. A series of open questions allowed the interviewee to develop and expand their own ideas.

A sample size of 10 was initially deemed as suitable, as access to candidates was likely to be problematic, however this was reviewed throughout the interview phase based on whether there was sufficient data available and any emerging correlation between the respondents.

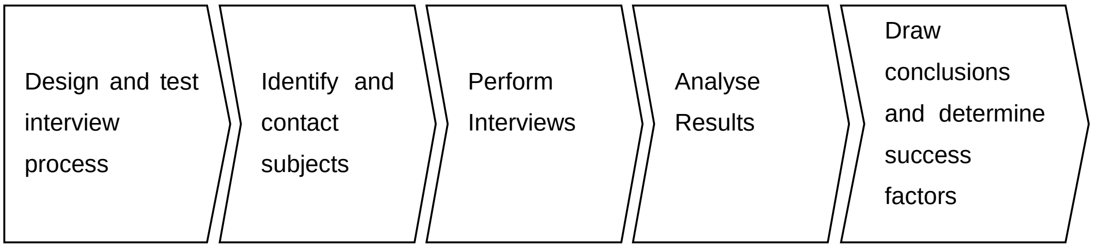


Figure 20 - Interview Process

The interviews were arranged to suit the interviewee, with session durations targeted at one hour (getting agreement for longer than this was difficult due to the nature of the target audience), typically interviews were at the interviewees preferred location. The over-riding consideration was to maximise the generation of rich data whilst minimising the inconvenience for the interviewee.

3.5.1.5 Issues considered

3.5.1.5.1 Research Technique: Semi-Structured Interviews

According to Bryman (2001) and Mason (2000), there are practical issues involving conducting interviews. For example, the development and analysis of field notes may be problematic, especially as the process may yield many pages of interview information. Data reduction, data display and both conclusion drawing and verification are potential areas of concern and require a structured approach as qualitative data based research may give rise very large amounts of data and associated analysis. It is therefore often typically applied on relatively small scale activities to enable a thorough, deep and rich investigation. In this research programme there are 11 in-depth semi-structured interviews, and the subsequent analysis uses NVIVO10 as an analysis tool in order to provide structured and systematic approach to the analysis.

The main advantages and disadvantages of semi-structured interviews are shown in Table 12 below.

Advantages	Disadvantages
• Synchronous communication of time and place • The Interviews can take advantage of social cues such as voice, intonation, body language etc. • There is no significant time delay between question and answer • The answer of the interviewee is more spontaneous, without an extended reflection,	• The interviewer could guide with his or her behaviour • The interviewer has to formulate questions as a result of the interactive nature of communication • "Double attention", which means "that you must be both listening to the informant's responses to understand what he or she is trying to get at and at the same time you must

i.e., the interviewer must concentrate much more on the questions to be asked and the answers given • The interviewer and interviewee can directly react on what the other says or does • Interviews can be recorded, of course with the permission of the interviewee • Termination of an interview is easy, compared to other interview methods. In the interaction between interviewer and interviewee enough clues can be given that the end of the interview is near. • Post interview informal comments that can lead to an emergent of a whole new area of information	be bearing in mind your needs to ensure that all your questions are liable to get answered within the fixed time at the level of depth and detail that you need." (Wengraf 2001, p.194) • Time consuming (suggests that one hour of tape takes five to six hours to transcribe) • High cost • Access and availability of subjects
(Adapted from: - Opdenakker, 2006); Wengraf, 2001; Bryman, 2001)	

Table 15 - Semi-structured interviews - advantages and disadvantages

3.5.1.5.2 Rigour - Reliability and Reproducibility (Validity)

This is an important consideration within this phase of qualitative research, and according to LeCompte et al., (1993), can be divided into two main attributes; internal and external. External validity refers to the reproducibility of the work by another researcher, and internal validity refers to the potential for variation between interviews. In this case it is only the internal validity that could potentially be of concern, as this programme has a single researcher who undertook all the interviews. The internal validity issue, was addressed through the question design, and care taken in order to ensure a consistent application of the process between interviews.

The small sample size should be acknowledged as a potential area for concern, so too is the potential for researcher bias i.e., the potential to "lead" the interviewee to cover the expected outcomes (see later section on bias). The effective design and care of execution during this phase should however help to mitigate any concerns.

3.5.1.5.3 Selection of participants

The concept of purposive sampling (Lee and Lings 2008), was used as a guide towards choosing participants who were relevant to the research question - in this case "C" level executives who are ultimately the "customers" of this activity. Theoretical sampling addresses the issue of sample size and deems it irrelevant in this type of qualitative research as you would tend towards a position of theoretical saturation where no new information comes to light from the activity. For this reason, the sample size of 11 was reviewed throughout the process to ensure that the sample was sufficient.

In this study it is likely that a degree of bias was introduced with regard to the selection of participants as this process was not random. In an ideal world the selection process would be based over a purposeful random sample, however in this case, this was not possible due to the general unwillingness of chief officer level participants to offer up their time freely for this purpose. The target list typically has some degree of connection with the author, although there are exceptions to this, and it is the comparisons of the exceptions that indicate whether there is any cause for concern over the choice of participants. Any conclusions must however be tempered with this potential for bias.

3.5.1.5.4 Interview process

This was a critical factor of the success of the first phase, and interview style and approach can make a big difference to the outcome. All interviews took place in person, and a semi-structured interview process was utilised. Fortunately, the research was undertaken by a single researcher who has significant experience in terms of competency based interview techniques used for recruitment and development, and this base level knowledge was adapted to suit the requirements of this process.

3.5.1.5.5 Researchers influence

It is important to differentiate the pure recording of observational data, from the interpretation of that data through the lens of the researchers' own knowledge and experience (Lee and Lings 2008). This was addressed through the discipline of the event. All interviews (except one) were recorded, facilitating where necessary re-coding from an individual not associated directly with the research, if this were deemed as a meaningful source of inaccuracy.

3.5.1.5.6 Bias

Bias can take the form of either interviewer or interviewee bias (Saunders, et al., 2009). Interviewer bias is where there is an attempt by the interviewer to introduce bias during the conduct of an interview or where the appearance or behaviour of the interviewer has an effect of introducing bias in the interviewee's response. Interviewee bias is where there is an attempt by the interviewee to construct an account that hides some data or when he or she presents themselves in a socially desirable role or situation (Saunders, et al., 2009). There were potentially a number of areas that researcher bias could affect the research and these need to be acknowledged, monitored and countered wherever possible. The specific opportunities for bias, and the associated countermeasures are discussed in more detail within each relevant section.

3.5.1.5.7 Respondent validation

Where possible, results and observations were passed back to the respondents in order to allow a validation of sense and meaning i.e., to ensure that respondents' views have been accurately represented.

3.5.1.5.8 Qualitative Data Management

As a number of phases within the research scheme utilise qualitative data, NVIVO10 was chosen as a suitable tool for the analysis of this information. All interviews were recorded (with one exception) and all were transposed, then coded within the NVIVO tool. Coding followed the NVIVO process and analysis within the system was performed. The output of this analysis not only supported the definition of effectiveness, but also fed into the provisional effectiveness model developed from the literature review. (see Appendix 1)

3.5.2 Phase 2 - Develop the model

This phase of the project was designed to further develop the procurement effectiveness model. At this stage the provisional model had been created based on the literature review and reference to other academic research activity.

3.5.2.1 Objective

The following objective for Phase 2 was determined as: -

> "To confirm and develop the model based on input from procurement practitioners and to further refine each category into its constituent parts."

3.5.2.2 Target Audience

The target audience was procurement experts and practitioners within three main activity sessions. The sessions were typically part of a wider procurement conference or seminar, and were managed through ISG I-Source and Strategy Insights. Participants for the external sessions were self-selecting, as they typically had a number of other seminars options open to them. In total there were 45 participants split over the three sessions.

Additionally, there were a number of internal (to Chesapeake Packaging Ltd.) procurement practitioner discussions and reviews that typically took the output of the expert sessions and reviewed its applicability to the Chesapeake Case Study activity.

3.5.2.3 Method

In comparison with Phase 1's semi-structured interviews, it was intended that a greater number of people were involved in this phase, and that the benefits of brainstorming type activity (where participants feed off one another in the generation of ideas) is achieved. For this reason, focus groups (qualitative analysis) was chosen as the main method for confirming the model.

The sessions were typically initiated by a general brainstorm in order to generate the high level categories (without the model being shown to participants) - this also had the added benefit of allowing the moderator to “weigh up” the room and to allow all participants to become comfortable with the format and their own ability to participate.

The focus group participants then categorised the factors into suitable groupings, and then moved systematically through each grouping in order to develop the second level of detail for each (i.e., what constitutes / what are the component parts of good governance as an example?).

The output from these sessions was then collated and analysed in order to verify and consolidate the factors and sub-factors. This information was then presented to the key stakeholders within Chesapeake Packaging Ltd., in order to both sense check, and validate its applicability within the case study. At this stage sub-factors were excluded if they were not relevant to the Chesapeake Packaging case study, which would also result in further limitations to the models generalisability outside of Chesapeake Packaging.

3.5.2.4 Issues to consider

Issues considered: -

- Generation / brainstorm of ideas
- Grouping of ideas into categories
- Defining of the method of measuring
- Data reduction and analysis - the process of selecting, focussing, simplifying, abstracting and transforming the data
- Group dynamics
- Stressing the issue of confidentiality
- Rules of engagement within the focus group
- Observation - ideally video recorded, although probably tape recorded due to the practicalities
- Recording of data - group activity around flip-charts / brainstorming of ideas - coding of information
- Avoiding of anecdotalism
- Writing up of activity in a timely manner
- Mental note
- Brief note

- Full field note

(Adapted from Miles and Huberman 1994 & Bryman 2001)

3.5.2.4.1 Research Techniques: Focus Groups

Focus group methodology can be traced back to Emory Bogardus, who in 1926 described group interviews in his social psychological research to develop a social distance scale (Wilkinson 2004). Broadly speaking, focus groups are 'collective conversations' which can be small or large (Kamberelis and Dimitriadis 2013), and is typically a qualitative research method applied to group discussions which are arranged to examine a specific set of topics The group is focused because it involves some kind of collective activity, for example debating a specific set of social or health issues, reflecting on common perspectives, or discussing a health or welfare campaign (Kitzinger 2005). The primary aim of a focus group is to describe and understand meanings and interpretations to gain an understanding of a specific issue from the perspective of the participants of the group (Liamputtong 2009).

A focus group is a useful research tool when the researcher does not have a depth of knowledge about the participants and can provide rich and detailed information about feelings, thoughts, understandings, perceptions and impressions of people in their own words. The focus group method is a flexible research tool because the method can be applied to elicit information from any topic, from diverse groups of people and in diverse settings (Stewart et al., 2009).

According to David Morgan (2002), a prominent focus group researcher, there are two broad types of focus groups: a structured approach which is employed more in market research; and a less rigid and structured approach which has emerged from focus group research in the social sciences. It is this less rigid approach that is adopted within this research programme.

Focus groups are a useful method to:

- Investigate complex behaviour
- Discover how different groups think and feel about a topic and why they hold
- certain opinions
- Identify changes in behaviour
- Investigate the use, effectiveness and usefulness of particular library collections
- and services
- Verify or clarify the results from surveys
- Suggest potential solutions to problems identified
- Inform decision-making, strategic planning and resource allocation

- To add a human dimension to impersonal data
- To deepen understanding and explain statistical data.

The main advantages and disadvantages of focus groups are shown in Table 13 below.

Advantages	Disadvantages
• They are useful to obtain detailed information about personal and group feelings, perceptions and opinions • They can save time and money compared to individual interviews • They can provide a broader range of information • They offer the opportunity to seek clarification • They provide useful material e.g., quotes for public relations publication and presentations	• There can be disagreements and irrelevant discussion which distract from the main focus • They can be hard to control and manage • They can to tricky to analyse • They can be difficult to encourage a range of people to participate • Some participants may find a focus group situation intimidating or off-putting; participants may feel under pressure to agree with the dominant view • They may not be representative of non-users
(Adapted from: - Liamputtong, 2009; Stewart et al., 2009, Morgan, 2002)	

Table 16 - Focus groups - advantages and disadvantages

3.5.2.5 Process: -

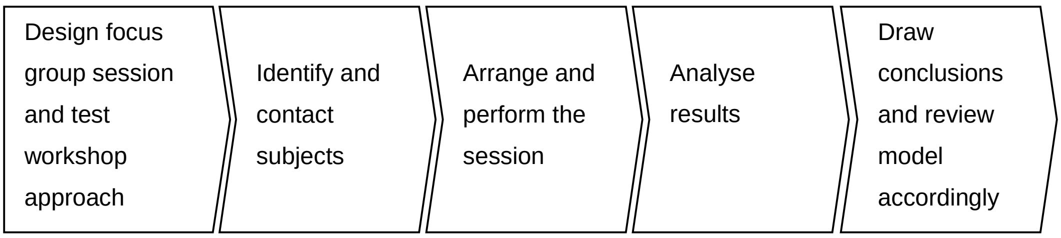


Figure 21 - Focus group process

The target audience was based around procurement experts, including both practitioners and academics.

3.5.3 Phase 3 - Perform As-Is Analysis

This phase of the project was designed to determine the current level of activity and performance from the organisation’s procurement function and to assess the extent to which each of the determinant factors is evident.

3.5.3.1 Objective

The following objective for Phase 3 was established: -

> “To determine the level of performance and activity of the procurement function within Chesapeake Packaging, and to determine the level of each of the identified determinant factors.”

3.5.3.2 Target Audience

The target audience for this phase of activity was the Chesapeake Packaging key stakeholders, including senior level executives and procurement and supply chain practitioners.

3.5.3.3 Method

The predominant method here is one of case study analysis in order to determine a benchmark of operations that is easy to measure against and reference once the intervention phase has been completed (Voss, et al., 2002). Fortunately, an independent review of the procurement function had been undertaken by a procurement based consultancy company. Their output report was used in addition to the researchers own as-is analysis in order to supplement the baseline position and to determine the level of existing professional procurement activity within the organisation.

3.5.3.4 Issues to Consider

According to Voss et al., (2002), the following steps need to be considered: -

- When to use case research
- Developing the research framework
- Choosing cases
- Developing research instruments and protocols
- Conducting field research
- Data coding
- Data analysis, hypothesis development and testing

In this case however, the objective of this case study activity is to provide a suitable baseline of activity and is based on a single specific case, rather than an analysis of cases. The framework for the research came from the procurement effectiveness model.

3.5.4 Phase 4 - Intervention

This phase of the project was designed to intervene within the organisation in order to specifically improve the determinant factors in a structured way and test the resultant performance. This is the major phase of the research and takes place over a three-year period.

3.5.4.1 Epistemology

As this process involves active participation within the host company, it lends itself to an interpretivist / phenomenologist standpoint through action research. Pawson and Tilley (1994), advocate an approach that draws on critical realism.

3.5.4.2 Objective

The following objective for Phase 4 has therefore been determined as: -

> “To perform an intervention within Chesapeake Packaging, based on the procurement effectiveness model in order to assess the effect of the intervention.”

3.5.4.3 Target Audience

The target audience was defined as the wider Chesapeake Packaging stakeholders, including senior executives, procurement practitioners, suppliers, customers and associated parties.

3.5.4.4 Method

Action research was chosen as the method during this phase of activity as the researcher is acting as the agent for change within the organisation. In this case the lead researcher is also the Chief Procurement Officer, and as such has both access and influence within the organisation. There is obviously however, a risk of researcher bias, as the researcher is integral to the process. There is also a risk that the findings are not be generalizable without further study within different organisations and environments.

In addition, a perceptions survey was developed to assess the impact of the procurement activity from the wider organisation.

3.5.4.5 Overall Intervention Process

The overall intervention activity followed the basic process as shown in Figure 22 below, and includes multiple opportunities to assess and adapt activity in order to ensure that the end result was meaningful. This constant re-evaluation in-line with the recommendations from Reason (2006) which is discussed in more detail in the following section.

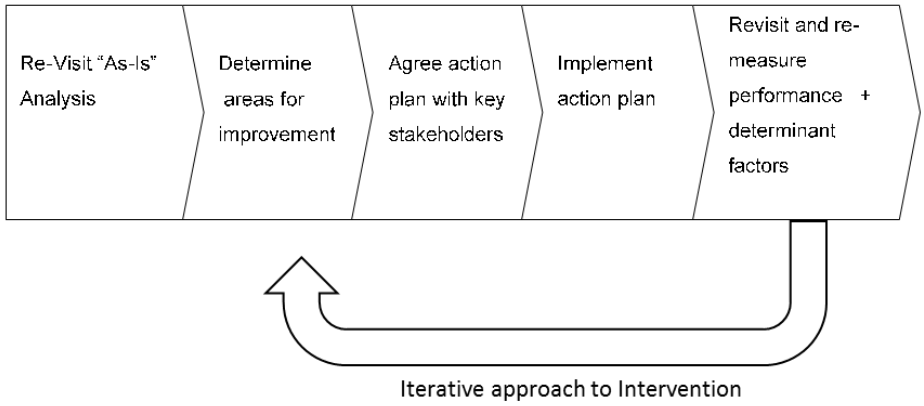


Figure 22 - Intervention Process

3.5.4.6 Issues to Consider

3.5.4.6.1 Research Technique: Case Study and Action Research

Action research can be defined as a participatory, democratic process concerned with the developing practical knowledge, that seeks to bring together action, reflection, theory and practice, (Reason & Bradbury, 2001). It is linked to the idea of developing knowledge through "making it happen" (Touboulic & Walker, 2015), and can be described in terms of four characteristic dimensions - worthwhile practical purposes, democracy and participation, many ways of knowing and emergent developmental form (Reason 2006). It takes its lead from a pragmatist standpoint, and is clearly linked to the notion of doing what works (Cassell et al., 2009). The essential purpose of action research is to address issues of concern to individuals and communities in the everyday conduct of their lives. A wider purpose is to contribute to the increased well-being - economic, political, psychological, spiritual - of humanity and to a more equitable and sustainable relationship with the wider ecology of the planet of which we are an intrinsic part (Reason & Bradbury, 2001).

Castells and Symon (2004), provide an analysis of the contexts and processes which illuminate the theoretical issues: -

- Real life context
- Removing the gap between deciders and doers
- Combining "action" and "research" as a process of change
- Interventions by the researcher to be "planned"
- Overall philosophy of pragmatics
- Taking action in problematic situations to change them
- Focus of action research is often evaluative

Rahman (2004), suggested that a deeper meaning of democracy is being sought and that an important task for action research is to help promote the empowerment of people toward their democratic participation and voice in society. This definition is obviously aimed at wider social implications, although it is clearly applicable within the corporate world, where it is often the people who are doing the job that have the most knowledge about how to improve things. Those practitioners are all too often overlooked, and their voices not properly heard, which is why the action research approach should be applicable in this environment.

The issue of quality and reliability must however be discussed. Peter Reason advocates that practical issues in action research are typically addressed through cycles of action and reflection. The outcomes of each cycle are checked against plans and intentions which result in an empirical or evidential dimension of inquiry (Reason 2006). He goes on to say that good action research emerges over time in an evolutionary and developmental process as individuals learn skills of inquiry. Emergence means that the questions may change, the relationships may change, the purpose may change and what is important may change. This means action research cannot be programmatic and cannot be defined in terms of hard and fast methods (Reason 2006).

In this research, the theory developed for procurement effectiveness will be tested and adapted through direct interventions within the host company. It is accepted that this research method is typically at odds with the traditional scientific approach and more consistent with an interpretivist or pragmatist standpoint. This point is discussed by Gummersson (2000), in his book “Qualitative methods in management research”, and is supported by a number of academics as it enables developing greater insights into contextual phenomena and allows for relevant theory building (Touboulic & Walker, 2015).

3.5.4.6.2 Research Techniques: Questionnaire

The questionnaire in this research is predominantly quantitative, although there is an element of qualitative data gathering as there is an option for free text within the survey process. The questionnaire is however only used to assess the level of awareness, perceptions and communications within the case study organisation.

The advantages and disadvantages of questionnaires are shown in Table 14 below: -

Advantages	**Disadvantages**
• Practical • Large amounts of information can be collected from a large number of people in a	• Is argued to be inadequate to understand some forms of information - i.e., changes of emotions, behaviour, feelings etc.

short period of time and in a relatively cost effective way • Can be carried out by the researcher or by any number of people with limited affect to its validity and reliability • The results of the questionnaires can usually be quickly and easily quantified by either a researcher or through the use of a software package • Can be analysed more 'scientifically' and objectively than other forms of research • When data has been quantified, it can be used to compare and contrast other research and may be used to measure change • Positivists believe that quantitative data can be used to create new theories and / or test existing hypotheses	• Phenomenologists state that quantitative research is simply an artificial creation by the researcher, as it is asking only a limited amount of information without explanation • Lacks validity • There is no way to tell how truthful a respondent is being • There is no way of telling how much thought a respondent has put in • The respondent may be forgetful or not thinking within the full context of the situation • People may read differently into each question and therefore reply based on their own interpretation of the question - i.e., what is 'good' to someone may be 'poor' to someone else, therefore there is a level of subjectivity that is not acknowledged • There is a level of researcher imposition, meaning that when developing the questionnaire, the researcher is making their own decisions and assumptions as to what is and is not important...therefore they may be missing something that is of importance • The process of coding in the case of open ended questions opens a great possibility of subjectivity by the researcher
	(Ackroyd and Hughes, 1981)

Table 17 - Questionnaires - advantages and disadvantages

Some basic recommendations were adopted e.g., keeping the questionnaire as clear and concise as possible, and participation is anonymised in order to ensure that an unbiased response was received. In addition, there was a facility for open text to clarify understanding and allow the participant to make comments that were outside the formal structure of the questionnaire process.

The development and implementation of the questionnaire followed the generic process detailed in Figure 23 below: -

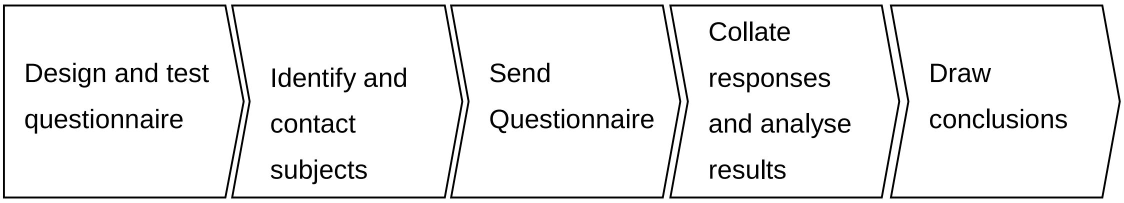


Figure 23 - Questionnaire Process

The cross company questionnaire was used towards the latter stages of the action research in order to assess the integration within the host organisation.

3.5.5 Phase 5 - Analyse and Conclude

This phase of the project was designed to analyse the information obtained and to draw conclusions as to the validity of the model as applied within the host company.

3.5.5.1 Epistemology

A realist / logical empiricist position was taken during this phase using both qualitative and quantitative methods in order to determine the strength of relationships between identified factors using a number of tools and techniques.

3.5.5.2 Objective

The following objective for Phase 5 was determined: -

> "To determine whether the developed model is an effective vehicle for the assessment of an organisations propensity for success in procurement, and whether improvements in the determinant factors is correlated to a subsequent improvement to performance."

3.5.5.3 Method

The research process generated a large amount of data, with phases 1 and 2 predominantly qualitative, and with the specific objective of verifying the model. Phases 3 and 4 provided the opportunity for more detailed quantitative analysis in order to assess the impact of the intervention activity.

Within Phase 3 there was an emphasis on determining the effect of the key factors, and then to determine any correlation between the factors and the desired outcome.

According to Lee and Lings (2008), there are two main traditions of quantitative analysis: the search for associations and the search for differences, and that one can develop indications (or inference to), causality rather than to actually prove it. This is an important point, as the research is more aligned to the generation of theory rather than confirming it, and as such causality can only be inferred and would therefore need to be the subject of further research.

The data analysis started with a thorough cleansing and reduction activity followed by a generalised (univariate) analysis and understanding of the data, the relative distributions and any anomalies were identified and explored. As many of the analysis techniques are based on the normal distribution, the data was assessed against this distribution, and skewness and kurtosis was determined in order to verify the degree to which the data could be treated as normally distributed.

Some simple correlation analysis was then performed to determine whether there is any correlation between the individual factors and the required outcomes. The data analysis process progressed to multivariate analysis and multivariate regression in order to determine a predictive model, especially for the analysis of the impact of competencies.

3.5.5.4 Issues to consider: -

Triangulation, Generalisability and Plausibility; Are the findings plausible? Is one of the first questions posed, and what are the boundary conditions applicable to this study? In each of the phases multiple methods have been used in order to consider triangulation of results, which in turn could lead to a degree of inferred generalisability.

3.5.5.5 Process

The following process was adopted: -

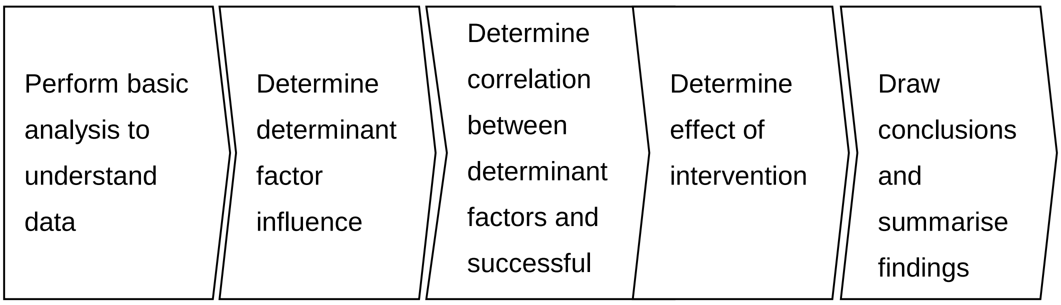


Figure 24 - Analysis process

3.5.6 Summary of Phases

The following is a summary of the approaches taken within each phase of activity: -

Phase	Activity	Predominant Approach / Method	Comments
Phase 1	***DEFINING SUCCESS*;** Determine what	Semi-Structured interviews (Qualitative)	Starting with the research question of “What makes procurement effective?” The first activity was to

	constitutes successful procurement		determine what success looks like through qualitative analysis of semi-structured interviews with key stakeholders / “customers” of the activity
Phase 2	**DEVELOP THE MODEL;** Ensure correct elements have been included	Literature Review, Qualitative / Workshop activity with practitioners	Qualitative analysis of workshop sessions
Phase 3	***“AS-IS” ANALYSIS;*** Determine the base level	Review of baseline - identification of quantitative measures	Development of a quantitative framework for measuring impact of the intervention
Phase 4	***INTERVENTION;*** Perform an Intervention	Qualitative / Action Research / Questionnaire	Full emersion in the transformation programme within Chesapeake Packaging
Phase 5	**ANALYSE / CONCLUDE;** Analyse and Confirm findings	Qualitative and Quantitative / Analysis of data / Analysis of perceptions survey	Analysis of different data sources and information

Table 18 - Phases and Approaches Summary

3.6 Overall Risk / Anticipated benefit analysis

Each phase of activity has been subject to a risk review, and actions taken in order to mitigate / eliminate apparent risks. Generally, risks were identified and classified in three main areas: -

- University
- Participant Companies
- Individual Participants

The research programme has a number of elements including face to face / semi-structured interviews, questionnaires, group activity and company specific action research. The risks associated with this approach are deemed as low and mitigation activity was planned and implemented, e.g., the use of informed consent documentation, anonymity etc.

A risk register was set up for this project, and risks, when identified, were added on an ongoing basis. An extract of this register can be found in Appendix 16.

3.6.1 University

The risk to the university has been deemed as low, due to the fact that the research was not performed within a sensitive area. There is risk however of non-compliance to the data protection act, or that the University ethical research guidelines were not followed - both were mitigated through the reviews with the supervisory team during the research, and through the strict adherence to policy.

There is also benefit to the university in terms of positive PR relating to research in this area, leading to an enhanced reputation and visibility in this very important arena.

3.6.2 Participant Company

The risk relating to the participant company is relatively low and is totally counterbalanced by the potential benefit that may occur as a result of participation in this research. Significant improvement was achieved, relating to both bottom line benefits (tangible financial) and intangible benefits e.g., improved motivation of their purchasing staff etc. The case study company did however have concerns over the provision of sensitive data and the management of such, and was be mitigated through anonymity, the implementation of robust and controlled data management techniques, and very sensitive information being eliminated from the thesis.

3.6.3 Individual Participant

Individuals were asked to sign an informed consent document, and were able to pull out of the research at any time. In addition, there was the potential for an impact (either positive or negative) for individuals who participated in the competency analysis aspect of the research. This was mitigated through the use of consent forms and through the fact that any participant could specify a requirement for confidentiality or to withdraw from the process at any stage.

3.7 Ethical Considerations

3.7.1 Informed Consent

Informed consent has been considered in this research project and is presented in Appendix 4. All participants were fully informed about the process, the purpose and research method, prior to the provision of information and formal agreement to participate. Introductory information was provided in advance of any interview, group exercise or company participation. Participants could withdraw from any part of the process, and data either rendered anonymous or destroyed.

No experiments were performed and no significant additional risks have been identified.

3.7.2 Involved parties

There are three main areas of involvement: -

- Individuals
- CEO’s / CFO’s
- Procurement Professionals
- Companies
- Chesapeake Packaging staff
- University Staff
- Supervision staff

3.7.3 Data Storage

The data storage requirements were determined by the lead researcher in consultation with the supervisory team and followed the ABS regulation and recommendations i.e.

- Interviews were recorded on audio (digital), and will be destroyed after two years post-doctoral thesis submission
- Electronic interview notes will be stored for five years (following the submission and approval of final dissertation)
- Informed consent letters will be scanned and stored for five years (following the submission and approval of final dissertation)

All data recordings comply with the relevant data protection acts.

3.7.4 Safeguards

3.7.4.1 Confidentiality

During the research, all project data was treated as confidential. Where data was passed on to other parties, a confidentiality agreement was required to be signed. All data was secure, either password protected (in the case of electronic data), or physically contained within locked storage areas.

3.7.4.2 Anonymity

Where specified, anonymity will be maintained throughout the process. Otherwise, explicit consent was sought. Where anonymity was required, best endeavours were taken to mask and hide the relevant identities in any published or publicly available information.

3.7.4.3 Research Dissemination

It is intended that data obtained through this research will be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research (i.e., conferences, peer reviewed journals, articles etc.) however previously stated confidentiality and anonymity will be maintained as per previous sections.

- Participants will be offered the opportunity to receive the results from this research in two forms: -
  - Access to the relevant sections within the project website - www.purchain.com
  - Individual correspondence directly to the participant

4 FINDINGS

4.1 Introduction

This chapter follows the phased approach as detailed within the Methodology section (Chapter 3). It begins with the results of the interviews with the key “customers” of procurement in order to scope a definition of success that is adopted throughout the remainder of the study (Phase 1). It then describes the further development of the procurement effectiveness model, by taking the input from the interviews and expert sessions and building upon the initial model identified through the literature review (Phase 2). The chapter concludes with the findings from the application of the enhanced procurement effectiveness model within the Chesapeake Packaging case study (Phases 3 and 4). Analysis and Conclusions (Phase 5) are also covered in this section.

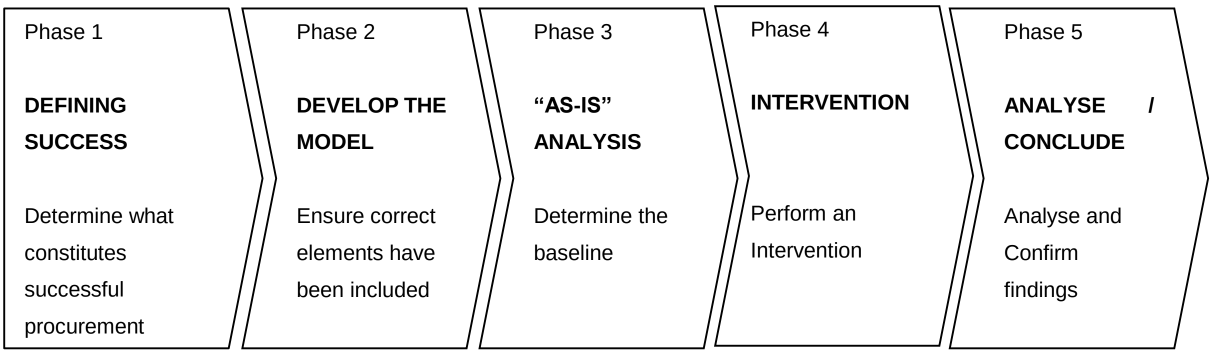


Figure 25 - Chapter structure following a phased approach

The main research components in relation to the phases of activity, and research objectives are detailed within the Table 16 below: -

Phase	Key research component	Output	Comments / Link to Research Questions
Phase 1 - Defining Success	Interviews with key “customers” or commissioners of procurement services. Interviews with 11 senior executives	- Interview Transcripts	This phase directly supports research Objective 1 (i.e., to define effective procurement). It also supports Objective 2 (i.e., to develop a Procurement Effectiveness Model).
Phase 2 - Develop the Model	Focus group / expert sessions - (iSource Procurement Workshop -14 people - Strategy Insights Workshop - 28 people within 2 sessions).	- Brainstorm and Discussion notes	This phase directly supports research Objective 2 (i.e., to develop a Procurement Effectiveness Model) and 2a (i.e., to identify the key influencing factors and / or determinants of success for procurement effectiveness. It will partially answer 2b (i.e., Investigate the inter-relationship of the identified key factors).

Phase 3 - AS-IS analysis	- Chesapeake Packaging case study - "Consultancy Company" analysis report - 90-day initial assessment	- ESG Presentation	This activity supports Objective 3 (i.e., To determine the effect of applying the PEM in an industrial application) and provides the baseline for the effects of the intervention to be measured against.
Phase 4(a) - Intervention (Compelling Case)	- Executive Steering Group interviews / Discussions	- ESG notes and presentations	This activity supports Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) and assesses the "compelling case" element of the model through formal management meetings and Informal discussions.
Phase 4(b) - Intervention (Competency)	- Competency based People assessment and Development Programme	- OPQ Profile - SHL verbal and numeric assessment - Competency assessment - Appraisal information	This activity supports Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) and assesses the "People and Competency" element of the model through a people assessment and development programme covering 25 people over a 3-year period.
Phase 4(c) - Intervention (Strategy and Approach)	- Assessment and development of strategies	- Procurement Strategy documents	This activity supports Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) and assesses the "Approach" element of the model through a critical assessment of the procurement strategies developed by the Chesapeake Packaging category managers.
Phase 4(d) - Intervention (Comms. and Marketing)	- Development of Internal communications strategy - Internal Survey	- Newsletter - Survey Results	This activity supports Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) and assesses the "Communications and Marketing" element of the model.
Phase 4(e) - Intervention (Governance)	- Development of "The White-Book" Programme Governance tool	- White-book Governance Programme	This activity supports Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) and assesses the "Governance" element of the model.
Phase 4 - (overall)	- Analysis of the results from the White-Book Governance tool	- Results from the white-book programme	This activity supports Objective 2b (i.e., Investigate the inter-relationship of the identified key factors) and Objective 3 (i.e., to determine the effect of applying the PEM in an industrial application) from a perspective of the total impact of applying the model including: - • Savings information from the 3-year programme • Individual and group performance information

Table 19 - Research Components to Activity Phases

4.2 Phase 1 - Defining Success

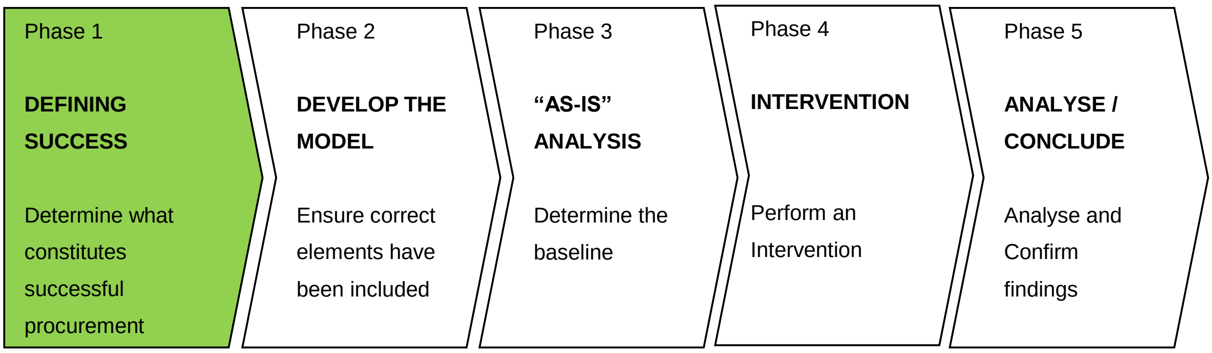


Figure 26 - Phase 1 (Defining Success)

4.2.1 Introduction

The aim of this phase is to determine what constitutes successful procurement in the eyes of "customers" or "commissioners" of procurement functions, and those that would be the initiator of any procurement transformation activity (i.e., the key decision makers within organisations, typically Chairman, President CEO, CFO, CPO and MD etc.). Procurement has a number of interpretations that range from the traditional (Sagev and Gebauer, 2001; Lindgreen, 2009; Prida and Gutierrez, 1996), through to strategic and business critical (e.g., Carr and Smelzer, 1997; Mathews, 2005; Talluri and Narasimhan, 2004), and the interviews will therefore serve to provide an update on the current perceptions of professional procurement.

4.2.2 Target Subjects

Eleven subjects were interviewed using a semi-structured interview technique. The recommendations from Bryman (2001), and Mason (2000), were considered resulting in all but one of the interviews being recorded. Special attention was made to field note taking, data reduction, data display and both conclusion drawing and verification resulting in a structured approach being adopted.

Potential Interviewees were approached, initially from the existing network of the lead researcher, although this was supplemented through secondary recommendations and introductions made from the existing network. In addition, a number of potential subjects were approached at various procurement conferences held during early 2011. Of the 11 interviewed, one had come from a personal contact, four were from Procurement Conferences, three were from Chesapeake Packaging and three were from other work-based connections.

Of the 11, two had operated at Chairman / CEO level, three who had operated at CEO / MD level, two divisional presidents, two CPO's and two CFO's. Of these, 45% had a finance and accounting background, and 45% had an engineering element to their educational background. There were 64% of the interviewees who had some direct experience or involvement in procurement either currently or within previous roles. It should be noted however that the senior executives who are willing to give their time for this type of interview are likely to be the ones that already have a good awareness of what procurement can offer them. A degree of bias should therefore be considered, and a more structured analysis from a wider sample of senior executives would be sensible as a future research opportunity.

4.2.3 Interview Format and standard questions

Following a semi-structured interview process meant that there was a framework of topic areas, along with the flexibility of being able to tailor the interview to the participant and to gauge and adapt the process in real time (Bryman 2001). A brief overview of the research was provided at the beginning of the interview, or during the interviewee acquisition phase, and more detail was provided at the end, so that the research information did not influence the participant's responses. The framework questions can be found in Appendix 3.

All participants were invited to provide a brief résumé of their career and their experience of procurement. They then typically went on to discuss their views of what constituted successful procurement and what the key factors for success were, more specifically relating to: -

- The key characteristics of a successful programme
- The involvement of key stakeholders
- The key characteristics of the types of people who are successful
- The strategy or approach that should be taken
- Desirable communication processes
- The role of effective governance

4.2.4 Limitations of the interview process

Care was taken to ensure that limitations of the interview process were minimised, including the issue of “double attention", i.e., the issue of both listening to the interviewee's responses, understand what he or she is trying to get at and, at the same time ensuring that all questions are covered (Wengraf, 2001; Opdenakker, 2006; Bryman, 2001).

4.2.5 Analysis and observations from stakeholder interviews

The primary aim of the stakeholder interviews was to support research Objective 1, i.e., to define effective procurement, although secondary to this, it was envisaged that the interviewees may also provide an insight into the key factors important for procurement effectiveness and thus support research Objective 2, i.e., to develop a procurement effectiveness model.

The interviews were transcribed and analysed within NVIVO10. Classifications emerged that were coded as nodes and are summarised in Table 17 below: -

Category	Sources	References
Background of Stakeholders	9	20
Approach	10	54
Awareness and perception of Procurement	8	23
Benefits	1	5
Change Process	1	1
Comms and Marketing	9	26
Compelling Case	9	38
Credibility	2	4
Definition of Success	7	20
Example Procurement Transformations	6	11
Expectation Management	1	4
Governance	9	27
Measures	4	18
People	10	35
Role of Consultants	1	1
Role of Senior Management	7	19
Stakeholder Engagement	3	4
Structure	1	2
The Role of Procurement	4	8

Table 20 - NVIVO Interview Analysis

At the beginning of each interview, an ice-breaker question was used to allow the interviewees to be comfortable with the process and to focus their mind on the subject area of procurement. This question was an open question relating to their own background and their experience of professional procurement. There was initially no other expectation from the question than to start the interview process however, the responses were revealing and very relevant, and are discussed in the next section.

4.2.5.1 Background of the stakeholders / previous experience of procurement

There was a variety of backgrounds and experiences within the interviewees, and their previous experience of procurement appeared to be a determinant of how they currently saw, and therefore supported the role of procurement. The more senior stakeholders, operating at CEO / Chairman level who had previously had good experiences of procurement, would use professional procurement as a catalyst for change early in the process (e.g., where they became involved in new enterprises - (Interview 1)). The senior stakeholders who did not have the same positive experience would often not focus on procurement until later on in the process, and improvements to procurement would be left until other areas of the business had first been addressed. This, as an example is shown clearly within interview 1 (very supportive) and interview 9 (not supportive) - both subjects were operating at CEO level, however they had different experience of procurement which affected their level of support.

A summary of the interviewees in terms of experience of procurement and their level of support / engagement is shown in Table 18.

Interviewee	Experience of Procurement	Level of Support / engagement
1	Good - Has had positive experiences of professional procurement	Good - Progressively more supportive and engaged. Proactive to implement professional procurement
2	Currently in CPO role - Finance background	Good level of support although previously mixed views of procurement
3	Procurement Background	Discounted (as the subject is currently a procurement practitioner, their views have been discounted in this analysis as they are now viewing procurement as an external stakeholder)
4	Good - Has had positive experiences of professional procurement	Good - Looks to bring in professional procurement where required
5	Procurement Background	Discounted (as the subject is currently a procurement practitioner, their views have been discounted in this analysis as they are now viewing procurement as an external stakeholder)
6	Limited - Has not had good experiences of professional procurement	Low / passive - Support programme where directed
7	Good - Has had positive experiences of professional procurement	Good - Looks to bring in professional procurement were required
8	Good - Has had positive experiences of professional procurement	Good - Looks to bring in professional procurement were required
9	Limited - Has not had good experiences of professional procurement	Low / passive - Support programme where directed
10	Limited - Has not had good experiences of professional procurement	Medium - Growing support following good experiences
11	Good - Has had positive experiences of professional procurement	Good - Looks to bring in professional Procurement were required

Table 21 - Interviewee experience of procurement vs level of support

It can be seen that there is a mix of perceptions and associated levels of support / pro-activeness when it comes to initiating a procurement transformation. In addition to the comparisons between interview 1 and 9, this was also evident in interviews 4, 7 and 8 (positive experience and supportive), compared with interviews 6 and 10 where they had negative experiences, and were unsupportive). In all cases there appeared to be a journey of enlightenment once they had been involved with professional procurement (rather than the more traditional forms of procurement), and their level of support and motivation to support would increase. Although anecdotal and from a small sample size, these findings lead on to the first observation, which was taken forward into later stages of the research in order to further test the assertion.

Observation 1 - The background and experience of key stakeholders could have a bearing on how they actively support procurement and their expectations of the role of procurement. (i.e., If a subject has had previous experience of successful strategic sourcing then they are more likely to actively support a transformation programme).

As previously stated, this observation is typified by interview Subject 1, where he spoke about his experience in relation to a procurement journey, and detailed a growing awareness of what a professional procurement function could do for him. He commented that his initial perception was one of awareness but no real motivation to push the programme, e.g., “Perhaps if we had been squeezed on profit I would have pushed (for professional procurement) in fact procurement was one guy who worked for us and I didn't really support the function.” Subject 1 was then asked to join the board of a new start-up procurement services company where he was able to see first-hand the benefits of professional procurement. The next company that this interviewee became involved in then benefitted from this experience e.g., “I pushed it a lot more and I was much more interested in the activity and much more supportive”. Subject 1 then had the chance to push further within a larger company. “I have evolved from pull them (suppliers) in and yell at them as loud as you can and hope you get a good deal, then forget about it because you've got to get onto other things, to where I am now which I think is more effective - It's definitely evolved from where I was say 25 years ago” (Interview 1).

Subject 10 was less supportive and had a mixed experience - “Historically for about 10-12 years, it was always a bit of an add-on to somebody's job, ….. it's fair to say that we have had mixed success at best, it was mostly trying to beat up on them (suppliers) as much as possible (to get the best deal)” (Interview 10). Subject 10 was however becoming more supportive, having had more recent examples of benefitting from professional procurement.

The different levels of experience of procurement, and associated support offered from the stakeholders can be seen as an important observation (even if the information was obtained fortuitously from a question originally designed to be an ice-breaker). The key stakeholder definition (or expectation) of success was different depending on their own experience and perception of procurement. The reason for initiating a procurement transformation, and / or supporting the existing procurement function (i.e., the compelling case) along with perceptions and role expectations are discussed in the next three sections as, it appears that these factors are influential and need to be addressed prior to determining any definition of success that would be acceptable to key stakeholders.

4.2.5.2 Compelling case

The compelling case is the reason why a procurement initiative should be seen as important within an organisation (or not) and is therefore a precursor to defining the role and scope of procurement, and as previously discussed needs to be clarified before a definition of success is determined.

There was quite a lot of discussions over savings as the reason for implementing a procurement programme. Much of the comments from the stakeholder interviews supports this, with all interviewees speaking about the need for savings delivery from the procurement function. For example, the requirement that prompted a review of the procurement function from Subject 1 was a subjective assessment of the existing activity being below expectations, and as such was “*leaving money on the table*”. In his private equity world, the objective is to increase enterprise value and to sell the business on after a period of time. Procurement can influence profitability as well as generating cash, both of which will increase the enterprise value of the business. Interviewee 1 therefore clearly saw a link between procurement and enterprise value which prompted him to act.

For the pharmaceutical industry participants, the compelling case was less clearly articulated, and perhaps reflects a lack of insight from Subject 2 and Subject 3 into the fundamental shift within their industry (i.e., the transition of the pharmaceutical industry into a more competitive environment). Both subjects 2 and 3 initially spoke about risk management, however did eventually get on to the requirements for savings. They suggested that it was only when the industry and the company started to realise that there was a big underutilised lever in procurement, did their function begin to receive recognition. They go on to say that “It’s the realisation by the business that when you spend as much as we do externally, and you're not leveraging what amounts to the best part of $10 billion, then this needs to be addressed, ‘cos the alternative is effectively just a headcount discussion.” (Interview 2). This is discussed in more detail in section 4.2.5.4 – the role of procurement.

Subject 10 details where procurement simply was not considered until late on in the process, e.g., “the group had grown quite substantially through numerous acquisitions over a period of 10-15 years from what was 4-5 sites to a business that is 40 odd sites, probably the last thing on the list was purchasing to sort out” (Interview 10). They went on to state that it was only when the company realised that they were not buying as well as their peers, who were much smaller in size and scale, that the decision was made to professionalise purchasing.

For the aerospace company's procurement transformation detailed within Interview 6, the requirements were different for the business unit as compared to the group as a whole, leading to a lack of support for the initiative from within the division. This would suggest that there needs to be more than simply the CEO of the organisation actively supporting the programme. This is an example of where there was a lack of engagement due to the programme not being relevant to a particular business unit e.g., "this business, to be quite frank, did not embrace the (procurement) initiative to begin with.... this business sources mainly silicone rubbers and fabrics, and it didn't really naturally fit into what the strategic sourcing function was set up to do" (Interview 6).

In addition to a lack of relevant compelling case, Subject 6 highlighted the fact that there were competing calls on priority which resulted in the business unit making different choices than those required by the leader of the central procurement function. This prioritisation activity often takes place in organisations and links back to the framework that has typically been established by the CEO. In this example, in the eyes of the business unit, the priority of integrating businesses was stronger than the demands of supporting the procurement initiative. It would be interesting to assess the level of support for such an initiative if the overall viability of the divisional business was in question. Interestingly the level of sanction available to the procurement function could, under these circumstances be tested if this priority call was escalated to the CEO - the result of which would be a clear message to the business either to support the initiative, or that non-support is tolerated! This leads on to Observation 2 i.e.: -

Observation 2 - The compelling case needs to be real for the stakeholders within the business and needs to be effectively articulated throughout the enterprise.

It can therefore be concluded that it is not just a case of procurements ability to deliver on cost reductions, or that an individual (such as the CEO) can generate a sufficient compelling case for the procurement initiative to be supported. The compelling case must therefore be real and relevant for the stakeholders to fully support the programme and that this message needs to be promulgated to all parties who can influence, either positively or negatively, the transformation programme. In addition, there will always be competing requirements on resources, and it is often the call on these priorities that dictates the level of support.

4.2.5.3 The Perception of Procurement

There was a range of viewpoints and perceptions regarding procurement, ranging from a non-strategic, traditional, tactical function, to one that is truly strategic and fundamental to the success of the enterprise. This position mirrors the differing positions cited within the literature. A summary of the perception of procurement from the interviews is shown in Table 19.

Interviewee	Perception of Procurement
1	Good - Strategic - Cost Reduction Focused - Sees the role improving, becoming more professional and as a source for improved enterprise value. Acknowledges that many organisations see procurement as traditional. Uses procurement as part of transformation.
2	Good - Currently in CPO role - Business Critical and Risk Management - previously a mixed view of procurement.
3	Procurement Background - Sees procurement as primarily managing risk.
4	Good - Cost Reduction Focused - Has had positive experiences of professional procurement. Acknowledges that many organisations see procurement as traditional - profession struggles attracting the best calibre people.
5	Procurement Background - Looking for procurement to become more strategic within his organisation.
6	Limited - Poor perception of procurement - Seen as tactical, and not aligned with operating business objectives.
7	Good - Cost Reduction Focused - Has had positive experiences of professional procurement. Acknowledges that many organisations see procurement as traditional.
8	Good - Cost Reduction Focused - Recognises that there are many organisations who do not yet see procurement as strategic and business critical.
9	Limited - Sees procurement as low-level administrative function – tactical.
10	Limited - Traditional viewpoint of procurement - Non-critical and not strategic.
11	Good - Sees procurement as strategic - Has had positive experiences of professional procurement although acknowledges that many organisations see procurement as traditional.

Table 22 - Interviewee perception of procurement

It can be seen that the perception of procurement is still be evolving with three of 11 interviewees still seeing procurement as tactical. The interviewees who see procurement as more strategic, also acknowledge that the general perception is still one of “poor relation” and that it is still not commonplace to have procurement represented at the top table. This leads on to Observation 3 i.e.: -

> Observation 3 - The perception of procurement is still one of poor relation to the other functions of the business and perceived as non-critical, although this is changing where people have good experience of procurement and strategic sourcing transformations.

Subject 4 links the perception of procurement, to its ability to attract the best talent e.g., “I think that procurement is not seen as a particularly sexy area of the business, if you are a smart commercial guy you are going to go into sales" (Interview 4). This position directly supports the points raised by Rupp (2010) in relation to the attractiveness of the profession.

It can be argued that the experience of the key stakeholders is likely to affect their perception and therefore their expectation of what the procurement function can do for their organisation. These factors are clearly influential over the definition of success that can be applied and a degree of complexity is emerging that needs to be explored prior to being in a position to define what effective procurement is. Stakeholder background, experience and perception is likely to influence the possible start point for procurement within any transformation, and as such would likely impact the role and scope of procurement that would be acceptable. This is therefore discussed further in the next section.

4.2.5.4 The Role of Procurement

In essence, the role of procurement is to manage the "buy-side" of the business, although it is clear from the previous discussion that the perception of the role from the key stakeholders is important as it could influence the scope, acceptance and support given to the function.

A major part of the role definition that emerged from within the interviews was related to cost reduction and the delivery of savings, although the method of achieving cost reductions ranged from the "provider of information" to the hands on delivery of benefits, e.g., "The purchasing department's role was supplying me with information, to validate it and do an initial analysis, I would then arrange meetings with key suppliers and ask what can they do on price?" (Interview 9), and "(Procurement) needs to save you money, and probably quite a lot of money" (Interview 7).

As previously mentioned, risk and reputation management figured highly in the pharmaceutical industry based interviewees e.g., "I won't get fired for missing my savings target, but I will get fired if a failure in the supply chain causes a significant reputational issue" (Interview 2). Subject 2 and Subject 3 both talk about aligning to the business models, e.g., "generally the business in pharmaceuticals is not a cost based model, so within R&D it's making the right product and moving it with speed - it's a sales base model because we have very high margins by the time it's in commercial" (Interview 3). It could be argued however that the pharmaceutical industry is now facing a potential major change in its business model, and the traditional norm of high margin with long term patent coverage is under threat. In this regard the traditional pharmaceutical players are having to reconsider their cost base in order to be more competitive in the marketplace. This issue, should re-inforce the "compelling case" for procurement as it can facilitate an increase in competitiveness by reducing the cost base (Lindgreen, et al., 2009). In this regard, the positions taken by Subject 2 and Subject 3 should be challenged in relation to whether their approach has sufficiently matured in conjunction with the evolution of their business. It should be noted that neither is now in their position, and the company has recruited a more aggressive CPO in order to drive change. It was interesting to note that their initial, seemingly well-rehearsed / PR based answers related to risk and reputation management although further within the interview process it was clear that they were also feeling pressure to deliver on cost reductions.

Subject 5 spoke about first gaining control, and then delivery of savings, e.g., “twenty-five years ago, it was mostly about getting the buyer under control…once you have mastered that you then start to master the savings formula, and all of a sudden you're a savings generating organisation” (Interview 5). Subject 5 did however have an overly positive spin on his own activity, and subsequent discussions with stakeholders within his organisation contradicted some of his experiences. Subject 5 has subsequently left his position as there was a degree of frustration in relation to his senior management not buying in to what he was proposing. This raises the question as to whether his compelling case was sufficiently robust, or effectively communicated.

Within the Aerospace organisation, savings performance was seen as key, e.g., “When I picked up the VP role then I was a recipient of those strategies and there were some good things that had gone on, some costs had been reduced in a number of areas.” (Interview 7). This position is also supported by Subject 10 from a consumer goods perspective - “Well, in some ways I think we did manage to get some low ticket prices, purely because we were mixing and matching it so much” (Interview 10). Subject 9 also clearly supports the savings paradigm, e.g., “There is nothing that engages people like savings!” (interview 9).

The majority of discussions with the non-procurement based key stakeholders were related to the delivery of savings however, it was only the procurement based stakeholders who pushed the more strategic nature of the role. This is interesting and perhaps links back to the mental models discussion earlier in the thesis (Hult, et al., 1999)

As detailed by Subject 8, a requirement for savings can be the driver or motivator for the initiation of a procurement transformation. Other factors could however provide a level of dis-satisfaction, for example poor quality or delivery performance from the supplier (interview 8). A parallel can be drawn with Herzberg's two-factor theory (Herzberg 1987), in relation to “motivators” and “hygiene” factors where savings are aligned to being the motivator, but other factors, if absent could cause a degree of dis-satisfaction and are therefore more akin to Hertzberg’s hygiene factors.

A much more strategic role for procurement was indicated by Subject 4, i.e., “first of all purchasing has to take a realistic assessment of its role in the organisation and more importantly has to get the other functions to recognise what purchasing's contribution is. I think if you can get to some sort of idea of who is responsible for what and how these interfaces work, then you can start to do things that really do transform the business instead of just move your material margin around a bit.” (Interview 4). This is a salient comment as it links the role definition to the compelling case, and the communication process to the positioning of procurement as a catalyst for change and is discussed later in the thesis.

Subject 1 sums the discussion on the role - “In the end I would like to think you are getting the best price for what you buy and that you truly know the market. Your people know the marketplace and can anticipate what might happen and where it's going.” (Interview 1). It is however also clear that the role and scope of procurement is still being influenced by the mental models (Hult et al., 1999; Senge 1990), that drive perception. These mental models, especially in regard to short term tactical savings, have to be overcome in order to “earn the right” to operate at a more strategic level within the business, and to fully contribute to the efficient operation of the enterprise.

4.2.5.5 Defining success

From the earlier sections in this chapter, it is suggested that before achieving a valid definition of effective procurement, the background and perceptions of the key stakeholders, and the definition of the role (including the scope of activity) need to be determined. Additionally, from the section on the compelling case, it was clear that the reason for supporting a procurement initiative must be related to the wider business objectives. If the business primarily requires savings from procurement then this should become the primary objective, however it may not always be the case.

For Subject 1 and Subject 4, in the case of private equity funded businesses, the requirement is to increase the value of the enterprise - a requirement that is fulfilled by the procurement function delivering savings. In the aerospace based interviews, there was a real need to increase competitiveness, and procurements role was therefore once again to deliver on savings in order to lower costs within the business (both direct and indirect), (Interview 7, Interview 6, Interview 11). From the interviews therefore, it could be concluded that savings delivery is the primary objective for the majority of procurement departments, although on further inspection the comments from Subject 2 and Subject 3 may be more reliable, i.e., that the primary objective of the procurement department should be directly related to the needs of the business (interview 2). In pharmaceuticals, it was about risk and reputation management, (even though there was an increasing requirement for savings), although in all other examples the needs of the business (as defined by the stakeholders) just happened to be savings.

It should therefore be concluded that the role and key objectives (and therefore the definition of success) of the procurement function is situation specific and should be based on a full analysis of the business requirements (although in many cases this will be cost reduction focused). This alignment to business objectives is supported by a number of academics (including Cox, 1997; Gadde and Hakansson, 2004; Pressey et al., 2007; Axelsson and Wynstra, 2002), who all support the comments that procurement function should be more critical to the business, which infers that to be effective the business requirement should be at the heart of the procurement activity, leading on to Observation 4: -

> Observation 4 - role and key objectives of procurement should be based on an analysis of the business need, although in the majority of cases, this business need is for savings. Aligning the objectives of procurement to the requirements of the business is an essential factor e.g., risk and reputation management is a key requirement within industries such as Pharmaceuticals.

Success measures must therefore be determined based on the scope, role and objectives of procurement, which in turn is influenced by the background, experience and “mental models” (Hult, et al., 1998), of the key stakeholder community. Savings are an important aspect and a tangible measure of success for a procurement function, however, from the interviews it was clear that there were softer aspects that were also deemed as important in the overall perception of what constitutes good and therefore effective procurement.

The first of these relate to the people in procurement and is discussed in the next section.

4.2.5.6 People and Competencies

In all of the interviews, people were deemed as an important factor in the success of procurement. In some cases, there was a recognition that failures in the past were due to not having the right people in position, e.g., “I think the quality of people that we have had in the roles haven't been good enough - we didn't give it the right focus, we didn't give it the exposure, therefore people who were in their roles felt quite isolated” (Interview 10). This may be due to the profession not attracting the best candidates, e.g., - “I think the other big snag is that procurement is not seen as a particularly sexy area of the business, if you are a smart commercial guy you are going to go into sales, that's where you get the adrenaline buzz”

(Interview 4). This aligns directly with Snider (2006), who comments on the lack of status of the procurement function.

The credibility through knowledge theme is reinforced as a requirement from Subject 1, i.e., “you want your people know that market and understand it and can anticipate what might happen and where it's going.” (Interview 1). Credibility is discussed further in the next section.

4.2.5.7 Credibility

From the interviews it was clear that credibility was an important factor and that there were a number of issues that would either support or undermine the level of credibility for the procurement function.

Subjects 1, 2, and 3 spoke explicitly about credibility, however all of the interviewees raised the issue in some form. It could be argued that the building of credibility should be seen as an over-arching requirement that, if absent, would result in a lack of buy-in, lack of support and in some cases active blocking of the procurement programme. From the discussions, it was clear that if a procurement practitioner was not seen as credible, then they were not supported, leading to difficulties in delivering. People skills, knowledge and competency, aligned with good communications, marketing and governance were all identified as key for building credibility, leading to Observation 5: -

> Observation 5 - Credibility is key - Procurement people first need to build up credibility. skills, knowledge and competency as well as good governance are antecedents to credibility.

There is also a link to other aspects that potentially either undermine credibility or enhance it, and language was cited as one such factor. Language that supports the business objectives is more readily accepted than language specific to procurement. Only one of the interviewees did not support the observation that procurement specific language could be a blocker to effective communication and thus credibility.

From a number of interviews, the use of consultants was cited as reducing the level of credibility, and is discussed in the next section.

4.2.5.8 The Use of Consultants

Where the consultants were perceived as not having sufficient knowledge of the business or the specific marketplace, then this often resulted in a lack a credibility. Additionally, consultants were sometimes seen as not necessarily doing the right thing for the business, as they had no long term accountability, e.g., “this business has always been highly sceptical of consultants and there are not many great stories where they really delivered the benefits - whether that's an organisational issue, or whether it's the specific consultants that came on board - it’s probably a combination of the two” (Interview 10). This position was clarified in that it was often down to the individual consultants and their own level of credibility in the eyes of the stakeholders. This is an important aspect in regard to the acceptance of a procurement initiative, as care should be taken if the initiative is being driven by externals, although conversely any internal resource will also need to be perceived as having the necessary skills, knowledge and competence.

4.2.5.9 Approach (to Supplier Management)

In general, there was not a great deal of detailed information as to the approaches that were expected from a successful procurement programme. The more senior interviewees looked more at the output rather than the process, although there were a number of comments that stressed the requirement for a link between the approach taken and the business requirements e.g., “a good one (procurement strategy) is where the business units understood what the strategies were, bought into them and were part of them” (Interview 10).

This may indicate that activities or approaches that constitute “good procurement” are not widely known by senior management, i.e., that there is not an accepted ‘blue print’ for good procurement that is available to the senior stakeholders of the business, and only when there has been first-hand experience is there a sufficient mental baseline to determine whether existing activity is good, bad or indifferent.

4.2.5.10 Governance

All 11 spoke about the need for good governance, and that there was a strong link between governance and credibility. Comments with regard to governance were typified by Subject 10, e.g., “I think the big thing was confidence. I don't think anyone had the confidence that we were going to get significant benefits and that actually we were going to see them come through to the bottom line - so many times we highlighted wins that in reality fizzled away and we never actually saw them hit the bottom line.” (Interview 10).

Independent review and a direct link into the finance function, ideally the CFO were highlighted as a requirement during a number of the interviews.

4.2.5.11 Communications and marketing - Stakeholder engagement

In all interviews communications were seen as an important issue, especially for the engagement of stakeholders throughout the business, e.g., “the challenge is how do you get the message simple enough, clear enough and jargon free enough so that it influences everybody from the board right down to the guy who sweeps the floor" (Interview 10). The issue of engagement of key stakeholders is stressed by the majority of interviewees and is typified by interviewee 3, i.e., "It's a bit of a chicken and egg situation, if I had to call it as to what came first, I would say the stakeholder and internal communications comes first in my mind." (Interview 3).

The issue of good communications and ability to generate good PR was seen as important, e.g., "It's absolutely the selling of the function." (Interview 5). This was typically however not seen as a core skill set within procurement, e.g., "clearly you tailor that message based on the needs of the recipient, but fundamentally you have to have everybody in the organisation on your side… most (procurement) people don't do a very good job of that in my opinion." (Interview 4).

The issue of mixed messages was identified, especially in relation to supplier communications, where the use of the word "partnership" as compared with the actions taken (often tactical and price driven) would lead to a mistrust from the supply base, and could therefore lead to a lack of credibility of the procurement staff (Interview 7).

Poor internal communications were cited as one of the reasons that a company-wide initiative was not supported, e.g., "to begin with I think that the communication channels were poor - certainly from my perspective, there should have been a much, much better communication of what the wider aims and benefits of this sort of initiative brings to the group" (Interview 6). This reinforces the need for the compelling case to be effectively communicated. Interviewee 10 sums the debate - "communication has got to be regular, it's got to be believable, it's got to be consistent and it's got to be targeted at the right people." (Interview 10).

In summary, communications were seen as key, especially for selling and promoting the procurement function. Additionally, communications were seen as essential for the reinforcement of the compelling case and for the engagement of key stakeholders. In the majority of the interviews, effective communication was seen as a vehicle for improving credibility, which was discussed in section 4.2.5.7.

4.2.5.12 The Role of Senior Management

There was general acceptance that senior managers need to actively support the procurement programme in order for it to be a success. In some cases, it was recognised that without the active support, the achievement of objectives is very difficult, e.g., "I think it's very difficult, in fact I think it's almost impossible for procurement to be successful by themselves… the CEO's real job is to achieve buy-in and alignment to get the whole thing to work" (Interview 4). This therefore leads to Observation 6: -

Observation 6 - Active senior level support is important in how the organisation as a whole supports the programme.

4.2.5.13 Additional areas identified

Other areas were identified within the interviews, although these were either raised by only a small number of participants, or were part of a wider discussion. For example, structure was mentioned by Subject 3 and Subject 5, both of whom were procurement practitioners. This could indicate that the debate about structure is a procurement industry topic and of less relevance to the key stakeholders, a position reinforced by Brookes, et al., (2007), and Morton, et al., (2004), who state that it is the informal network that is important, rather than the formal structure in place.

Management of expectations was raised within interview 4, although this did relate to the discussion on credibility. The dichotomy of the need for a positive spin on the outcomes during the initial "selling" part of the process, was compared with the need to understate and over-deliver in practice in order to build credibility. The overselling at the beginning of a programme was attributed especially to consultant led programmes.

Time Management was raised during interview 2, and related to the approach that individuals within the organisation were encouraged to take. Within Subject 2's organisation a 2:1:2 split of time is promoted e.g., 40% of time on external suppliers, 40% of time on internal stakeholder management and 20% of time on administration.

4.2.6 Summary of findings and definition of success

One of the key reasons for undertaking the interviews with the key "commissioners" of procurement activity was to answer research Objective 1, i.e., to define effective procurement. It was also envisaged that the interviews would highlight additional information that would be relevant in the development of the procurement effectiveness model (i.e., supporting Objective 2), and that information obtained during the interviews would serve to confirm, counter or supplement the information already obtained previously.

In relation to research Objective 1 i.e., to define effective procurement, it can be concluded that a definition for effective procurement is situation specific and will be dependent on a number of issues including the key stakeholder experience, perceptions of procurement and the specific business requirements, however generically, effective procurement can be defined as: -

Effective procurement is where the buy-side of the business has achieved a position that is fundamental to the enterprise and drives the achievement of business objectives taking consideration of stakeholder expectations, perceptions and business requirements.

In relation to Objective 2, Figure 27 shows a summary of the themes that emerged from the interviews. The factors in bold type indicate the "prompted" factors, i.e., they are directly attributable to a particular question, whilst the items in normal type are additional factors that emerged and were subsequently coded within NVIVO10. The section number where the content is discussed is also shown for ease of reference.

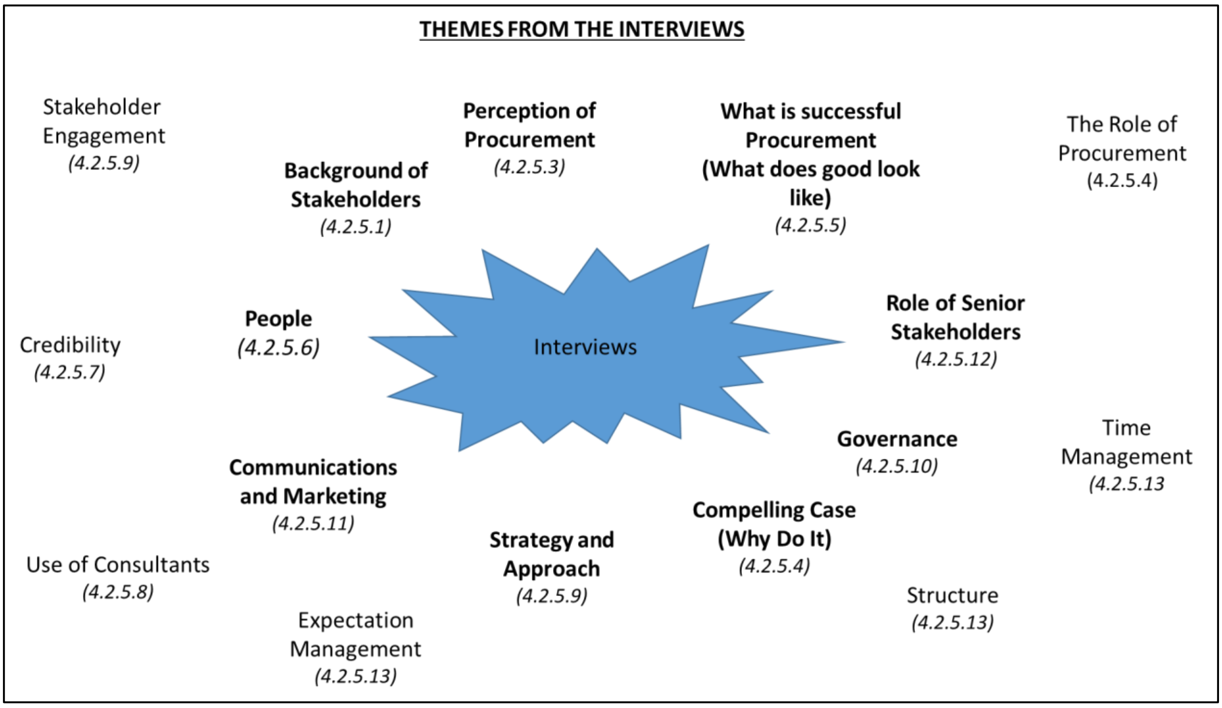


Figure 27 - Themes from the stakeholder interviews

In the main, the stakeholder interviews confirm the information obtained from the literature review, although there were a number of significant differences between the two. If you compare Figure 27, with the provisional procurement effectiveness model shown in Figure 29, there are a number of common themes including; people, role of senior stakeholders, governance, communications and marketing, perception of procurement etc. There are however a number of significant differences and differing emphasis between the two. For example, the background and experience of the stakeholders was identified from the interviews but is absent from the literature review. Additionally, the explicit focus on credibility and the emphasis on the development of a compelling case for procurement, is more implicit within the literature, whilst explicit for the key stakeholders.

The following observations were determined throughout Phase 1: -

- Observation 1 - The background and experience of key stakeholders has a bearing on how they actively support procurement, and the expectations of the role of procurement. (i.e., If a subject has had previous experience of successful strategic sourcing then they are more likely to actively support a transformation programme).
- Observation 2 - The compelling case needs to be real for the stakeholders within the business and needs to be effectively articulated throughout the enterprise.
- Observation 3 - The perception of procurement is still one of poor relation to the other functions of the business and perceived as non-critical, although this is changing where people have good experience of procurement and strategic sourcing transformations.
- Observation 4 - The role and key objectives of procurement should be based on an analysis of the business need, although in the majority of cases, this business need is for savings. Aligning the objectives of procurement to the requirements of the business is an essential factor e.g., risk and reputation management is a key requirement within industries such as Pharmaceuticals.
- Observation 5 - Credibility is key - Procurement people first need to build up credibility. Skills, knowledge and competency as well as good governance are antecedents to credibility.
- Observation 6 - Active senior level support is important in how the organisation as a whole supports the programme.

Additionally, the need for language that relates to the business rather than the language of procurement was taken as a good idea.

The observations are at this stage based on only a small sample of interviews and are therefore anecdotal in nature, and cannot therefore be deemed at hypothesis. They do however serve to guide and inform the approach to be taken during the Chesapeake Packaging case study, in order to provisionally test and challenge the observations and assumptions as a precursor to hypothesis development.

The implications for the Chesapeake packaging case study are discussed in the next section.

4.2.7 Implications for the Chesapeake Packaging Case Study

From this phase of research and the previous section, it was asserted that the definition of effective procurement is situation dependent and has a number of antecedents including; the background of stakeholders, the compelling case, perception of procurement and role of procurement. From the interviews with the key stakeholders, there were a number of observations and issues raised that should be addressed within the Chesapeake Packaging case study.

Observation 1, stated that the background and experience of key stakeholders could have a bearing on how they actively support procurement. For this reason, as part of the initial assessment process, the background of the Chesapeake stakeholders was ascertained in order to determine whether they would be active supporters, passive, or against any procurement initiative.

The interview process highlighted the need to develop and communicate the compelling case for procurement within the key stakeholder community (Observation 2). Within Chesapeake Packaging there had, prior to the private equity ownership, been a period of the company being in Chapter 11 (a US equivalent to pre-bankruptcy), and this was clearly fresh within the minds of the Chesapeake interviewees and provided a sufficiently strong compelling case. For other stakeholders, the level of awareness of the need for a procurement initiative therefore needed to be tested and a suitable communication programme developed. Additionally, ensuring that the compelling case was relevant to the operating business units would be a focus area, as from the interviews, it could be concluded that just having the CEO or senior team supportive was insufficient for the operating businesses to fully buy-in to the initiative (interview 6).

From Observation 3, the premise was that procurement is potentially still the poor relation within organisations. Within Chesapeake, it was the intention to establish professional procurement as a key part of the business through the appointment of a Chief Procurement Officer, reporting to the Chief Executive Officer. It can therefore be assumed that, at the top levels of the organisation, there was an acceptance that procurement was important, however the perception of procurement throughout the management and operational hierarchy would still need to be tested in order to assess whether there would need to be time spent on communicating the case for procurement to a wider audience.

From Observation 5, i.e., credibility is key, a concerted effort to build a high degree of credibility with both the procurement people and the procurement programme would need to be given a high priority. This would be achieved through a focus on good governance and on the people skills, knowledge and competency.

Observation 6, indicated that active senior management support was an important factor. For the Chesapeake Packaging case, it would therefore be important to promote the involvement of senior stakeholders as a fundamental part of the process and in many cases implement them as sponsors of individual procurement initiatives.

In general, the key stakeholder interviews have provided a degree of guidance in regard to the key stakeholder expectation and requirements. Much of the points raised have been covered within the existing literature, although the interviews have indicated that the emphasis on some aspects should be given a higher priority. The main objective for the stakeholder interviews was to define successful procurement which, specifically for Chesapeake Packaging is covered in the next section.

4.2.7.1 Definition of Effective Procurement (for Chesapeake Packaging)

Using the definition of effective procurement detailed in section 4.2.6, and according to Observation 4, (where the role and scope of procurement should be determined based on the needs of the business), the key sponsors of the initiative were the private equity investors (Oak Tree Capital and Irving Place Capital). Since they had appointed interview Subject 1 as Chairman and CEO, it was clear that the requirements of the private equity investors and the new CEO would be the key driver for this initiative. In this regard, the owner's objective was "enterprise value", which translated directly into a primary objective of savings delivery. In addition, professional procurement within Chesapeake Packaging could add to the enterprise value by: -

- Delivering EBITDA based savings
- Generating working capital
- Being perceived by any potential purchaser as being in control of its suppliers and supply chains
- Winning additional business on the back of the procurement function i.e., procurement as a differentiator

The requirements of the operating business units, and their management also needed to be considered, and through discussions prior to the commencement of the activity, it was ascertained that the business unit management were all subject to a performance related bonus scheme that was related to the profitability of the business. For this reason, the initial focus on savings as the key objective would meet both the objectives of the owners and the business unit management teams, however this would be tested during the initial assessment or "As-Is" phase of the activity.

Savings would be the "entry ticket", and the vehicle for building credibility within the stakeholder community although a progression to a more balanced approach to procurement would be crucial in order to support the long term viability of the programme.

The final approach adopted within the Chesapeake Packaging case study would need to be confirmed once the As-Is phase was completed, although the definition of savings as per the previous section would be used as a basis for this. The next section details the final development of the model through the expert sessions during the Phase 2 of the research programme.

4.3 Phase 2 - Develop the model

Phase 2 activity was designed to further develop and enhance the procurement effectiveness model. The provisional model was created from the literature review, and has been supplemented by information obtained through the stakeholder interviews. The model is now subject to oversight and review through a series of "expert sessions" with procurement practitioners so that it can be finalised and applied within the Chesapeake packaging case study.

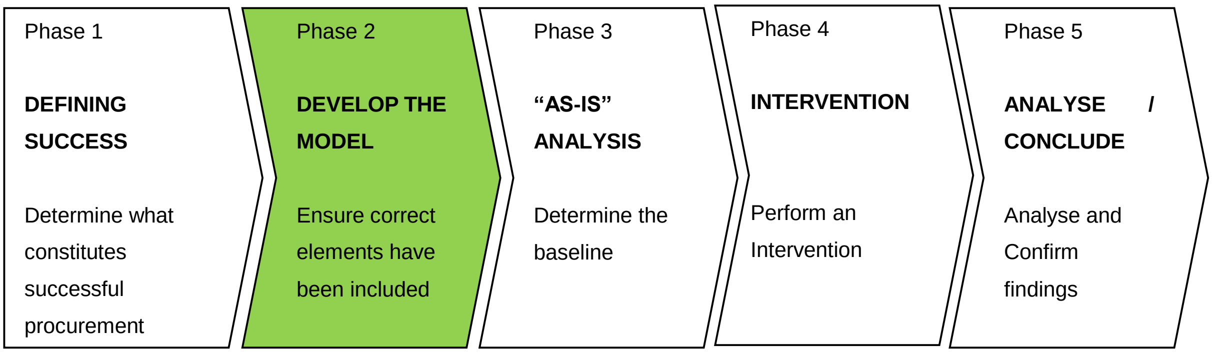


Figure 28 - Develop the Model

4.3.1 The initial model

From the literature review, a provisional procurement effectiveness model was created. See Figure 29 below-

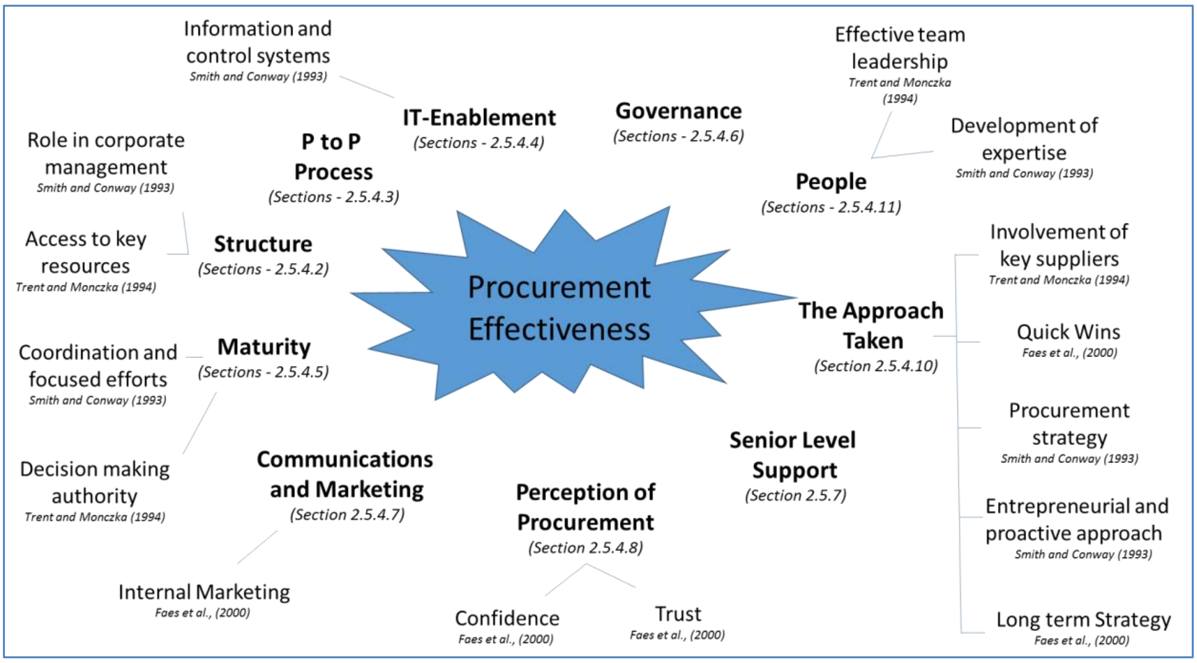


Figure 29 - Provisional Procurement Effectiveness Model

This provisional procurement effectiveness model, and the summary output from the key stakeholder interviews (Figure 30), was presented within the respective expert session workshops, and discussions initiated through brainstorm activity. In the case of the iSource workshops the discussions were recorded, although in both forums, the output was captured on flip-charts and through written notes taken during the session. The expert sessions were designed to review the findings from the initial model and to further enhance and develop it into something that could be applied within an organisation. The workshops were mainly within two specific procurement based industry forums, where professional procurement practitioners were invited to share experience and best practice. The iSource event was specifically created to review procurement effectiveness and the PEPPS project research, whilst the Strategy Insight activity was based around a series of breakout sessions within a wider procurement and supply chain conference organised by the Strategy Insights organisation with the session administered by the lead researcher for this research programme.

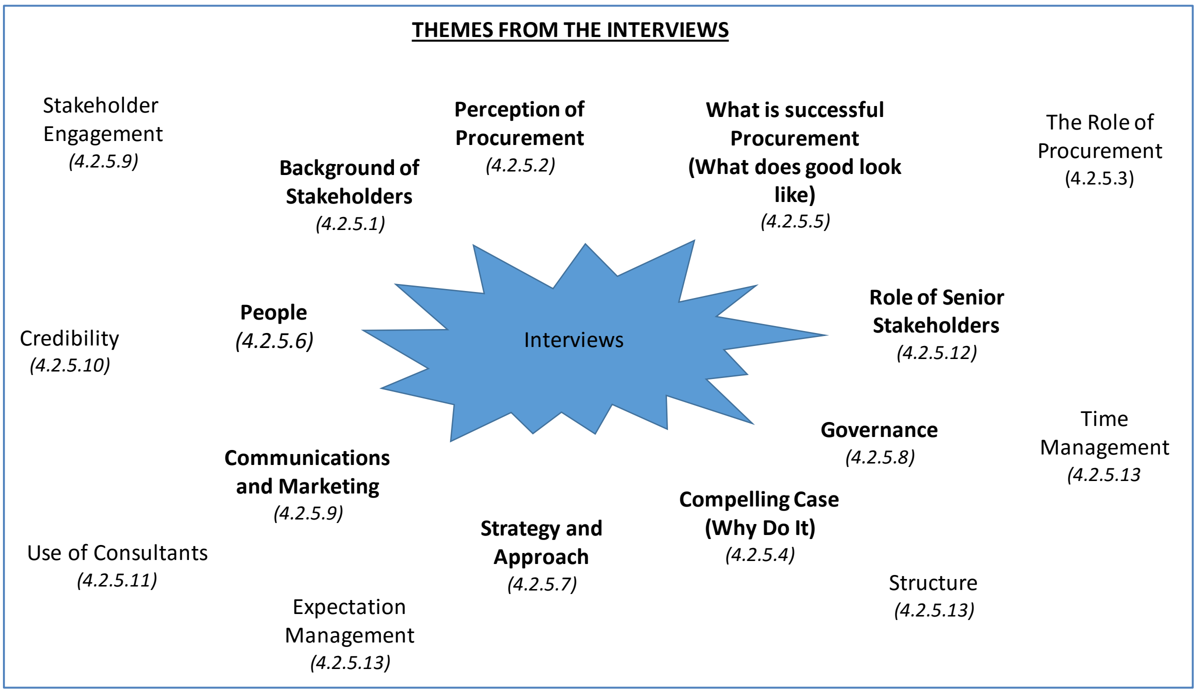


Figure 30 - Summary output from the stakeholder interviews

4.3.2 The provisional Procurement Effectiveness Model - General comments

The procurement effectiveness model concept and discussion was well received and the consensus was that the model had real value and that this was the first time that both hard and soft elements had been considered within one holistic approach. All were familiar with the multi-step processes offered by procurement consultancy companies although it was agreed that these did not sufficiently cover the less obvious and often critical determinants of success.

Discussions around further grouping the model into simpler categories would ease the application and communication process, and subcategories within each simplified category could be determined in order to create a "road-map" for a procurement transformation programme. The following groupings were determined: -

- ***Compelling Case***: - This was taken mainly from the stakeholder interviews and was seen as a key and fundamental part of the requirements going forward, and would incorporate the reasons that a transformation programme should be undertaken and the level of support from senior executives within the organisation based on their own background and experience.
- ***People and Competency*** - This included the people involved in the procurement programme, and within the organisation as a whole, i.e., whether the organisation had the maturity to accept a major procurement change programme.

- ***Strategy and Approach*** - The approach taken by the procurement function to the management and development of the supply base.
- ***Communications, Marketing and Data*** - How the programme is communicated, and how the procurement objectives are aligned to the business requirements.
- ***Governance*** - Control and measures on procurement, linking directly to credibility.
- ***Infrastructure*** - Systems and processes required to support. (It was agreed that the infrastructure element sat outside of the main model, as it was felt that good infrastructure would support the speed of implementation, rather than the effectiveness. An example being data systems - if good data was readily available then this would support the rapid development of procurement strategies, however the absence of good data would result in a slower process, as time would need to be invested in getting to the required level of data etc.)

The final model is shown in Figure 31 below.

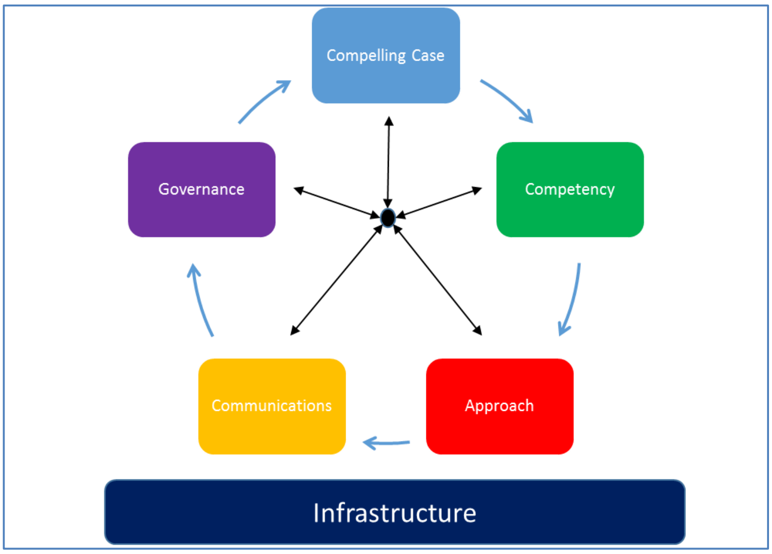


Figure 31 - Simplified Procurement Effectiveness Model (From the expert sessions)

4.3.3 Sub-Factors and measurement process

Each of the main factors were expanded in order to determine the next level components that were key for the headline factor to be realised. Sub-factors were identified and grouped into the six main areas of the model, in order to determine a consistent approach to each of the main elements.

4.3.3.1 Sub Factors - Compelling Case

The compelling case category was sub-divided into five sub categories, which were each specified in terms of the ideal situation.

Item	Ideal position
A genuine need and suitable business environment	• The need for the company to embark on a procurement transformation is known and does not need to be reinforced
CEO Active Support	• CEO actively involved, interested, supportive, communicates widely in support of procurement
Senior Team engagement	• Senior team supportive and actively supporting the programme
Procurement organisation	• CPO / head of procurement exists and reports directly into the CEO • Procurement organisation is clear and aligned to business requirements
A clear case for procurement made to the wider organisation	• Wider organisation knows and understands the need for the procurement programme and are engaged and actively support

Table 23 - Compelling Case Attributes

It was recognised that many of the factors were inter-related, an example being the clear case for procurement being made to the wider organisation. In these cases, the allocation of sub-category to main heading was made based on where the group felt that the information was best located.

4.3.3.2 Sub Factors - People & Competency

The Competency category was divided into six sub-categories that were focused on the people within the procurement function. It should also be noted however that there were also discussions regarding the competency of the organisation, i.e., whether the organisation itself was mature enough for this approach to be successful, as some organisations were not at the stage where they would readily accept a procurement transformation. This factor however also crosses over to the compelling case element, where it was agreed that organisations who were not ready, typically did not have a strong enough compelling case for change.

Item	Ideal position
Competency assessment process	• Formal assessment process linking the people competency set to the requirements of the business
People recruited with the right level of skills knowledge and competency	• Full organisation of people with the correct levels of skills knowledge and competency
Ongoing people development process in place	• Active development programme exists that focuses on skills knowledge and competencies
Skills	• Problem solving and decision making • Project Management • Data Analysis and manipulation • Negotiation Skills • Networking and stakeholder management • Procurement Professionalism

	• Risk Management
Knowledge	• Contract Management • Procurement toolbox • Technical understanding • Category Management
Competency	• Drive and Determination • Influence and Communication • Concern for Order and Detail • Leadership and Teambuilding • Commercial Intuition • Emotional intelligence • Dealing with stress and pressure

Table 24 - Competency attributes

4.3.3.3 Sub Factors – Approach (to Supplier Management)

The Approach category had 10 sub-categories identified, and was a mix between scope, philosophy and activity. The final sub-factors agreed were generic, as it was difficult to be prescriptive as many of tools were situation dependent. For this reason, the sub-factors that were agreed allowed for a degree of granularity to be determined that could be tailored to the specific organisation, industry or sector that was under consideration.

Item	Ideal position
Customer and Business Orientation	• A high degree of customer orientation in the development of procurement strategies. • Measures taken to improve Trust • Make vs Buy
Boundary-Less Procurement	• Open scope to include all areas of external spend regardless of function etc. • End to End scope from Raw Materials through to End-Use customer
Suitable Organisational operating structure	• A balance between centralised and decentralised activity, and an inclusive and cross functional approach - flexibility based on market and business needs
Total Cost Management approach	• Total Acquisition cost approach - scope to include end-to end activity including logistics and supply chain management
Supplier Relationship Management Approach	• Consideration made to relationships and Game Theory within the supply chain design activity
Risk Management	• Supply continuity risk management • Contract based risk management
Active Supplier Management	• Effective Supplier Selection • Metrics developed and applied that supports business requirements Supplier Performance Measurement • Active supplier performance improvement activity

Strategy Development	• Includes regional and Global analysis • Active business / divisional / site input to the development of strategies • Strategy documentation used as communications tool • Regular strategy updates and communication updates
Innovation development	• Active process for the capture and commercialisation of innovation from the supply base
Efficiency of process	• Efficient P 2 P process • ERFx processes • Compliance management

Table 25 - Approach Attributes

4.3.3.4 Sub Factors - Communications, Marketing and Data

Communications. Marketing and Data was subdivided into five sub-categories, and included the objective setting process as well as internal / external communication activity and PR.

Item	Ideal position
Objectives setting and cascade Process	• Policy deployment type process in place • Include people and how to influence within policy deployment process (e.g., Policy deployment +)
Internal communication	• Close collaboration and good knowledge of business needs • Procurement approach communicated to the business (including the reasons why it is important (compelling case at a lower level) • Internal PR and good news stories • Perceptions survey
External communication	• Communication of Procurement as a differentiator • Supplier perceptions survey
Maturity of discussion	• Movement from “I don’t believe the savings” to “Where have the savings gone” • Lessons learned • Procurement savings built into overall budget process • Consequential management (e.g., actions taken from internal / external perceptions survey)
Data	• A robust and timely process for the consolidation of accurate spend data (including demand and specification information)

Table 26 - Communications and Marketing Attributes

4.3.3.5 Sub Factors - Governance

The governance category had only two sub categories and was focused on internal verification of activity and external or organisational compliance to procurement strategies that had been adopted.

Item	Ideal position
A robust method for the tracking benefits	• Benefits positioned as "Business" rather than "Procurement" benefits • Independent verification of delivered savings • Robust programme management approach to the evolution of ideas through to verified business benefits • Direct link of delivered savings to P+L impact
Compliance measures	• Controls and Measures on the business for compliance against procurement policy

Table 27 - Governance Attributes

4.3.3.6 Infrastructure

Infrastructure was defined as the things that were required that could speed up the process for managing the procurement change process. As previously mentioned, it was agreed that the infrastructure element was an enabler, although not a determinant. For example, having a system to provide data quickly did not in itself improve effectiveness, as the end result could still be achieved, although it would take longer. The infrastructure element was therefore outside of the main, 5-point procurement effectiveness model.

Item	Ideal position
Infrastructure	• Data systems - timely availability of spend data • Systems for demand management • Effective P to P processes

Table 28 - Infrastructure

4.3.4 Final model to be applied

The final model (Figure 32), to be applied in the Chesapeake Packaging case study has evolved from the initial provisional model that was developed from the literature review.

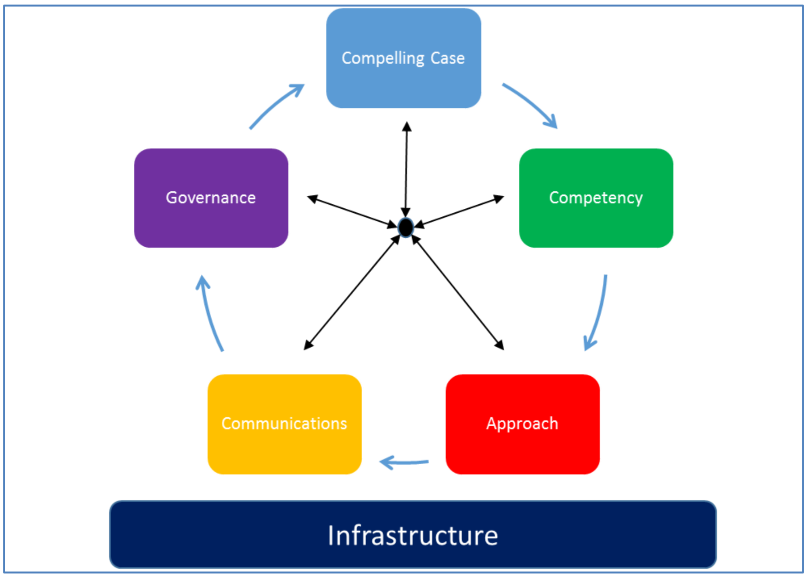


Figure 32 - The Enhanced Model (to be applied)

The model has five key factors that relate to determinant factors that are believed to be important when undertaking activity to improve or transform a procurement function. Each of the five factors have been further split into a number of sub-categories that define the detail behind the high level category. Figure 33 shows the sub category detail, which is now taken forward to the Chesapeake Packaging case study. The initial "As-Is" or diagnostic is shown in the next section in order to provide a baseline from which any intervention can be measured.

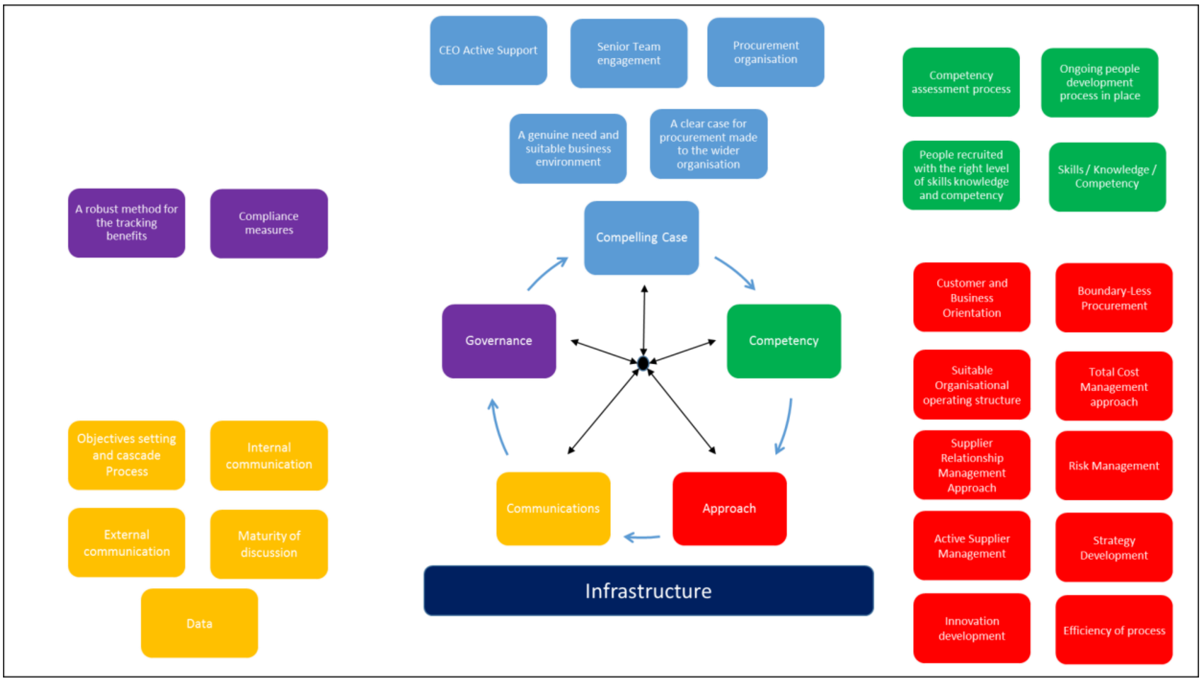


Figure 33 - The Enhanced Model (with Sub-categories)

4.4 Phase 3 - The As-Is (Base Case) analysis

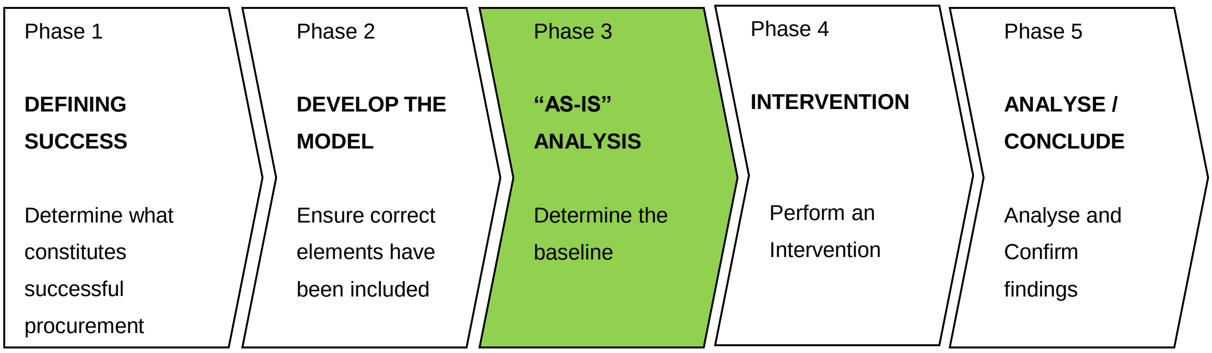


Figure 34 - As-Is Analysis

4.4.1 Introduction

The Chesapeake Packaging case study constitutes the main body of the research and was undertaken from October 2011 until December 2013. The lead researcher assumed the position of Chief Procurement Officer, reporting to the Chairman and CEO of the business. As Chief Procurement Officer, the researcher was given a wide remit to improve the procurement function and prior to the assignment, it was agreed that the programme of improvement within Chesapeake Packaging could be used as a case study for the DBA research (although this fact was not widely publicised as it was concluded that this knowledge may affect the process and outcome should it become widely known within the organisation). Very little guidance or requirements were given by the senior executive prior to the commencement of the programme as it was a deliverable of the CPO to report back early in the process a plan of what could be achieved. This fact made Chesapeake Packaging an ideal case study that combines a business need with an opportunity to support to an academic study programme.

4.4.2 The Company - Chesapeake Packaging Ltd.

In previous times, Chesapeake Packaging had undergone procurement improvement initiatives, although none had been successful in the eyes of the senior executive team. The organisation had previously tried to centralise procurement, although this programme was halted after some 18 months due to lack of performance and a lack of engagement with the wider business.

In 2010, following the emergence from Chapter 11, and under the sponsorship of the Chairman and CEO, a new procurement initiative commenced that was managed by external consultants, and in order to respect confidentiality, they will be referred to as "The Consultancy Company" within this thesis. Following the initial phase of the Consultancy Company led programme, it was decided that it was not suitable to continue with external support for the long term as there was growing resistance to an externally managed programme, so a search was initiated for a Chief Procurement Officer. The programme was initially in conjunction with the Consultancy

Company, being led internally by one of the senior executives of the business who also acted as the technical services director for the organisation.

Paul Joesbury, the lead researcher, was recruited October 2010 to re-engineer the programme and to improve procurement in order to prepare the organisation for either a potential trade sale, sale to another Private Equity house, or to float the company on the stock exchange. Either of the exit options required procurement to improve enterprise value and to position procurement as a key and strategic function within the business as a whole.

4.4.3 The Consultancy Company initiative - Baseline for the activity

The Consultancy Company were selected following a review of alternative consultancy groups and worked with the organisation to develop and run a procurement transformation programme whose main objective was one of savings. Their approach followed a general approach to the introduction of category management adopted by many procurement consultant companies.

4.4.3.1 Results from the Consultancy Company activity

The Consultancy Company declared a savings performance of £2.3m during Phase 1 activity; however, this was subsequently revised down to less than £1m when the enhanced governance rules developed during Phase 4 were applied retrospectively to the savings in order to provide a clear baseline for the new procurement programme based on the procurement effectiveness model.

4.4.4 Initial assessment by the lead researcher

Initial observations were captured within a presentation to the Executive Steering Committee and a copy of the slides can be found in Appendix 6. The initial findings slide is shown in Figure 35 as this summarises the position following the Consultancy Company programme.

The Consultancy Company programme had made a good start on the process of change and had built a momentum around the category management process. Savings had been delivered, although the validity of those savings were questioned by the stakeholders (resulting in doubts over the programme governance) and there was a degree of "going along with the programme" by the key stakeholders as the programme had clear sponsorship from the CEO. It was clear even at this stage that CEO sponsorship in isolation was not sufficient for the compelling case to be strong, supporting Observation 2, (i.e., *that the compelling case needs to be real for the stakeholders within the business and needs to be effectively articulated throughout the enterprise)*.

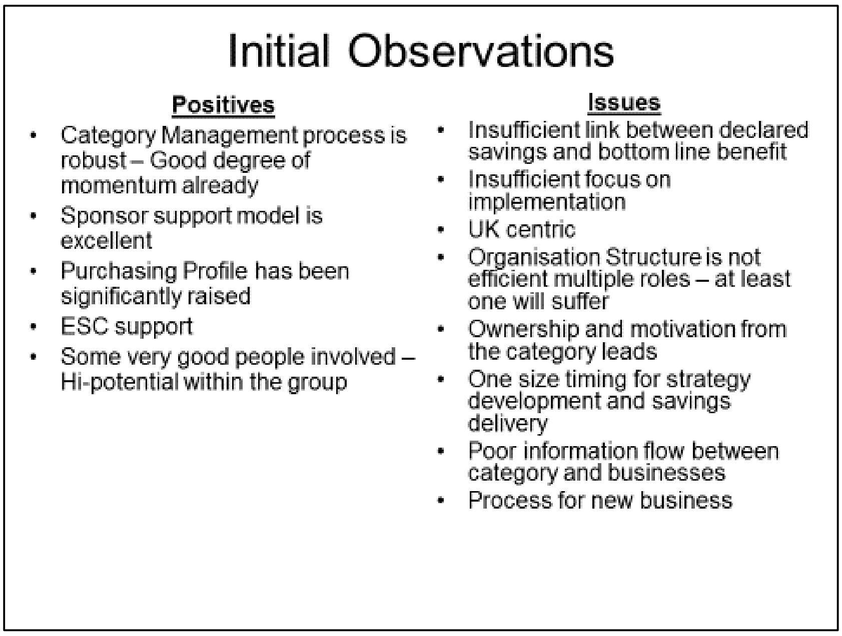


Figure 35 - Initial Findings - (Taken from executive steering committee presentation)

An initial assessment of the senior management engagement was mixed and the term "appearance of compliance" was used by a number of stakeholders during informal and "off the record" discussions. Within the executive meetings there were very few detractors in front of the CEO, however during the more informal discussions, there was a number of the senior team who voiced criticism, and actively moved to undermine the programme in some cases, leading to Observation 4a: -

Observation 4a - CEO sponsorship in isolation is not sufficient for the compelling case to be strong.

Savings delivery was also perceived as poor, and the link between the identification of savings and the realisation within the business was not sufficiently strong, as an example neither the CFO, or any member of his team were involved in programme governance. There was a degree of scepticism from the senior stakeholders in regard to this being a consultant led programme, and a feeling that it was in the interests of the consultants to exaggerate the savings as their fees were delivery based. The structure developed by the consultants was more aligned with centralisation rather than decentralisation which took power away from the operating division. The general motivation of the category leads was poor, with unclear objectives, reporting structures and a feeling of unrealistic expectations being imposed on them.

4.4.5 The use of the Procurement effectiveness model in the As-Is analysis

Following the initial high level review, the final procurement effectiveness model (and its associated sub categories), was used as a framework for the more detailed assessment of the organisation.

4.4.6 The "Compelling Case" Element

The compelling case factor is split into 5 subcategories (Figure 36) and the initial position is summarised in Table 26.

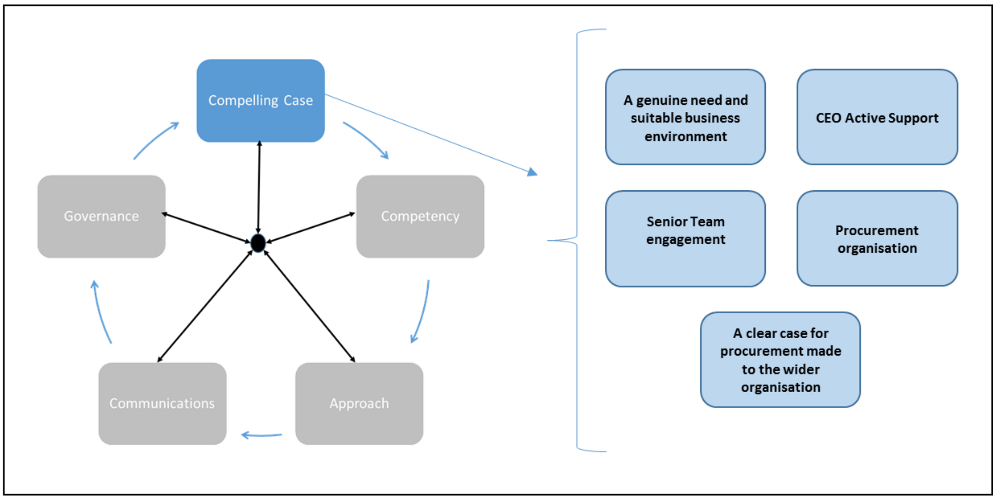


Figure 36 - The Enhanced Model (Compelling Case)

The following initial assessment was made at the start of the transformation programme.

Item	Ideal position	Chesapeake (initial)
A genuine need and suitable business environment	• The need for the company to embark on a procurement transformation is known and does not need to be reinforced	• Chesapeake had recently emerged from Chapter 11
CEO Active Support	• CEO actively involved, interested, supportive, communicates widely in support of procurement	• JK very supportive of the procurement programme.
Senior Team engagement	• Senior team supportive and actively supporting the programme	• Not all executive team supportive Appearance of compliance and some undermining within business units
Procurement organisation	• CPO / head of procurement exists and reports directly into the CEO • Procurement organisation is clear and aligned to business requirements	• CPO position reporting into the CEO exists • Procurement organisation needed development
A clear case for procurement made to the wider organisation	• Wider organisation knows and understands the need for the procurement programme and are engaged and actively support	• Limited knowledge or engagement from the wider organisation

Table 29 - Compelling Case - Baseline Comparison

Chesapeake as an organisation had recently emerged from a period of Chapter 11 bankruptcy, and the need to deliver bottom line improvement had been constantly reinforced by the new Chief Executive. It was the CEO who had initiated the procurement transformation programme, and had engaged the senior managers within the recruitment process for both the external consultants and the CPO. The compelling case was therefore already quite strong within the business, however the need for the procurement transformation was reinforced during the early days of the transformation process by a series of presentations and awareness sessions. It was however interesting to note that the programme was not fully supported by the senior team, as there was a perception that the "power" was being taken away from the business units, and there was generally a poor level of credibility for some of the consultants assigned to the programme (as well as some of the internal practitioners). A feeling of "being done to" was common amongst the second and third tiers of management, and a degree of resentment over "highly paid consultants" who were presenting impressive savings numbers whilst the benefits did not appear to materialise to the bottom line of the business.

From the expert sessions, it was concluded that the organisation structure was often an indicator of how an organisation viewed their purchasing department, and therefore could be an indication whether the compelling case for procurement was strong. Chesapeake was structured with an autonomous business unit model, and procurement was predominantly traditional, i.e., a reactive, paperwork intensive clerical function which focuses on transaction processing (Sagev and Gebauer, 2001). There was very little coordination across business units, with the exception of board and paper procurement which was centralised, in that control and decision making were made by a central group on behalf of the overall organisation (Pattersen et al., 2000).

The initial organisation structure set up by the consultants was one of key individuals within the existing organisation being assigned category responsibility (in addition to their day job) and being shadowed by a consultant from the Consultancy Company. Additionally, an executive sponsor was assigned to each of the category areas in order to ensure that the initiative was positioned at the correct level within the organisation.

This organisation provided a major focus on the procurement initiative, and succeeded in setting a high expectation within the stakeholder base, however on further analysis a number of weaknesses were also evident: -

- The organisation structure was not seen as permanent as it was project based, leading to a lack of commitment in some areas. (People believed that the initiative would eventually go away, so they just needed to support "enough" not to be seen as a blocker, but also not fully buying into the programme - there was a degree of “appearance of compliance”).

- The procurement people assigned with category responsibility were not released from their day to day responsibilities. The level of support provided to each business unit depended on the category lead’s allegiance. It was clear that initiatives led from someone within the pharma business unit did not sufficiently support the other business units. (The same was for initiatives led by someone within the branded goods division etc.), this was because there was a perception that ultimately they would return fully to their previous positions and that the division who paid their salary should get the most focus.
- Some non-procurement members of the team were seconded in on a part time basis and were from other disciplines within the organisation, and support the position of Driedonks et al., (2010), who suggest that this is still common in sourcing teams, and a risk in that the individuals may prioritise other responsibilities outside the team.
- There was a mixed level of engagement from the executive sponsors, and significant variance to the level of procurement expertise (especially stakeholder management) from within the cohort chosen to lead category activity (not all those asked to lead a category had a procurement background).

4.4.7 The “Competency” Element

The competency factor is split into 4 subcategories (Figure 37) and the initial position is summarised in Table 27. The competency dimension focused on the skills, knowledge and competency of the procurement practitioners and was seen as an area of significant weakness at the start of the programme.

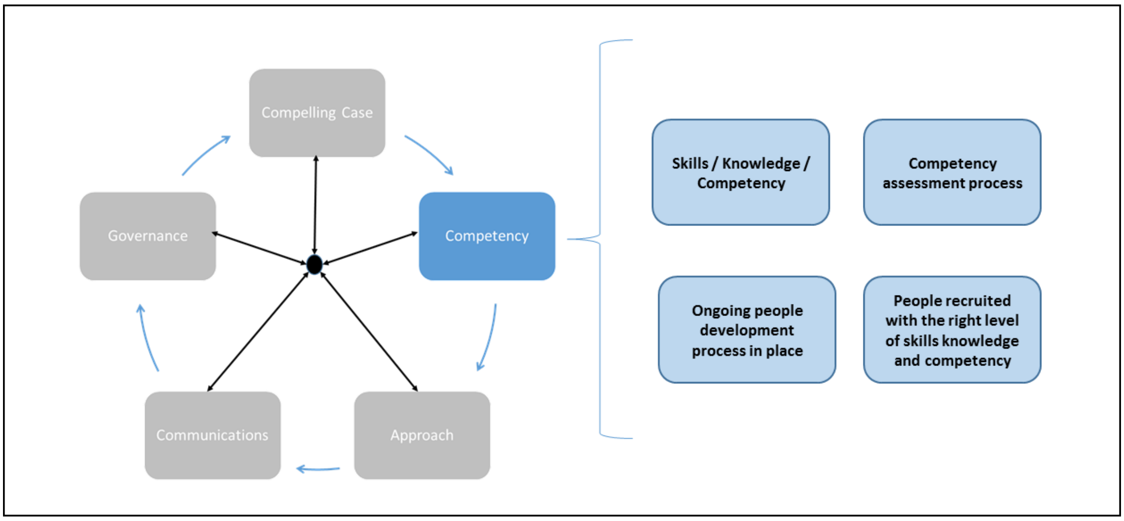


Figure 37 - The Enhanced Model (Competency)

Item	Ideal position	Chesapeake (Initial)
Competency assessment process	• Formal assessment process linking the people competency set to the requirements of the business	• Limited assessment of required competencies (only introduced within the Consultancy Company process and at a basic level)
People recruited with the right level of skills knowledge and competency	• Full organisation of people with the correct levels of skills knowledge and competency	• Low level of staff available with the correct levels of skills knowledge and competency
Ongoing people development process in place	• Active development programme exists that focuses on skills knowledge and competencies	• No ongoing development activity
Skills	• Project Management • Data Analysis and manipulation • Negotiation Skills • Networking	• Limited skills development activity
Knowledge	• Contract Management • Procurement toolbox • Technical understanding	• Limited knowledge development activity
Competency	• Drive and Determination • Influence and Communication • Concern for Order and Detail • Emotional intelligence • Dealing with stress and pressure	• Generally, a low level competency profile within the group with some exceptions

Table 30 - Competency baseline comparison

4.4.7.1 The people

The initial organisation structure was based around category assignments, with an alignment to a sponsor and consisted of 11 people. These 11 were taken from different divisions and given an assignment brief. Each of the 11 were originally assessed by the Consultancy Company, and were re-assessed during the people development process developed as a part of this research programme.

Of the 11, five were released following the revised assessment programme, and four were re-assigned into new positions within the procurement function. In general, there was a mismatch between the required level of skills, knowledge and competency to that demonstrated by the individuals during the assessment process, and a significant gap in terms of people capability was identified.

4.4.8 The “Approach” Element

The approach factor is split into 10 subcategories (Figure 38) and the initial position is summarised in Table 28.

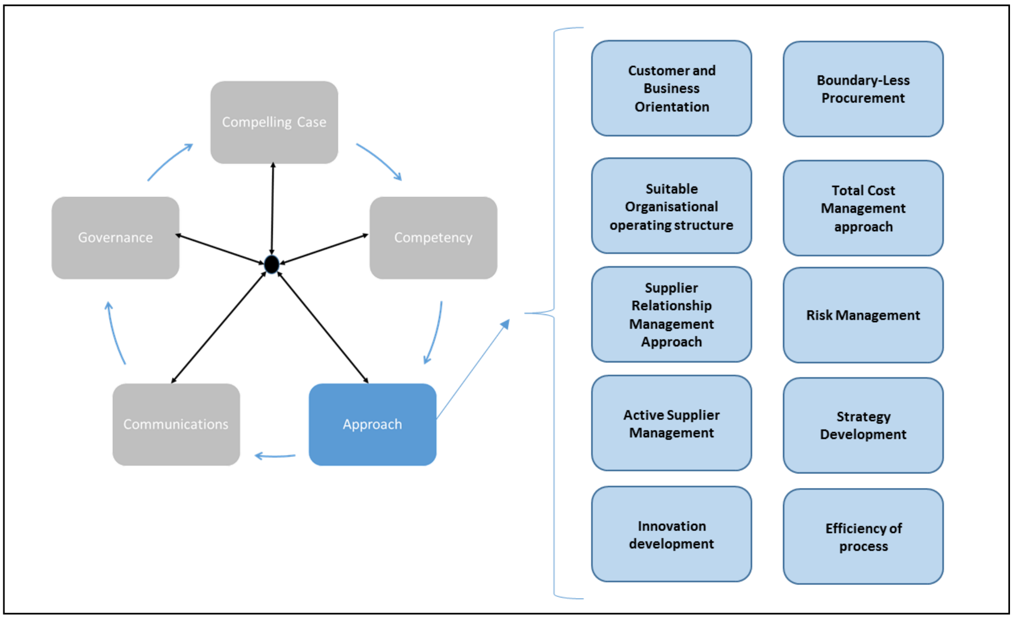


Figure 38 - The Enhanced Model (The Approach)

The approach taken by the Consultancy Company, and the internal procurement staff was very tactical in nature and focused on ticket price reduction. There was a significant misalignment in the language used with suppliers, e.g., “we want you to be our strategic partner”, closely followed by “if you don’t reduce your price, then you will lose the business!”

Item	Ideal position	Chesapeake (Initial)
Customer and Business Orientation	• A high degree of customer orientation in the development of procurement strategies. • Measures taken to improve Trust • Make vs Buy	• Low level of business and customer orientation. Procurement seen as a tactical and low level, non-strategic business function • Low levels of trust • No evidence of Make vs. Buy activity
Boundary-Less Procurement	• Open scope to include all areas of external spend regardless of function etc. • End-to-End scope from Raw Materials through to End-Use customer	• Main focus on raw materials, low level of activity in other areas • Scope was solely purchased parts - no end to end thinking
Suitable Organisational operating structure	• A balance between centralised and decentralised activity, and an inclusive and cross functional approach - flexibility based on market and business needs	• Paper purchasing centralised. Other areas de-centralised with very low level of collaboration • Organisation structure poor
Total Cost Management approach	• Total Acquisition cost approach - scope to include end-to end activity including logistics and supply chain management	• Tactical - price driven approach - no evidence of TAC
Supplier Relationship Management Approach	• Consideration made to relationships and Game Theory within the supply chain design activity	• No evidence or acknowledgement of supplier relationship management • Mismatch of language to approach
Risk Management	• Supply continuity risk management • Contract based risk management	• Supply continuity managed on a case-by-case basis. Organisation very successful at ensuring product availability through a tactical approach to crisis management

Active Supplier Management	• Effective Supplier Selection • Metrics developed and applied that supports business requirements Supplier Performance Measurement • Active supplier performance improvement activity	• No formalised supplier selection process • No supplier performance metrics • No supplier development activity
Strategy Development	• Includes regional and Global analysis • Active business / divisional / site input to the development of strategies • Strategy documentation used as communications tool • Regular strategy updates and communication updates	• The Consultancy Company introduced a gateway process to strategy development. • Limited business unit input to strategy development • No formal documented strategies
Innovation development	• Active process for the capture and commercialisation of innovation from the supply base	• No forum for capturing innovation
Efficiency of process	• Efficient P 2 P process • ERFx processes • Compliance management	• P to P processes not standardised • Limited eProcurement tools in place • No compliance management

Table 31 - Approach baseline comparison

In general, there was a low level of customer orientation from within the procurement function and their scope was limited to the more traditional areas of procurement activity, e.g., direct materials. There was a mixed and inconsistent operating structure that had evolved around certain individuals, and their own influence within the organisation, e.g., board purchasing was centralised, whilst ink and varnish spend was de-centralised. There was no evidence of a “total cost” approach, and there were examples where sub-standard products had been specified by the team due to perceived lower price, resulting in much higher re-work and rectification costs. Supplier relations were often strained and there was no activity that promoted genuine collaborative working or the development of innovative supply solutions, resulting in a mistrust between Chesapeake and its suppliers. Purchase to Pay processes were inconsistent, and there were no documented supply strategies, or any evidence of stakeholder involvement in the approach to supply management.

4.4.9 The “Communications” Element

The communications factor is split into five subcategories (Figure 39) and is the initial position is summarised in Table 29.

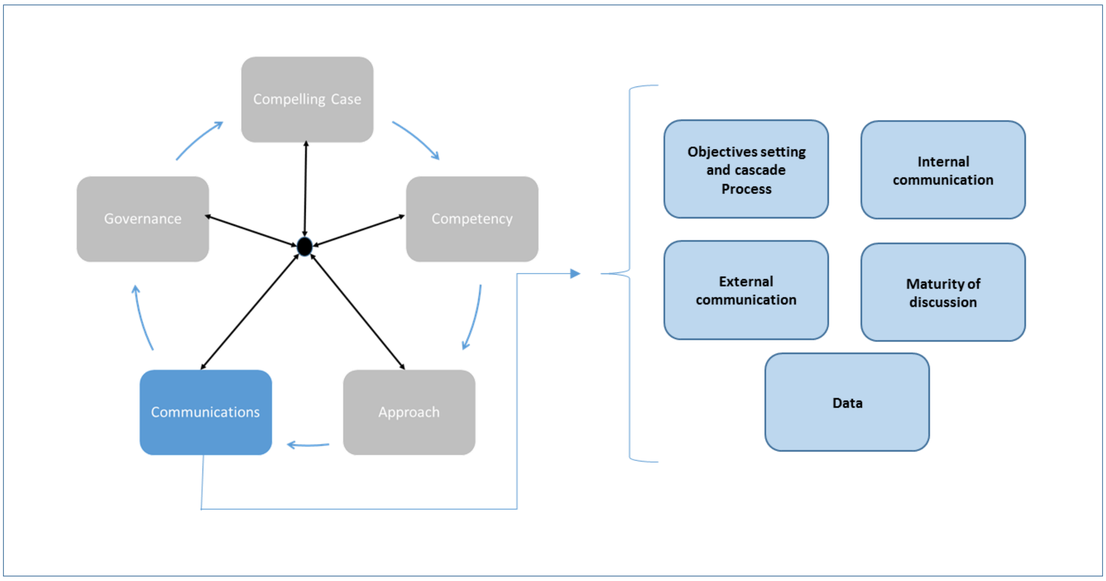


Figure 39 - The Enhanced Model (Communications)

Communications, both internal and external was ad-hoc, and generally seen as an area that should be improved. The objective setting process was inconsistent across divisions, and seen as a tick-box exercise for both procurement management and practitioners.

Item	Ideal position	Chesapeake (Initial)
Objectives setting and cascade Process	• Policy deployment type process in place • Include people and how to influence within policy deployment process (e.g., Policy deployment +)	• Limited objectives management - no policy deployment type process - no alignment with business requirements
Internal communication	• Close collaboration and good knowledge of business needs • Procurement approach communicated to the business (including the reasons why it is important) • Internal PR and good news stories • Perceptions survey	• Communications ad-hoc
External communication	• Communication of Procurement as a differentiator • Supplier perceptions survey	• Procurement not seen as strategic • No supplier feedback
Maturity of discussion	• Movement from "I don't believe the savings" to "Where have the savings gone" • Lessons learned • Procurement savings built into overall budget process • Consequential management (e.g., actions taken from internal / external perceptions survey)	• Significant scepticism regarding the procurement benefits numbers declared
DATA and Data Infrastructure	• A robust and timely process for the consolidation of accurate spend data (including demand and specification information)	• No data management programme in place. Multiple MRP / ERP systems

Table 32 - Communications baseline comparison

4.4.10 The “Governance” Element

The governance factor is split into two subcategories (Figure 40) and is the initial position is summarised in Table 30.

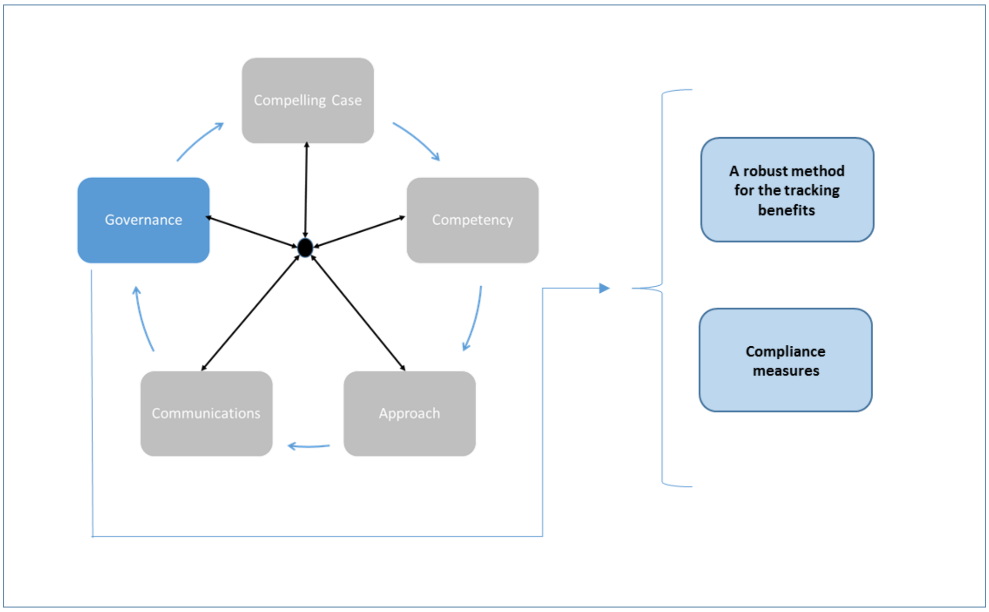


Figure 40 - The Enhanced Model (Governance)

Programme governance was perceived as poor, with significant scepticism over the numbers that were being presented as savings. There was no independent review of savings activity, and no measurement of compliance to the group procurement deals that were available to the business units.

Item	Ideal position	Chesapeake (Initial)
A robust method for the tracking benefits	• Benefits positioned as “Business” rather than “Procurement” benefits • Independent verification of delivered savings • Robust programme management approach to the evolution of ideas through to verified business benefits • Direct link of delivered savings to P+L impact	• Procurement savings / ticket price savings • No independent verification of declared savings • No link to P+L
Compliance measures	• Controls and Measures on the business for compliance against procurement policy	• No compliance measures in place

Table 33 - Governance baseline comparison

4.4.11 Summary of the As-Is

Savings is a key performance indicator for the Chesapeake Packaging procurement initiative, and as a baseline for the intervention, the performance of the transformation activity from the Consultancy Company yielded approximately £1m of benefit. It is impossible to predict what the consultant led programme would have yielded over the subsequent three years, however the issues identified during the As-Is phase meant that the intervention based on the procurement effectiveness model needed to start from a zero base, rather than as a continuation of the existing programme. This was due to a lack of buy-in from senior management, poor perception of the procurement activity, and a lack of strong governance and a general feeling that the programme needed to be re-launched and re-invigorated.

The compelling case for procurement had been made and was accepted by the more senior stakeholders, although there was still an issue further down the organisation, where the message simply had not penetrated

People and people competencies had not been a focus area from either the consultant led programme, or within the prior business activity. This supported the position highlighted by Deloitte (2016), where the majority of organisations were perceived as not having the requisite skills and knowledge from within their procurement talent pool. This position was compounded by not having a robust process for the assessment and development of procurement people, especially focussing on competencies as per Bartram (2005).

The approach taken by the procurement function is an important factor highlighted by Faes et al., (2000). The strategies that were developed were tactical in nature and had a low level of business and customer orientation, resulting in a low level of trust from both within, and external to, the organisation. This issue of trust is highlighted by Brookes, et al., (2007) and Morton, et al., (2004) as an important factor. Supplier relationship management, either from the perspective of the buyer (Kraljic 1983), or the supplier (Steele and Court 1992) were not considered often resulting in the wrong strategy being taken leading to either opportunities being missed, or suppliers being positioned with a high degree of leverage over the organisation.

Communications were generally seen as poor and reactive, whilst active management of the communication process is highlighted by Hult and Nichols (1999) as desirable. They suggest that an ongoing education and communication process is required, neither of which existed within the organisation and was clearly not a strength within the procurement function as a whole. According to Hoegl and Gemuenden (2001) and van Weele & Rozemeijer (1996), purchasing professionals increasingly need to rely on their communication skills, and therefore this lack of competence needed to be addressed as a matter of urgency.

Procurement was often involved at the latter part of the procurement process, especially for the purchase of capital goods. They therefore had limited scope to influence cost, a position identified by Lindgreen (2009). Data availability was poor, with buyers often having to request spend information from suppliers, and this lack of timely and accurate information is highlighted as important according to Kraljic (1983).

Programme governance was not at all robust with no involvement of the CFO or his representatives within the governance process, leading to the situation highlighted by Nixon / KPMG (2012), where the Finance Department does not agree with the numbers that procurement put forward as savings, resulting in a subtle undermining of the procurement programme as a whole.

The existing programme did however achieve senior engagement through category sponsorship, and had raised the profile of procurement within the organisation to a degree. A good platform had been created for the implementation of the procurement effectiveness model resulting in an ideal case study for this research programme.

4.5 Phase 4 - The Intervention (What was done)

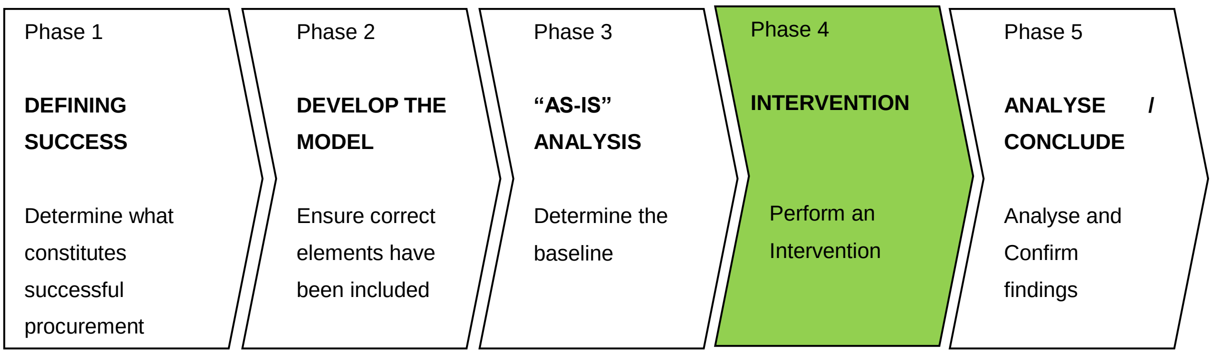


Figure 41 - Intervention

4.5.1 The intervention process

The intervention phase was designed to directly support Objective 3, i.e., to determine the effect of applying the PEM in an industrial application The approach taken to the intervention within Chesapeake Packaging was directly structured around the final procurement effectiveness model shown in Figure 42 below. This model guided the approach although there was still a degree of refinement that was evident along the way. A predominantly pragmatist and phenomenological standpoint was adopted within the action research framework that allowed for a constant review of what worked as compared to what did not. The approach adopted also allowed for adjustments in the application of the model in order to ensure that it was further developed throughout the process.

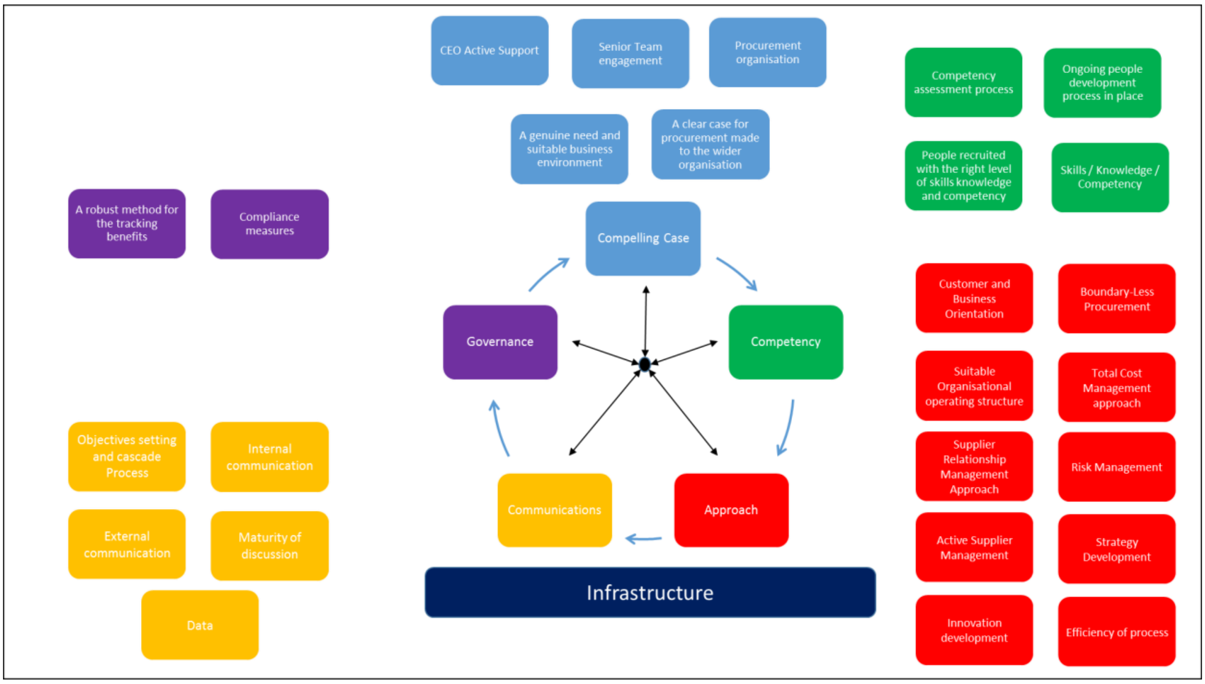


Figure 42 - The Enhanced Procurement Effectiveness Model

The intervention process started at the end of 2011 and commenced with an assessment of the organisation and a review of the Consultancy Company programme. The initial findings and proposal were presented at the Executive Steering Committee (ESC) during a meeting in Melle, Germany in December 2011, (see full presentation in Appendix 6). During this presentation a number of amendments to the Consultancy Company programme were suggested in order to re-inforce areas deemed as important from within the procurement effectiveness model including –

- Greater emphasis on further developing the compelling case and communication to key stakeholders and people of influence throughout the organisation.
- Development of a new and permanent operating structure.
- The repositioning of procurement within the wider enterprise.
- A strong focus on people development in order to enhance relevant skills knowledge and competencies.
- Development of business unit specific category plans, adopting a “total acquisition cost” approach.
- Improvements to communication and engagement process.
- Targeted objectives process, based on business imperatives.
- Much stronger Governance: -
    - Implementation of an independent finance controller to verify savings numbers, (as per the recommendations made from Gershon (2004)).

- Implementation of “White Book” process (see section 4.5.8) for the management of savings projects.

Work on the compelling case was not presented to the ESG, as it was this stakeholder group themselves that needed the compelling case re-enforced, however this was agreed separately with the CEO. The intervention process commenced in earnest after this meeting as the proposal was supported and approval given for the implementation activity.

4.5.2 The perceptions survey

A perceptions survey was undertaken towards the end of the intervention programme in order to verify the effects of implementing the procurement effectiveness model from the perspective of the wider stakeholder group and to support research Objective 3, (e.g., to determine the effect of applying the PEM in an industrial application). The survey served to provide additional information (both qualitative and quantitative) regarding the intervention rather than providing a basis for a full, purely quantitative analysis. The survey was also performed towards the end of the intervention, and in retrospect, it would have been more advantageous to run the survey both at the start, as well as the end, in order to assess the degree of improvement realised. The full survey can be found in Appendix 13. In summary, there were 211 responses split over the operating divisions and countries. The analysis from the perceptions survey has been included within the sections on the individual elements, rather than analysing the results separately.

4.5.3 Confirmation of the Definition of Effective Procurement

The main objective for procurement was defined as improving “enterprise value” which was the key objective of the private equity owners. This translated directly into a primary objective of savings delivery. In addition, the following was included: -

- Generating working capital
- Being perceived by any potential purchaser as being in control of its suppliers and supply chains
- Winning additional business on the back of the procurement function, i.e., procurement as a differentiator

A copy of the formal objectives can be found in Appendix 11.

4.5.4 The "Compelling Case" Element

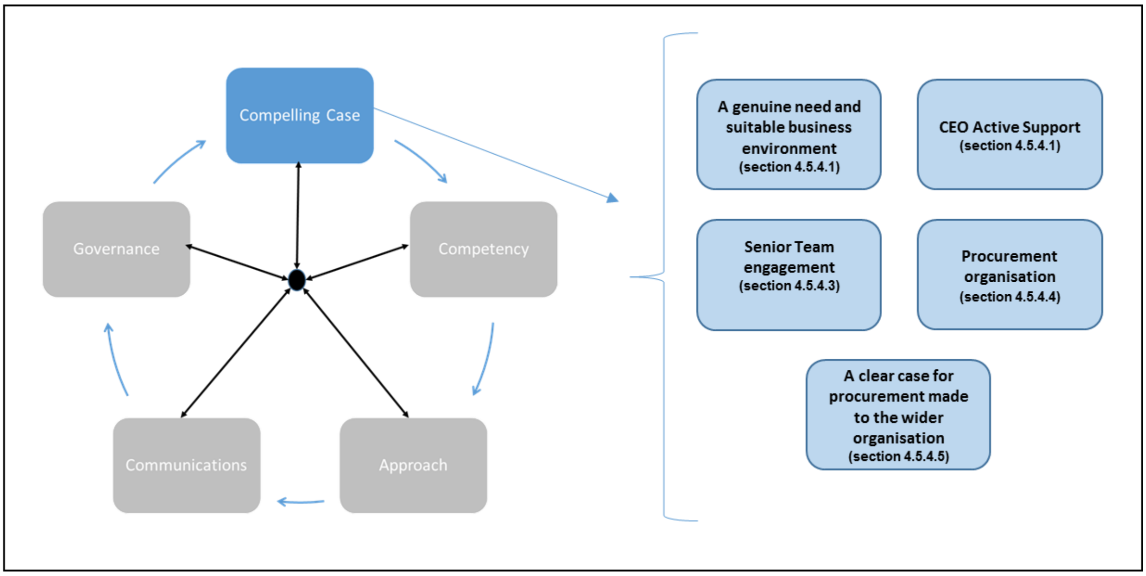


Figure 43 - Procurement Effectiveness Model (with sub-factors from expert sessions) - COMPELLING CASE

4.5.4.1 A genuine need and suitable business environment

The compelling case within Chesapeake was already relatively strong having previously been through a period of Chapter 11 pre-bankruptcy, and with the new CEO pushing for professional procurement to be implemented within the organisation. Additionally, the business environment for Chesapeake Packaging was stable, with a significant portfolio of long standing key customers and suppliers who saw the company as a suitable business partner.

4.5.4.2 CEO Active Support

During the transformation programme a change of CEO occurred, as well as a change of reporting structure on the back of the new CEO being appointed. This change undermined two elements that were deemed important from the model perspective, namely that the function should be reporting to the CEO, and that the CEO should be actively involved in the programme. The new CEO was not as supportive of the programme as his predecessor, although his position did change and two separate incidents appeared to be the catalyst for this improvement - a key customer presentation, and the offering of procurement services to key customers as a value added offering, (and as a way of both defending business and potentially growing it through a new revenue stream). Both situations are detailed below: -

4.5.4.2.1 Key Customer Presentations

The presentation was with one of Chesapeake's largest customers, and a review was requested by them as to how Chesapeake were managing their procurement and supply chain activity. During this presentation, it was clear that the customer was very supportive of the new Chesapeake procurement programme, and the fact that Chesapeake had professional procurement was indicated as a differentiator against Chesapeake's competition. At the end of the presentation, the CEO was asked directly about his support for the function, which he publically gave. It was a turning point in that the CEO had seen first-hand the effect on the positioning of his business in the eyes of a key customer around the procurement function.

4.5.4.2.2 Procurement as a value added service offering

One of the Chesapeake business units was under threat from a key customers looking to use an outsourced procurement company to manage their packaging category spend. This intermediary company was a significant threat to the Chesapeake business as it was a relatively high margin account that had grown predominantly through relationship between the Chesapeake key account manager and his customer. The introduction of an intermediary meant that this high margin business was under threat as the first thing that the intermediary was likely to do would be to benchmark the Chesapeake book of business, thus exposing the high margin that Chesapeake enjoyed. In response, the Chesapeake procurement function had developed a value added offer, which would be an alternative to the customer organisation going to an external provider, and would utilise the Chesapeake procurement processes to buy packaging on behalf of the client but managed by Chesapeake. Ultimately this bid was not successful, however it was down-selected to the final two potential providers and was therefore seen by the CEO as both a viable revenue option and as a mitigation activity against the negative impact on high margin business.

4.5.4.3 Senior Team Engagement

The need for change, and the benefits of the new approach was however stressed within one-to-one meetings with key stakeholders and during subsequent executive steering committee meetings. The key challenge was to gain support from some of the more cynical stakeholders who were targeted in order to ensure that they were fully informed of the programme and that their concerns and requirements were effectively represented in the process. An example of how this was achieved was through the appointment of Regional Purchasing Managers (RPM's), who are there to represent the business unit within any group procurement activity. For the more challenging stakeholders, the choice of regional purchasing manager was carefully made with a key competency attribute of influence and communication figuring highly within the recruitment process.

4.5.4.4 Procurement Organisation

A new procurement organisation was developed that had both a category and a business focus through the development of a hybrid matrix organisation that was able to flex based on business and market requirements.

4.5.4.5 A clear case for procurement made to the wider organisation

The communication of the compelling case to the wider organisation was achieved through the development of a standard procurement presentation that all procurement staff were encouraged to use, and the extensive use of internal communication vehicles such as the company intranet and internal newsletters (see section 4.5.7).

4.5.4.6 Final Assessment - Compelling Case

The final analysis showed a marginal improvement to the compelling case within Chesapeake, as many of the elements were already in place, and the case for procurement was already strong.

Item	Ideal position	Chesapeake (Final)
A genuine need and suitable business environment	• The need for the company to embark on a procurement transformation is known and does not need to be reinforced	• Chesapeake had recently emerged from Chapter 11
CEO Active Support	• CEO actively involved, interested, supportive, communicates widely in support of procurement	• JK replaced by MC who was not as supportive of the procurement function
Senior Team active support	• Senior team supportive and actively supporting the programme	• Some improvement to stakeholder engagement
Procurement organisation	• CPO / head of procurement exists and reports directly into the CEO • Procurement organisation is clear and aligned to business requirements	• CPO position exists but reporting line changed • Clear Procurement organisation developed and implemented
A clear case for procurement made to the wider organisation	• Wider organisation knows and understands the need for the procurement programme and are engaged and actively support	• Improved communications with the wider organisation

Table 34 - Compelling Case - Final Position

Improvements had been made in terms of communication and stakeholder engagement, however the change of CEO, and the change of the reporting lines for the procurement function were both significant negative impacts to the overall programme, which were mitigated in due course.

4.5.5 The "Competency" Element

The competency element of the model looks at skills and knowledge as well as competency, and ensures that there is an effective process for the initial assessment and ongoing development of people within the procurement function.

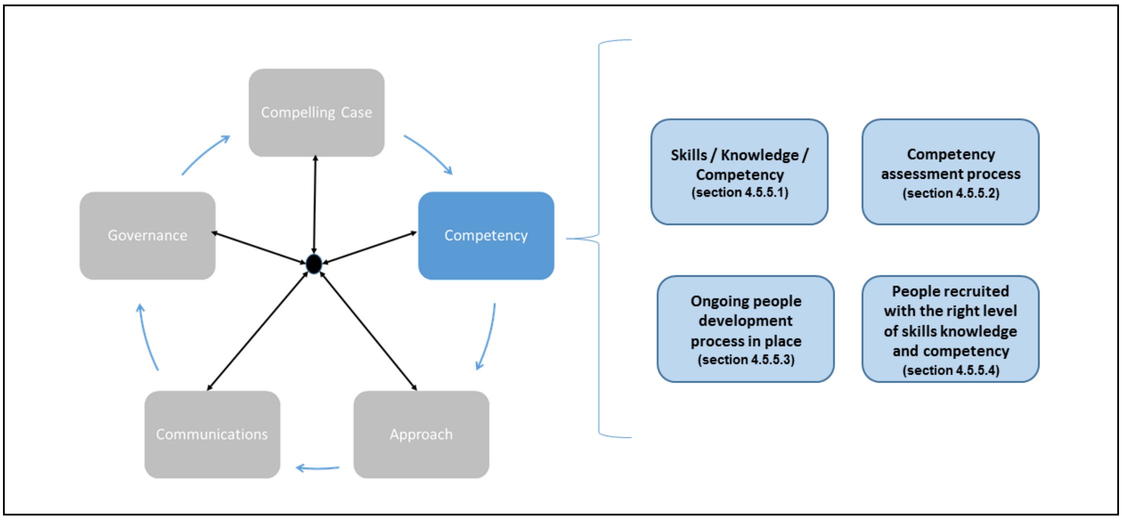


Figure 44 - Procurement Effectiveness Model (with sub-factors) - COMPETENCY

The competency dimension was seen as an area of significant weakness at the start of the programme. For this reason, a structured approach was taken to the initial assessment, then the ongoing development of the people within procurement. The same process was adopted for the recruitment of new team members so that they could both be assessed against the existing standard, and that the recruitment process could be targeted at filling the competency based gaps identified within the existing team.

4.5.5.1 Skills / Knowledge / Competency

The following competencies were used as a framework for the assessment and development programme and were developed from both the expert sessions and following the As-Is / initial review of Chesapeake Packaging: -

- **Drive for Excellence** - This competency focuses on having the drive to achieve excellence and superior results. At a lower level this is about showing initiative, at a higher level it is about doing what it takes to get the job done and to overcome obstacles. Makes sound recommendations with limited time and information, is action oriented and moves quickly to implement decisions. Pushes themselves and others for maximum results, is not hindered by setbacks and can be relied on for results. Consistently meets or exceeds time and value-adding expectations. Feeds back on results achieved versus plan in a transparent manner and links to financial performance.
- **Influence and Communication** - The drive and ability to influence individuals and events by identifying and building relationships with those who are important to achieving required results. This competency focuses on developing strategies which effect changes in others with resultant benefits to the organisation. At lower levels this is more about good communication skills and effective negotiation. At

the higher level, individuals will identify key players and use a range of styles to persuade and influence.

- **Concern for Order and Detail** - An underlying drive to reduce uncertainty by understanding the detailed aspects of programme or projects and ensuring that there are no loose ends. This competency focuses on the planning and organising aspects of project or programme management. The most effective programme or project managers will have an overall map of the projects and will be clear about what needs to be done, and will have enough understanding to ensure that no detail is neglected.
- **Commercial Intuition -** The ability to process emotional and factual information about customers, suppliers and the market, and use it to gain advantage. This competency focuses on the balance between intellectual analysis and 'gut feel' in making decisions. The most effective procurement person will use insight, intuition and 'streetwise' elements in making judgements as well as factual information and take risks if they believe that they are warranted.
- **Problem Solving and Decision Making** - The ability to absorb quickly and analyse lots of data and use it to inform decisions. This competency focuses on having the ability to make timely decisions and/or put forward recommendations based upon sound analysis of problems, trends and data. Structures approaches to resolving complex problems. Has good judgment as to most effective approach to use. Initiates needed changes in direction. Demonstrates a rapid understanding of situations and becomes quickly conversant in the issues and opportunities for improvement. Leads the team in formulating, articulating and prioritising key conclusions. Develops solid sets of practical recommendations. Prioritises recommendations based on ease of implementation and expected impact on business. In Chesapeake this means having examples of delivering solutions following a structured analysis of the problem.
- **Cultural Awareness** - Recognition that different cultural norms affect the way people approach different situations. The cultural awareness competency indicates a high degree of emotional intelligence in terms of understanding the effect that an individual has in different cultures and in different circumstances. The ability to adapt their style and approach in order to achieve the desired outcome within the different culture is therefore key. Different cultures can be evident in different plants, business units as well as countries and regions.
- **Project and Programme Management** - This competency relates to the approach taken in order to manage specific project based activity. It is the ability to take a structured and planned approach, where progress is monitored through the achievement of milestones, and key performance indicators.

- **Leadership, Management, Team-working and Self Awareness - Self Confidence** - Effective purchasing involves the understanding and managing of the total cost of acquisition, and not just the headline ticket price within a transaction. For this reason, a key competency is the ability to lead a team of people in order to ensure that Chesapeake achieve the best value in terms of quality, cost and delivery. This competency relates to the ability to lead teams, to be part of a team, and to have the self-confidence to influence the team in a positive way in order to improve the total acquisition cost. Additionally, it also relates to emotional intelligence in terms of the awareness of oneself on the other members of the team.
- **Customer Orientation** - A willingness to exert maximum effort to discover and meet customer's needs, serving both internal and external customers. This competency focuses on having the willingness and energy to proactively meet customer needs. It involves using technical and non-technical signals to properly 'read' customer needs, ensure satisfaction and remain commercially viable.
- **Managing Stress and Pressure** - The ability to maintain stamina under continuing stress. This competency focuses on the ability to keep ones' emotions under control and restrain negative actions when provoked.

4.5.5.2 Competency assessment process

A structured people assessment process was created in order to assess and develop the competencies identified as important from within the expert sessions. These competencies were assessed within a full competency based assessment / development centre process for both internal and external candidates in some cases. No assessment process existed prior to this initiative, so a number of training sessions for HR and reviewers were created to ensure that there was sufficient skills and knowledge in the assessment process. The following are the key elements of the process: -

- Full Group exercise 1 - determining level of objectives focus
- Group brainstorming event designed to identify the level of focus on objectives and to determine the dynamic within the current group. Phase 1 took the form of a discussion regarding roles and responsibilities, and Phase 2 followed a SWOT format designed to get potential blocking issues and historic "baggage" on the table and to build a rapport with the team.
- The assessment / development process was introduced during this activity
- The skills and knowledge profile was discussed and developed according to the specific requirements. In addition, this element was designed to attain buy-in to the skills and knowledge profiling activity later on in the process
- Psychometric testing

- All candidates were requested to do psychometric testing as part of the process, however this was not compulsory and no participant was forced to comply. The overall assessment and development process was positioned as a positive initiative that would lead to the opportunity for a higher degree of development activity within the group
- Verbal and Numeric reasoning tests administered through SHL were performed and assessed against General Population / Graduate Managers
- Tests were typically performed over the internet
- Output determined the candidates position against either general population or graduate managers depending on the population comparison and is shown by a percentile score - there was no “pass” or “fail”
- Personality profiling
- All candidates were requested to do the SHL OPQ personality profile in order to determine self-perception and operating preferences
- Assessment / Development Centre
- This consisted of a one day off site workshop for between 6 - 8 people on each session and consists of the following elements
    a. Group problem solving exercise
    b. Written exercise
    c. Delegate presentation of key challenges
    d. Competency based interview
    e. Feedback of OPQ profile and psychometric tests
    f. Skills and knowledge self-assessment profiling based on the following assessment criteria
        i. I - Some knowledge or awareness
        ii. L - Learning within the subject area
        iii. U - Can perform activity unaided but still requires support
        iv. □ - Fully competent
        v. ⊡ - Subject expert / Can teach
    g. Discussion over skills and knowledge self-assessment
- Summary of group profile and skills / knowledge and competencies against competency profile
- Summary of group dynamic, profile, gaps and development options
- Development of “Academy” process engaging with the subject matter experts
- Develop individual development action plans
- Determine team development roadmap / improvement plan

The output from the process provided a clear and objective assessment of the current team and was used to initiate an individual development plan for each team member.

The competency profile was determined during the expert sessions and a number of new assertions or observations needed to be tested in order to ensure that the competency based approach is likely to result in improved performance.

These observations are detailed below: -

- Observation 7 - That the individual's appraisal score correlates to the savings delivered, (i.e., that the people who achieve a higher rating on their appraisal deliver higher savings)
- Observation 8 - There is a positive correlation between the competency profile and the appraisal score
- Observation 9 - That there is a positive correlation between competency and delivered savings
- Observation 10 - That there is a relationship between reasoning ability (verbal and numeric), and appraisal
- Observation 11 - There is a relationship between salary and performance
- Observation 12 - A performance related bonus scheme would increase performance

Observation 7 needed to be ascertained in order to assess whether the propensity for good savings performance can be judged by a good result in the appraisal. Typically, the appraisal process would assess a number of issues, including savings performance so it would also be a measure as to whether the appraisal was sufficiently weighted to the main objective as stated for the Chesapeake Packaging case, i.e., savings.

Observation 8 and Observation 9 both directly related to the competency profile that was determined through the expert sessions, and to which competencies correlate to good appraisal / good savings performance. This facilitated the refining of the competency element of the model to show a higher correlation to savings performance.

Observation 10 tests the assumption that verbal and numeric reasoning are good indicators of performance, and the outcome was used to influence the competency element in relation to the testing regime adopted within the case.

Observation 11 and 12 were associated to the question of overall effectiveness, and were established to provide additional information regarding whether salary and bonus scheme have an effect on performance.

The results of the testing of Observation 7 to Observation 10 can be found in section 4.6.4.

4.5.5.2.1 Results of Team Assessment process

The results from the assessment process are shown in Figure 45. The subjects highlighted in red were exited from the business due to a number of factors including the assessment process. The subjects highlighted in green were existing employees, and the ones highlighted in yellow, were new recruits into the team.

	Drive for Excellence	Influence and Communication	Concern for Order and Detail	Commercial Intuition	Problem solving and Decision making + Project Manageemnt	Cultural Awareness	Leadership	Team Working	Customer Orientation	Stress and Pressure	NMG %ile	VMG %ile
Proc 1	1.5	2	1	3	2	2	1	2	1	3	13	89
Proc 2	2.5	2	2	3	2	2	2	2	2	2	42	51
Proc 3	4	3	4	2	2	1	2	2	2	2	54	99
Proc 4	4	2.5	4	2	2	1	2	2	2	3	83	99
Proc 5	1.5	2	1.5	3	2	1	1	2	2	2	45	79
Proc 6	2	2	2	2	2	1	1	2	2	3	72	89
Proc 7	2	2	2	1	1	1	2	1	2	2	63	92
Proc 8	2	2	2.5	1	2	3	2	2	2	3	49	90
Proc 9	1	1	1	2	1	1	1	2	3	3	52	60
Proc 10	1	1	1	3	2	1	1	2	2	2	1	49
Proc 11	3	3	4	3	3	3	3	2	3	3	44	90
Proc 12	3	3.5	4	3	3	2	2	3	3	2	25	67
Proc 13	3	4	3	3	4	4	4	3	3	3	35	76
Proc 14	4	3	4	3	3	2	3	2	3	2	45	85
Proc 15	3	4	3	4	3	3	3	3	3	3	n/a	n/a
Proc 16	2	2	2	3	2	2	2	2	3	3	72	99
Proc 17	4	4	4	4	3	3	3	3	3	3	26	70
Proc 18	4	3	3	4	3	4	3	4	3	3	48	34
Proc 19	2.5	3	3	3	3	2	2	3	3	3	n/a	n/a
Proc 20	3.5	4	4	4	4	3	3	3	4	4	n/a	n/a
Proc 21	2	3	2.5	2	3	3	2	3	3	3	n/a	n/a
Proc 22	2	3	2.5	3	3	3	3	2	4	3	n/a	n/a
Proc 23	2	3	3	4	3	3	3	3	4	3	n/a	n/a
Proc 24	3	3	3.5	3	3	2	2	4	3	2	n/a	n/a

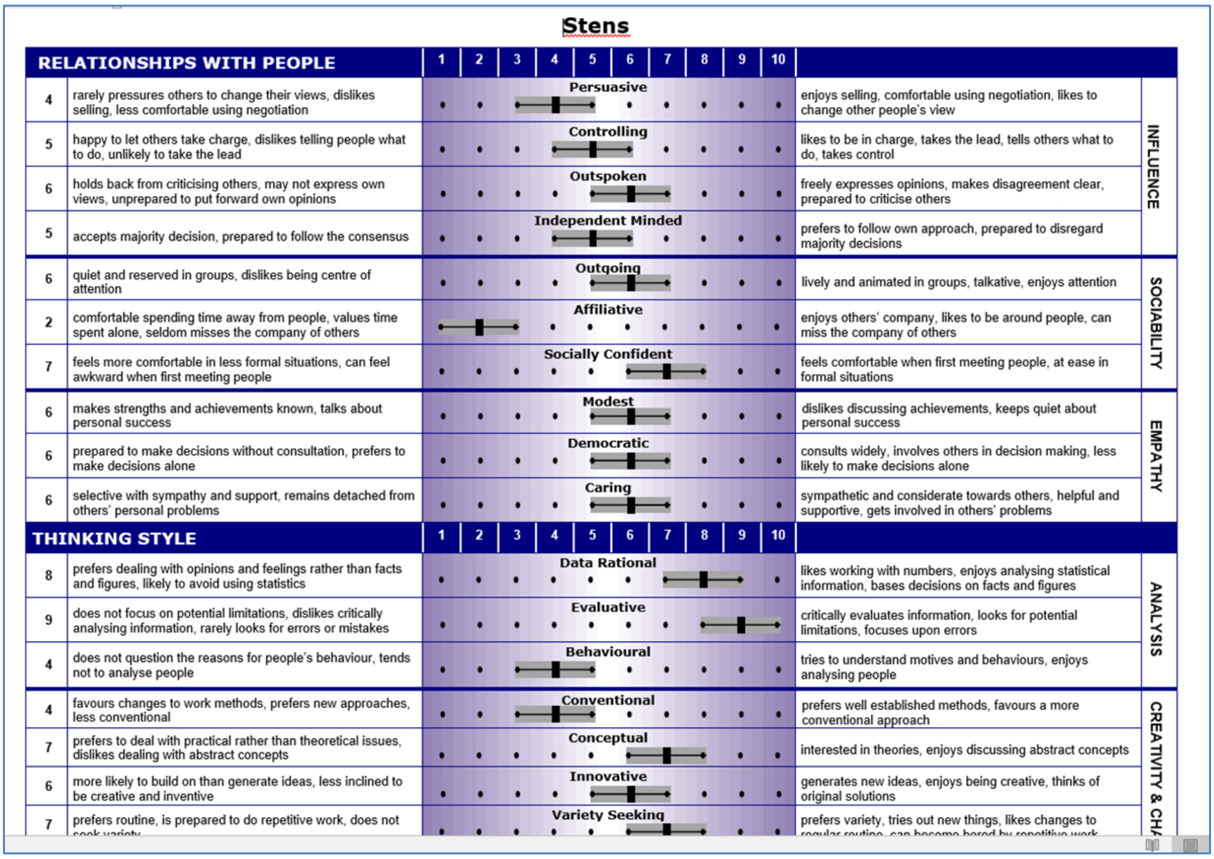
Figure 45 - People Competency results

The assessment score was based on the following: -

- 1 = Unacceptable for the position
- 2 = Acceptable for the position
- 3 = Good level of competency for the position
- 4 = Excellent

Increments of 0.5 were used to show borderline performance. Where a candidate scored a 1, then typically development activity was offered within the procurement academy process (see section 4.5.5.3).

Figure 46 shows an example of a section of the OPQ profile output, and Figure 47 shows a summary from the procurement group. The output shows a score from a scale of 1 to 10, based on the level of preference determined during the online interview process. It is not the intention of this study to critique OPQ process, as there has been much written regarding its validity (e.g., Reason & Bradbury, 2001), however the output was used to determine whether there were certain traits that could be identified and attributed to high performing individuals in order to develop an assessment methodology that was able to focus in on the key personality attributes. The attributes highlighted in yellow indicate the elements that were common in high performing individuals.



Stens

RELATIONSHIPS WITH PEOPLE		1 2 3 4 5 6 7 8 9 10		
4	rarely pressures others to change their views, dislikes selling, less comfortable using negotiation	Persuasive	enjoys selling, comfortable using negotiation, likes to change other people's view	INFLUENCE
5	happy to let others take charge, dislikes telling people what to do, unlikely to take the lead	Controlling	likes to be in charge, takes the lead, tells others what to do, takes control	
6	holds back from criticising others, may not express own views, unprepared to put forward own opinions	Outspoken	freely expresses opinions, makes disagreement clear, prepared to criticise others	
5	accepts majority decision, prepared to follow the consensus	Independent Minded	prefers to follow own approach, prepared to disregard majority decisions	
6	quiet and reserved in groups, dislikes being centre of attention	Outgoing	lively and animated in groups, talkative, enjoys attention	SOCIABILITY
2	comfortable spending time away from people, values time spent alone, seldom misses the company of others	Affiliative	enjoys others' company, likes to be around people, can miss the company of others	
7	feels more comfortable in less formal situations, can feel awkward when first meeting people	Socially Confident	feels comfortable when first meeting people, at ease in formal situations	
6	makes strengths and achievements known, talks about personal success	Modest	dislikes discussing achievements, keeps quiet about personal success	EMPATHY
6	prepared to make decisions without consultation, prefers to make decisions alone	Democratic	consults widely, involves others in decision making, less likely to make decisions alone	
6	selective with sympathy and support, remains detached from others' personal problems	Caring	sympathetic and considerate towards others, helpful and supportive, gets involved in others' problems	
THINKING STYLE		1 2 3 4 5 6 7 8 9 10		
8	prefers dealing with opinions and feelings rather than facts and figures, likely to avoid using statistics	Data Rational	likes working with numbers, enjoys analysing statistical information, bases decisions on facts and figures	ANALYSIS
9	does not focus on potential limitations, dislikes critically analysing information, rarely looks for errors or mistakes	Evaluative	critically evaluates information, looks for potential limitations, focuses upon errors	
4	does not question the reasons for people's behaviour, tends not to analyse people	Behavioural	tries to understand motives and behaviours, enjoys analysing people	
4	favours changes to work methods, prefers new approaches, less conventional	Conventional	prefers well established methods, favours a more conventional approach	CREATIVITY & CHA
7	prefers to deal with practical rather than theoretical issues, dislikes dealing with abstract concepts	Conceptual	interested in theories, enjoys discussing abstract concepts	
6	more likely to build on than generate ideas, less inclined to be creative and inventive	Innovative	generates new ideas, enjoys being creative, thinks of original solutions	
7	prefers routine, is prepared to do repetitive work, does not	Variety Seeking	prefers variety, tries out new things, likes changes to	

Figure 46 - OPQ output (Extract)

	RELATIONSHIPS WITH PEOPLE										THINKING STYLE												FEELINGS AND EMOTIONS										
	Influence				Sociability			Empathy			Analysis			Creativity and Change						Structure									Dynamism				
	Persuasive	Controlling	Outspoken	Independent Minded	Outgoing	affiliative	Socially confident	modest	democratic	caring	Data rational	Evaluative	Behavioural	Conventional	Conceptual	innovatibe	Variety seeking	adaptable	forward thinking	detail conscious	conscientious	Rule Following	Relaxed	Worrying	Tough Minded	Optimistic	Trusting	Emotionally Controlled	Vigorous	Competitive	Achieving	Decisive	consistancy
Proc 1	5	5	8	7	10	5	6	4	5	2	5	6	4	5	6	6	8	7	2	7	4	3	8	3	7	4	4	8	6	7	5	6	7
Proc 2	5	5	1	3	6	8	8	6	8	8	10	6	5	5	5	5	6	6	7	6	4	6	3	6	2	6	5	7	5	6	7	4	9
Proc 3	4	5	6	5	6	2	7	6	6	6	8	9	4	4	7	6	7	5	8	10	8	8	5	4	5	7	3	8	6	7	8	4	9
Proc 4	5	6	4	5	6	6	5	5	7	5	7	7	6	6	5	6	6	6	7	7	5	8	6	6	6	5	5	6	6	3	7	5	6
Proc 5	3	4	1	4	3	4	5	10	5	5	7	5	5	8	6	3	5	8	7	9	5	8	8	4	6	6	7	10	7	4	4	5	8
Proc 6	7	4	5	4	5	4	7	6	6	6	10	6	5	5	6	5	4	3	7	6	6	6	9	7	9	6	6	6	7	3	5	6	8
Proc 7	5	7	4	6	6	6	6	5	5	5	9	7	7	4	9	5	6	9	8	8	6	5	6	3	5	6	3	7	5	7	9	6	7
Proc 8	7	5	3	7	4	5	5	6	6	5	6	7	7	5	7	5	6	5	7	7	7	4	4	6	6	6	5	6	7	5	7	6	8
Proc 9	6	4	6	5	6	4	6	6	5	3	10	3	4	8	5	4	3	4	5	5	5	8	8	6	5	5	5	6	7	6	6	4	6
Proc 10	8	6	8	3	7	5	6	4	7	5	7	6	6	5	6	5	6	4	6	6	5	4	5	6	5	6	6	6	5	6	7	7	6
Proc 11	4	7	4	7	5	5	4	6	5	5	8	4	5	7	5	5	5	7	4	7	6	4	1	10	3	4	5	3	4	6	5	4	7
Proc 12	5	5	6	5	6	5	7	7	5	7	5	4	6	8	6	4	6	6	3	9	6	8	5	4	7	4	3	7	7	1	2	4	7
Proc 18	6	10	6	7	8	7	7	6	4	3	6	4	4	8	4	6	7	7	7	6	7	7	5	3	4	3	3	6	7	6	4	7	5

Figure 47 - People OPC Results

4.5.5.3 Ongoing people development process in place - The Procurement Academy

Following numerous internal team reviews and the group assessments, it was clear that there was a need to improve the skills and knowledge of the group as a whole. It was felt that there was a high degree of knowledge in specific areas within individuals, although this information was not systematically shared. Following the principles of a "learning organisation" (McHugh et al.,1998), it was decided, as part of an ongoing development programme, to identify "subject matter experts", who were then tasked with developing training "modules" that could be delivered to the rest of the group. A sample of the output is shown in Figure 48.

Area	Capability	Attribute	Description	Nme 1	Name 2	Name 3	Name 4	Name 5	Name 6
Site Procurment	Purchase Orders	Management	Fully understands the Purchase Order process, can raise orders and progress chase	⊔	☐	☐	⊡	⊡	☐
	Vendor File	Creation	Can manage the process for Supplier information	I	☐	☐	☐	☐	☐
		Maintenance	Can manage the supplier information files within MRP systems	I	⊔	☐	L	I	I
	Inventory	Management	can manage working capital as related to material socks, stocking rules MOQ's etc	I	L	☐	L	L	⊔
	Expediting	Management	Can demonstrate a range of strategies to improve on supplier commitment times or to crash lead times where materials are urgently required	I	L	☐	☐	☐	☐
	Tendering	RFx Management	Can effectively manage the process for Request for information, Request for Quotation, Request for Pricing, Price benchmarking	⊡	L	☐	☐	⊔	☐
	Contract management	Contract Management	Able to effectively negotiate and develop contracts that are beneficial for the organisation	⊡	⊔	⊔	⊔	⊔	☐
		Establishing and aligning SLAs	Identifies appropriate SLAs with business and agrees reporting templates and process with suppliers.	⊡	I	⊔	⊔	I	I
		Managing agreement to contract	Identifies legal "watch-outs" for the company. Knows and works within the relevant legislation and understand the company's contract approach.	⊡	L	⊔	⊔	⊔	⊔
		Ongoing Supplier Management	Establishes an ongoing management approach and associated processes that is agreed and adhered by the business.	⊡	L	L	⊔	⊔	L

I Has Information / Basic Knowledge L Learning ⊔ Can perform "Un-Aided" but may require some support ☐ Fully Competent ⊡ Can Teach

Figure 48 - Skills and Knowledge Assessment - Extract

A full list of training modules developed within the procurement academy can be found in Appendix 8. Following this rigorous approach to people assessment and development, their performance was mapped against appraisals and benefits delivery in order to identify correlations between the elements of the assessment process and their performance within the role. The results of this analysis is shown in section 4.6.3.

4.5.5.4 People recruited with the right level of skills knowledge and competency

As part of the overall assessment and development programme it was clear that there was indeed a skills gap that needed to be addressed through the recruitment of external candidates. The assessment process used on the external candidates was the same as the one used on the internal procurement staff enabling a robust comparison of skills, knowledge and competencies of external candidates against the existing group.

4.5.5.5 People performance

Each category manager was set a savings target as part of their overall objectives setting process. Appendix 9 shows this performance over the final 12 months of activity. Savings targets were set as a percentage of spend, and then a complexity factor applied in order to address factors such as experience of category manager and complexity of category etc.

4.5.5.6 The introduction of performance related bonus scheme

During the third year of the transformation programme, a performance related bonus scheme was introduced within the procurement department. Previously a bonus scheme relating to company performance was in place that took account (in a limited way) of an individual's overall performance as measured by the appraisal process, although the bonus pay-out was predominantly determined by the company performance. It was clear that the procurement practitioners within Chesapeake Packaging did not see a correlation between their individual performance and the eventual bonus pay-out. For this reason, a new bonus scheme was introduced that was more aligned to the existing sales force bonus scheme which was related to individual sales performance against target. Within procurement, the bonus scheme introduced was based on their individual savings in isolation of the company performance. In this way, the category managers could see a direct correlation between their performance and the bonus paid.

Performance and remuneration was identified by Hult et al., (1998), and comments that the use of contingent rewards where employees are only compensated for their performance tends to lead to short-term accomplishments and outcome-based reward valences (Seltzer & Bass, 1990), subsequently leading to low motivation, poor communication, lack of commitment, and conflict (Etgar, 1977; Schul, et al., 1983). This was closely monitored and the results are shown in section 4.6.3.2.

4.5.5.7 Final assessment - Competency

Item	Ideal position	Chesapeake
Competency assessment process	• Formal assessment process linking the people competency set to the requirements of the business	• Full assessment programme developed and implemented
People recruited with the right level of skills knowledge and competency	• Full organisation of people with the correct levels of skills knowledge and competency	• Better although more work needed
Ongoing people development process in place	• Active development programme exists that focuses on skills knowledge and competencies	• Development programme developed but not fully implemented
Skills / Knowledge / Competency	• Project Management • Data Analysis and manipulation • Negotiation Skills • Networking • Contract Management • Procurement toolbox • Technical understanding • Drive and Determination • Influence and Communication • Concern for Order and Detail • Emotional intelligence • Dealing with stress and pressure	• Academy process developed, although implementation still immature

Table 35 - Competency (Final Position)

People and people development was a major element of the intervention process, as that this was an area of weakness identified through the application of the procurement effectiveness model and therefore needed specific attention.

4.5.6 The “Approach” Element

The approach factor received a significant amount of focus during the intervention, as it was initially identified as an area that required improvement.

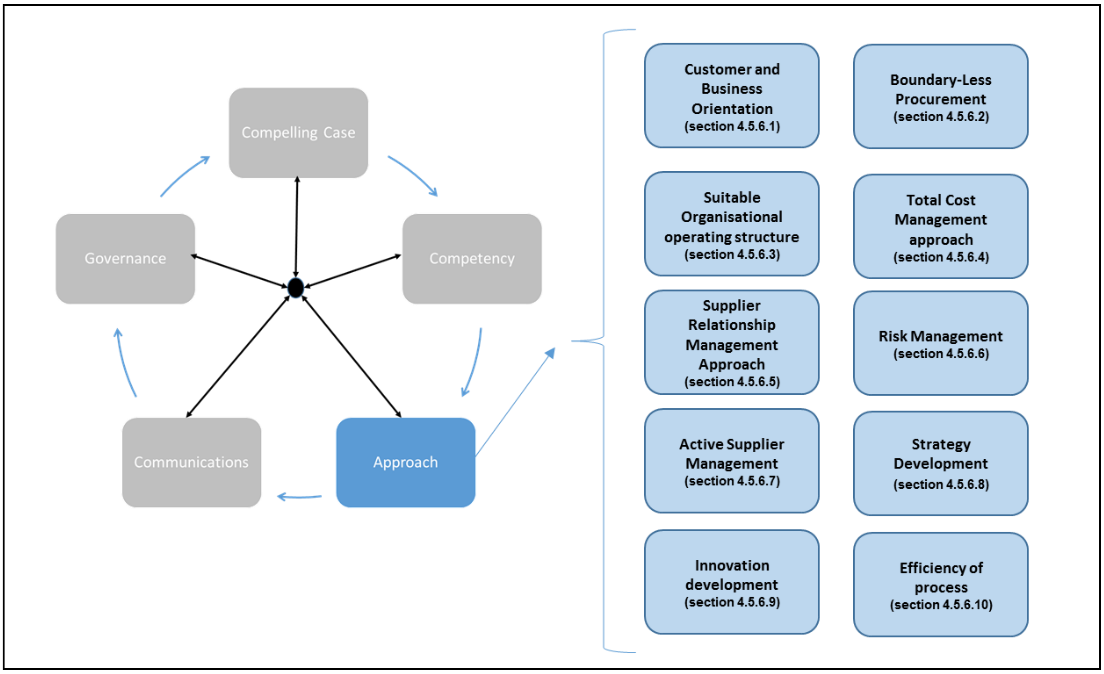


Figure 49 - Procurement Effectiveness Model (with sub-factors) - APPROACH

4.5.6.1 Customer and Business Orientation

In general, there was a low level of consideration to both the end customer and the requirements of the business. This was addressed through the refocussing of the procurement activity through the implementation of specific objectives (see Appendix 11), and the development of a customer and business focused category management strategy process (see section 4.5.6.8). An example of this was the procurement initiative on supply chain management in conjunction with a key customer and key supplier where the end to end supply process was analysed and improved as part of a collaborative initiative. This programme was initiated and managed by the procurement function and ultimately served to lower costs and increase level of business to Chesapeake Packaging.

4.5.6.2 Boundary-Less Procurement - End to End Supply Chain Management

The concept of end-to-end supply chain management was an important part of the approach, and as such a model was created that encapsulated this (Figure 50). In addition, two IT based systems were developed; an up-front demand capture systems called Daylight, and a downstream demand management system called Holistic. Both systems together facilitated a full end-to-end approach to be taken to the management of supply chains. Additionally, Daylight was positioned as a key enabler for customers in order to develop a virtual consignment stock approach that was a clear differentiator for Chesapeake against its competitors.

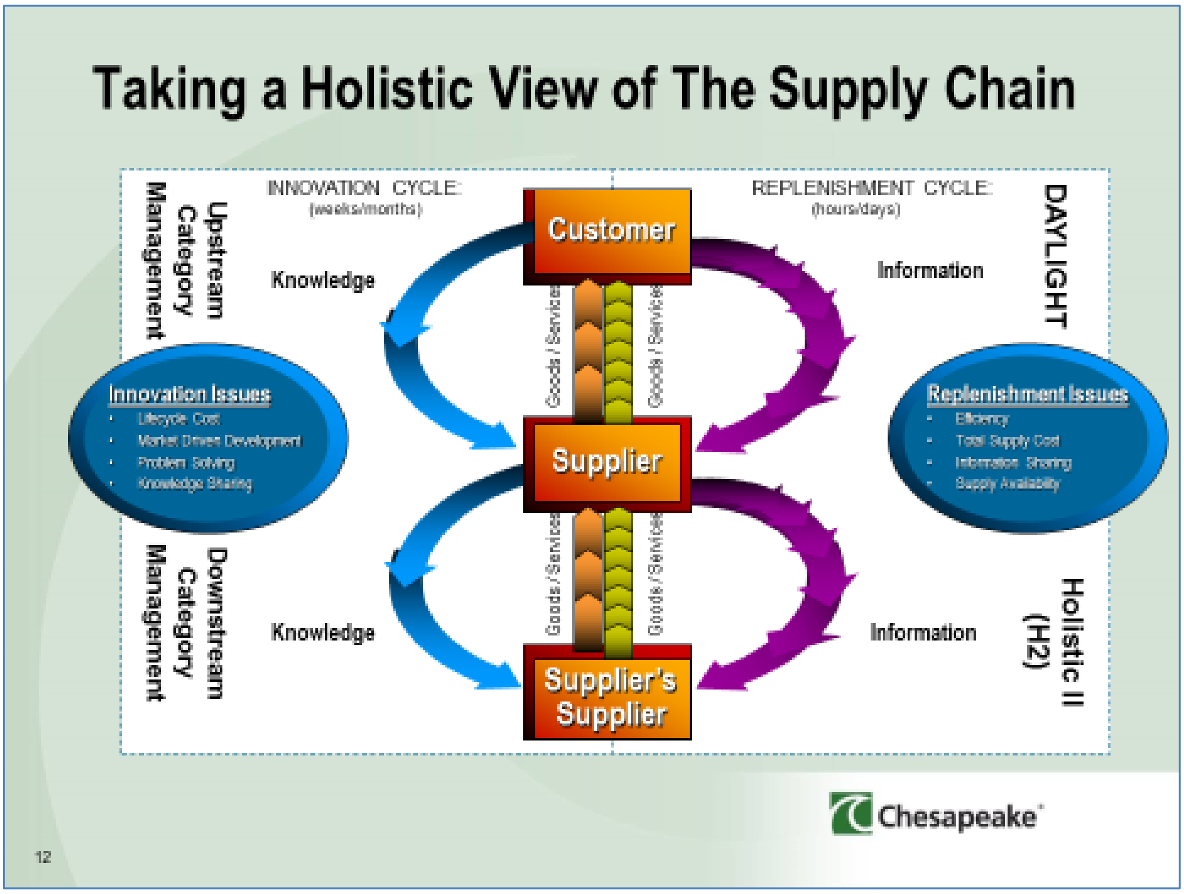


Figure 50 - End to End Supply Chain Management

4.5.6.3 Suitable Organisational operating structure

A matrix organisation structure was implemented that allowed a flexing of activity between centrally managed projects, and activity that was managed within the business unit. The organisational concept is shown in Figure 51 below, and was presented to the executive steering committee meeting (see Appendix 6).

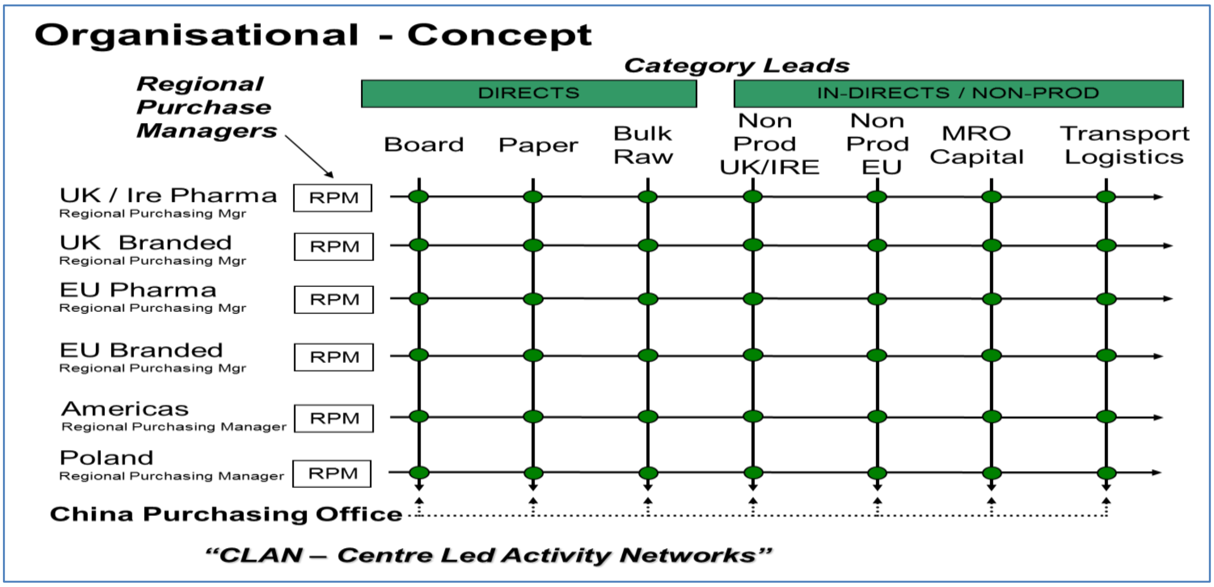


Figure 51 - Organisation structure concept

4.5.6.4 Total Cost Management

The concept of total acquisition cost (Lindholm and Suomala, 2004), was introduced and a model (Figure 52), was developed in order to ensure that the procurement team followed a consistent approach to category management. The model was adapted from similar models used in Lucas Aerospace and Exide Technologies and was seen as a useful tool for explaining the approach both within the procurement team, and with external stakeholders. This Total Acquisition Cost (TAC) model had the main Chesapeake procurement objectives at the centre i.e., Quality, Cost, Delivery, Cash and Innovation, and identified three main strategies namely; “Demand and Specification Management”, “Supply Chain Management” and the “Cost of Doing Business”. Each of the three strategies were further broken down into the component parts. The category manager would use this model as a basis for their thinking in order to ensure that the total cost was considered within any approach that they identified, as this model was designed to be used as a prompter of ideas rather than as a checklist process.

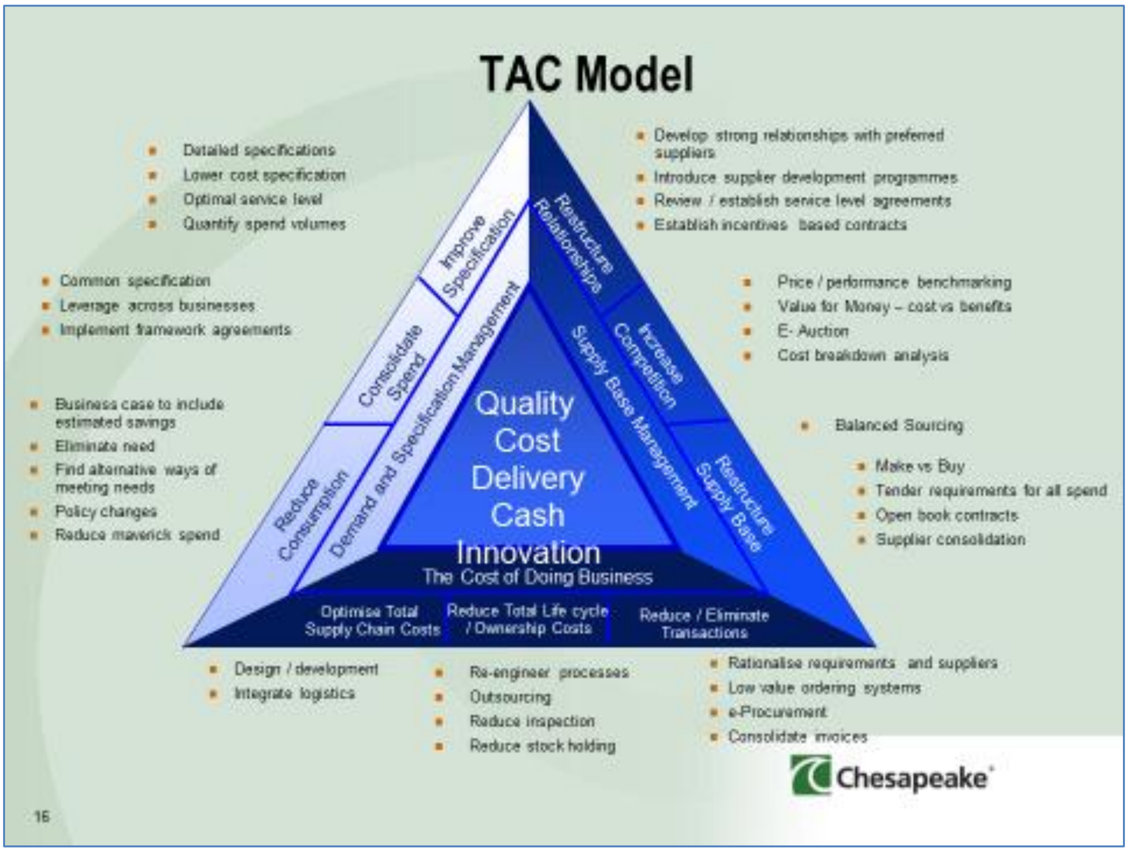


Figure 52 - The Total Acquisition Cost Model

4.5.6.5 Supplier Relationship Management Approach

Supplier relationship management was a key focus area, as the initial review showed that these concepts were not understood by either the internal or external staff, and that basic errors were being made in relation to this lack of understanding. The model adopted used both the Kraljic (1983), portfolio approach, and the Steel and Court (1996), customer perception model (Figure 53), in order to fully understand the supply chain dynamic at play from the perspective of both the customer and the supplier. The combining of both Kraljic (1983), and Steele and Court (1992), is a development that has not been extensively explored within the literature to date, and is therefore a potential for the generation of new knowledge.

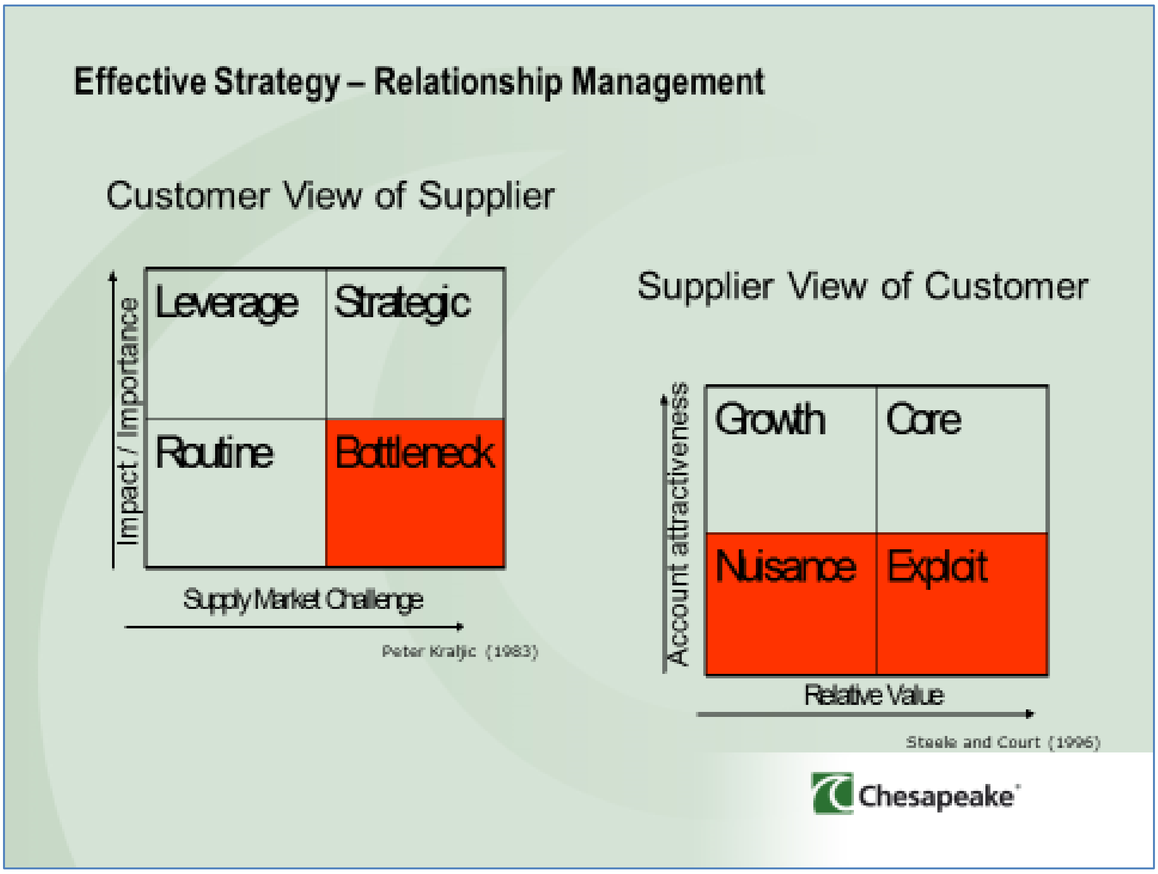


Figure 53 - Supplier Relationship Management

This impacted both the approach taken, and the language used in order to develop a much more robust way of working with suppliers. One key raw material supplier was positioned within the "strategic" part of the Kraljic analysis and the "core" part of the Steele and Court analysis resulting in a new approach being taken with this supplier. Following extensive training and development with the supplier, they understood the concept and were prepared to "invest" in the Chesapeake account resulting in a research and development resource being assigned on a full time basis, and whose job was to identify innovative solutions that would result in improved levels of profitability for both companies.

The Kraljic model was also used at a category level in order to determine the supply dynamic and an example can be found in Figure 54 below.

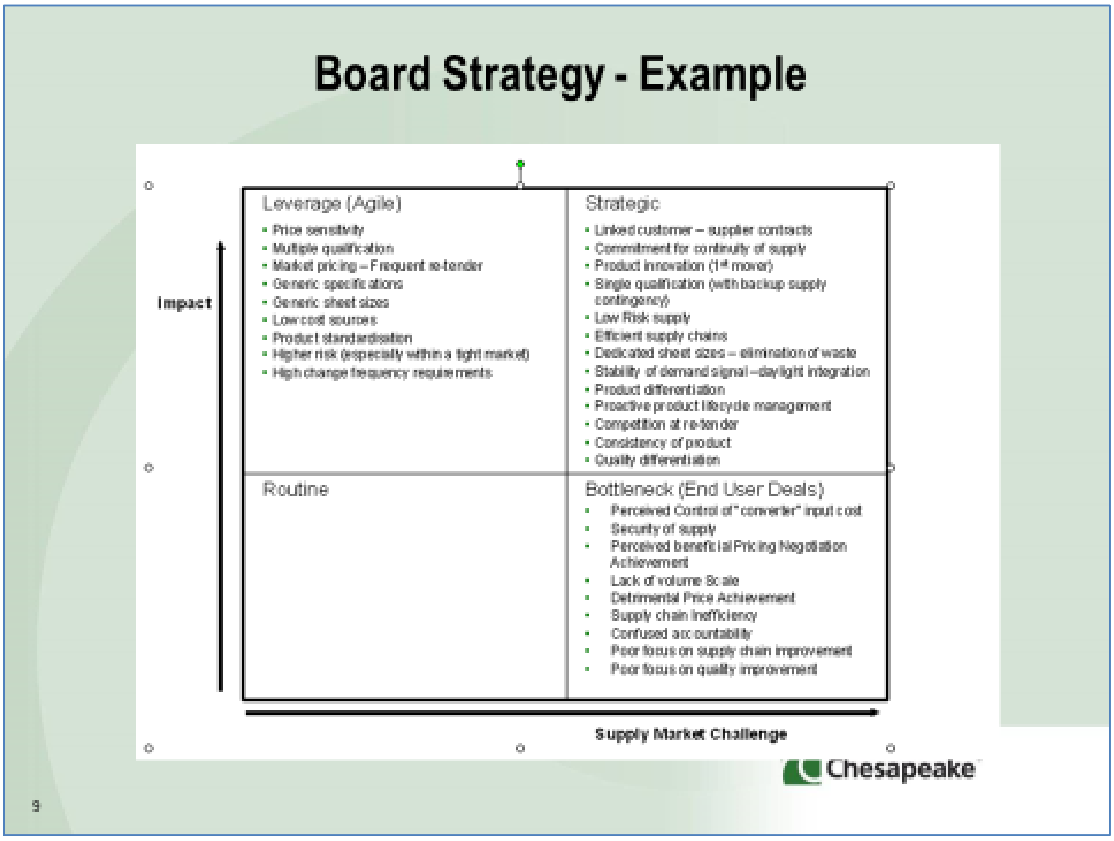


Figure 54 - Kraljic Strategy Analysis example

4.5.6.6 Risk Management

Risk management was introduced as part of the category management process (see section 4.5.6.8), and was reinforced during the early implementation of the board strategy, where availability became a real issue due to a number of issues including the Chilean earthquake of 2010.

4.5.6.7 Active Supplier Management

Ongoing and active supply management was introduced as part of the category management process. Those suppliers identified as "strategic" from within the Kraljic (1983) analysis were subject to a series of regular reviews in order to promote improvement and innovation as well as to ensure that quality, cost and delivery elements were being effectively managed.

4.5.6.8 Strategy Development - Category Management

The category management process adopted was based on an amalgamation of the Consultancy Company approach, and the category management approach adopted by Lucas Aerospace, as this was identified as being good practice (Figure 55). A gateway process was introduced, and strategy development was monitored during separate reviews with the category managers.

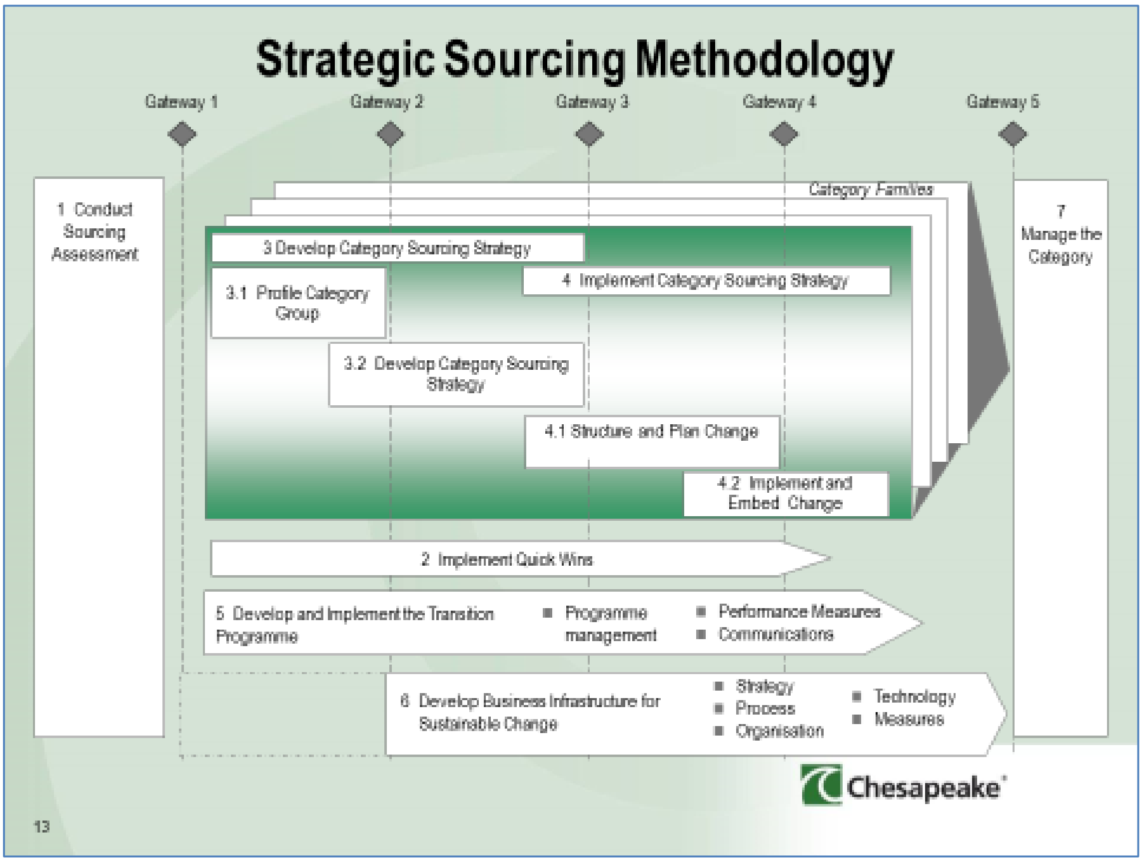


Figure 55 - Category Strategy Development Methodology

4.5.6.9 Innovation Development

Innovation was identified as an issue that the procurement function could use to reinforce its position as being critical to the business. For this reason, innovation was pushed with the suppliers that were deemed as "strategic" (Kraljic 1983). The forum was the regular supplier meetings as part of the active supplier management (section 4.5.6.7) and a number of opportunities were identified that provided both a business opportunity and an opportunity to differentiate Chesapeake from its competitors. An example of this was the introduction of a novel packaging concept with a key customer that utilised a hologram that was identified by the Chesapeake Packaging procurement representative as part of his end to end review of the supply chain. This innovative packaging concept was adopted and resulted in a successful marketing campaign run by the customer. Higher volumes (of high margin business) were given to Chesapeake and its supply partner, even though this solution was of higher cost than the previous one.

4.5.6.10 Efficiency of Process

Process efficiency was addressed through the implementation of e-enabled systems covering the end to end supply chain process including the implementation of: -

- Daylight (a customer demand capture and analysis tool)

- Holistic (a down-stream demand management system)
- PDC (a spend data capture and analysis system)
- eRfx (a suite of e-tools for the management of tendering and auction capability)

4.5.6.11 Final assessment - Approach

The changes made, based on the procurement effectiveness model, were significant and completely changed the way that Chesapeake Packaging approached supply chain management. The detail within this thesis is a summary of the main aspects of the approach that was changed, as there was a tremendous amount of work that was undertaken behind these summaries and could be the basis for additional research or academic publication. The implementation of the changes was still a "work in progress" at the end of the review period, as the evolution of strategic supply chain management is a continuous process, however there was a significant change and improvement to the activity and its perception within the wider organisation. Table 33 summarised the changes against the sub elements of the approach factor within the procurement effectiveness model.

Item	Ideal position	Chesapeake (Final)
Customer and Business Orientation	• A high degree of customer orientation in the development of procurement strategies • Measures taken to improve Trust • Make vs Buy	• Procurement objectives and activity aligned to business requirements through an objectives management process • Increasing levels of trust, although still evidence of cynicism • No opportunity for make vs buy activity
Boundary-Less Procurement	• Open scope to include all areas of external spend regardless of function etc. • End-to-end scope from Raw Materials through to End-Use customer	• Activity refocused on all external areas of spend • Full end-to-end improvement on key commodity (paper)
Suitable Organisational operating structure	• A balance between centralised and decentralised activity, and an inclusive and cross functional approach - flexibility based on market and business needs	• Centre-Led organisation structure developed with a flexible approach to supply chain management base on collaboration between the centre and the business units
Total Cost Management approach	• Total Acquisition cost approach - scope to include end-to end activity including logistics and supply chain management	• TAC model developed although implementation patchy - still a tendency to focus on ticket price and tactical savings activity
Supplier Relationship Management Approach	• Consideration made to relationships and Game Theory within the supply chain design activity	• SRM activity implemented with key suppliers

Risk Management	• Supply continuity risk management • Contract based risk management	• Risk management introduced through the development of a risk factor within standard strategy templates and through ongoing strategy review process. • Process established to enable paper supply from China
Active Supplier Management	• Effective Supplier Selection • Metrics developed and applied that supports business requirements Supplier Performance Measurement • Active supplier performance improvement activity	• Formal supplier selection process developed • Limited supplier performance metrics, although under development • Limited supplier development activity, although under development
Strategy Development	• Includes regional and Global analysis • Active business / divisional / site input to the development of strategies • Strategy documentation used as communications tool • Regular strategy updates and communication updates	• Gateway process developed by more active review process • Strategies developed in conjunction with the business units • Requirement for documented strategies, however only implemented on a limited basis
Innovation development	• Active process for the capture and commercialisation of innovation from the supply base	• Innovation included as a requirement, and technical department engaged with supplier innovation activity. Limited progress
Efficiency of process	• Efficient P 2 P process • eRFx processes • Compliance management	• P to P processes not standardise • eRFx suite introduced • No compliance management

Table 36 - Approach (Final position)

4.5.7 The “Communications” Element

Communications are cited within a number of research programmes as extremely important (e.g., Carr and Smeltzer, 1997; Lajara and Lillo, 2004; Lindgreen et al., 2009).

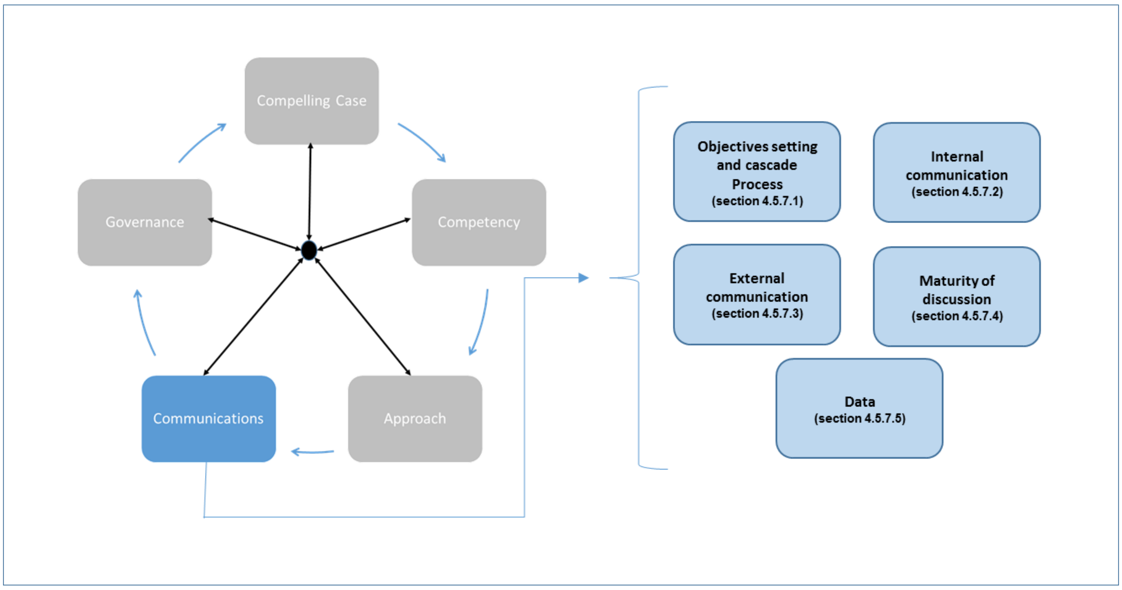


Figure 56 - Procurement Effectiveness Model (with sub-factors) - COMMUNICATIONS

4.5.7.1 Objectives and objectives management

An objectives management process akin to policy deployment / Hoshin Kanri was developed and implemented (see Appendix 11). Regular reviews against objectives were undertaken on a group, and an individual basis. The objectives process was also communicated to the other executive members and their respective teams to ensure that there was a wide understanding over what the expectations of the procurement team were. This relates to the observations of Chan and Chin (2007), in that an effective objectives management process is important in improving senior management's recognition of how well sourcing functions and personnel perform.

4.5.7.2 Internal communication

Active management of the communication process is supported by Hult and Nichols (1999), and a communications strategy was developed that set to proactively management the communication process. The strategy included: -

- Identification of key stakeholders and developed a specific strategy for influencing them
- Executive Steering Group Meetings update (Quarterly)
- CEO six monthly review
- Monthly summary report
- Monthly regional purchasing meeting
- Procurement updates via Webex
- "The Chain" Newsletter
- Perceptions Survey
- Informal Update opportunities

The effects of each of the communication vehicles were also regularly reassessed based on the objective of information transfer, as it was clear that having a framework for communication was irrelevant if the messages were being lost - a question therefore of communication effectiveness.

A push on PR type communication was also made resulting in "The Chain" newsletter. This served to raise the profile of individual members of the team as well as the group as a whole, and was a real motivator within the team. An example of this newsletter can be found in Appendix 12.

4.5.7.3 External communication

External communication was an area that did not receive a high degree of focus within the transformation, although there was a degree of activity in relation to raising the profile of procurement with some of the key customers. Additionally, the feedback from suppliers was ad-hoc as there was insufficient time to run a formal perceptions survey within the suppliers. Informally, both the key customers and key suppliers who were directly involved in the procurement transformation reported favourably in relation to how the procurement activity positively influenced the perception of Chesapeake Packaging generally.

4.5.7.4 Maturity of discussion

Throughout the transformation programme, the engagement with the CFO resulted in a much more positive discussion regarding the validity of the procurement declared savings.

4.5.7.5 DATA and Data Infrastructure

Data, was a real issue, and even basic consolidated spend information was difficult to obtain. The consultant led programme often had to ask the suppliers themselves what Chesapeake had spent with them! This also meant that when simple requests from stakeholders were made e.g., "What do we spend on …..?" it could take weeks to provide an answer. It was clear that this lack of information also had the effect of undermining credibility, so early in the process it was decided to invest in the data capture and analysis capability and a key system (Procurement Data Capture PDC - A data warehouse) was commissioned. The programme took approximately three months to achieve a level of maturity that data could be provided in a robust and timely manner. The result of this was that data requests were fulfilled within a few minutes, rather than weeks and the whole category management process was able to be implemented at a much higher pace than before.

4.5.7.6 Stakeholder engagement

Senior stakeholders were targeted for one-to-one attention, and the role of Regional Procurement Manager was introduced to ensure that there was sufficient attention and focus to the business units. As part of the objectives setting process an additional dimension was introduced in order to ensure that stakeholders were explicitly considered. This can be seen in Appendix 11, although in essence, for each objective, there was a discussion on both the approach and who the key stakeholders were (and how to influence them).

4.5.7.7 Final assessment - Communications

Communications are always an area that can improve, and the improvements made within Chesapeake Packaging on the back of the procurement effectiveness model did significantly improve the overall communications process.

Item	Ideal position	Chesapeake (Initial)
Objectives setting and cascade process	• Policy deployment type process in place • Include people and how to influence within policy deployment process (e.g., policy deployment +)	• Objectives management / Policy deployment process developed including assessment of people of influence (policy deployment plus)
Internal communication	• Close collaboration and good knowledge of business needs • Procurement approach communicated to the business (including the reasons why it is important) • Internal PR and good news stories • Perceptions survey	• Improved levels of communication evident • Introduction of “the chain” newsletter • Procurement “Stories” included on the intranet • Perceptions survey established - actions taken
External communication	• Communication of Procurement as a differentiator • Supplier perceptions survey	• Procurement cited as a differentiator within key customers • No Supplier perceptions survey, although ad-hoc and informal feedback obtained
Maturity of discussion	• Movement from “I don’t believe the savings” to “Where have the savings gone?” • Lessons learned • Procurement savings built into overall budget process • Consequential management (e.g., actions taken from internal / external perceptions survey)	• CFO fully supportive of the procurement programme • Lessons learned process imbedded • Procurement savings built into the budget process
DATA and Data Infrastructure	• A robust and timely process for the consolidation of accurate spend data (including demand and specification information)	• Data management processes built and implemented - Data Warehouse (PDC) • Demand management system built and implemented (Holistic)

Table 37 - Final Assessment - Communications

Overall the improvement in communications and visibility of procurement within the organisation both supported the momentum gained within the initiative and also gave rise to new opportunities being brought to the group. In the beginning it was as if the group was fighting for credibility and to get access to areas of spend, whilst at the end of the process, people were actively calling upon the services of procurement to support where an issue had been identified. This was a dramatic shift in the positioning of the role of procurement, and the communications element was significant contributor.

4.5.8 The "Governance" Element

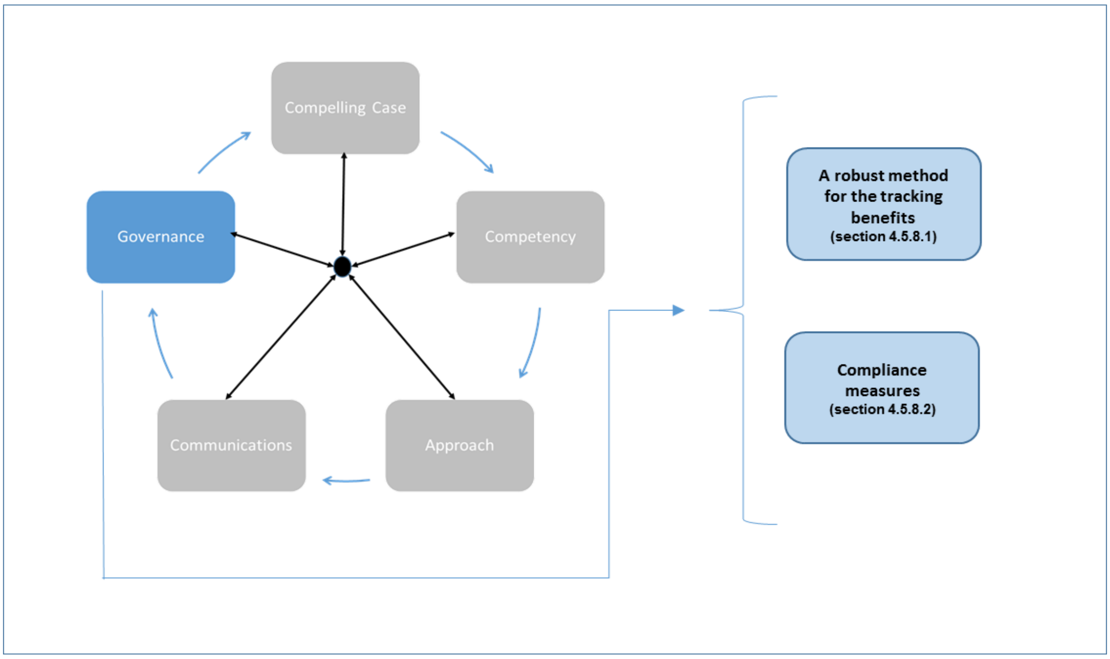


Figure 57 - Procurement Effectiveness Model (with sub-factors) - GOVERNANCE

Effective governance, as previously determined, is a way of increasing the levels of credibility and therefore confidence in the procurement programme. From the initial review it was clear that the existing governance arrangements were insufficient and therefore needed to be improved. The governance process required independent verification (Gershon 2004), and a greater link to the CFO. To this end, a member of the CFO's team was assigned to oversee the governance and set up an independent review process including a monthly meeting with the CFO. This also had the effect of directly aligning the procurement programme to the finance community and provided a link that was very useful for making change within the business units, as finance already had a high degree of influence.

4.5.8.1 A robust method for the tracking benefits - The White-book process

A process for governance was created called the White-book process (Figure 58), which managed a project from initial concept through to implementation and approvals for business cases and benefits realised. This effectively provided an audit trail for each project and achieved a high level of transparency within the process. The White-book database of projects was used as the vehicle for determining performance of both the programme and the individual category managers, and at the end of the process had over 400 discrete projects listed.

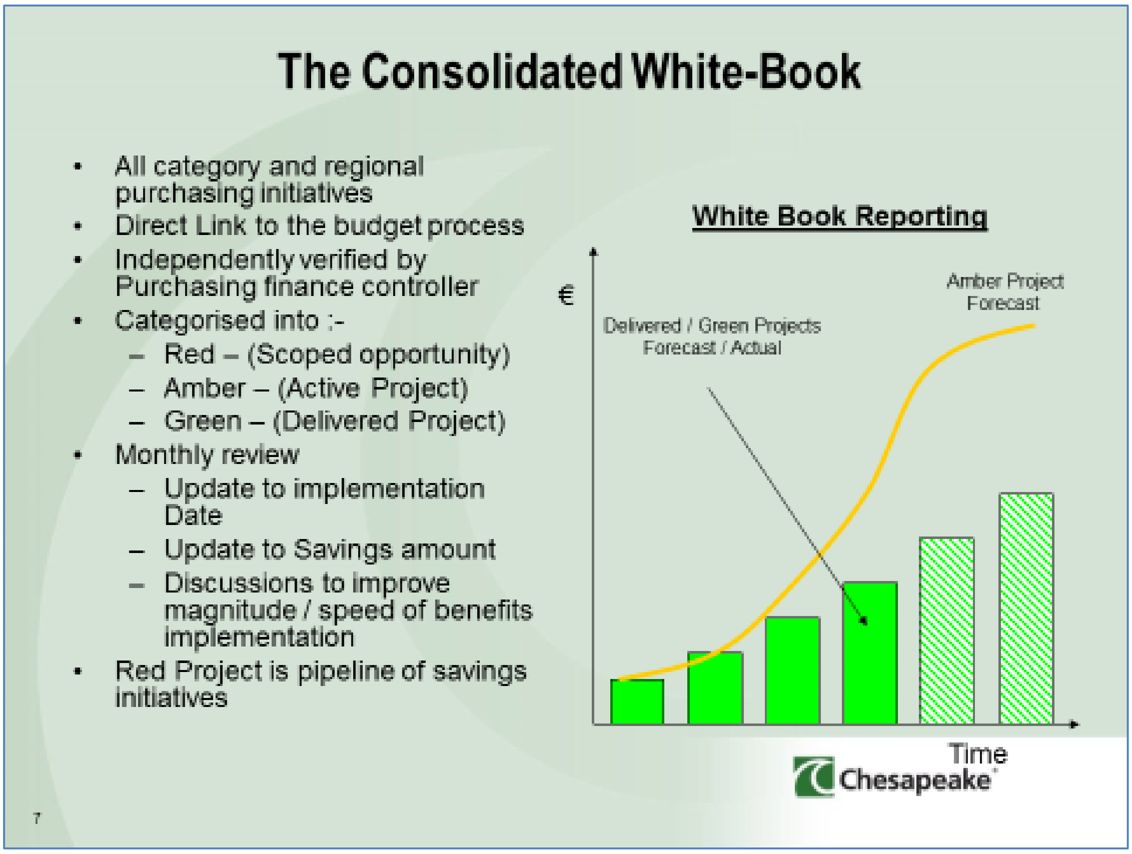


Figure 58 - The "White-Book" Governance Process

The “White-Book” name became a “brand” that was associated with the new governance arrangements and played a major part in increasing the level of governance and associated credibility within both the management and the wider community.

4.5.8.2 Compliance measures

No compliance measures were developed or implemented as part of the transformation programme as the procurement programme was not mature enough to implement this type of measurement programme.

4.5.8.3 Final assessment - Governance

Governance was significantly improved and the CFO was actively brought into the programme. This was a significant move, as the CEO relied on the CFO for his assessment (both subjective and objective) of how things were progressing. Prior to his involvement the CFO's response was one of distance to the programme, with comments such as "I don't see the benefit materialising to the bottom line" - a subtle way of casting doubt on the programme. However, at the end of the process the CFO was one of the strongest advocates and actively voiced support. In an informal discussion he commented that this was the best that procurement had ever been within Chesapeake Packaging. A summary can be found in Table 35.

Item	Ideal position	Chesapeake (final)
A robust method for the tracking benefits	• Benefits positioned as "Business" rather than "Procurement" benefits • Independent verification of delivered savings • Robust programme management approach to the evolution of ideas through to verified business benefits • Direct link of delivered savings to P+L impact	• Procurement savings / ticket price savings • No independent verification of declared savings • No link to P+L
Compliance measures	• Controls and Measures on the business for compliance against procurement policy	• No compliance measures in place

Table 38 - Final Assessment- Governance

4.6 Phase 5 Analysis and Conclusions (Effects of the Intervention)

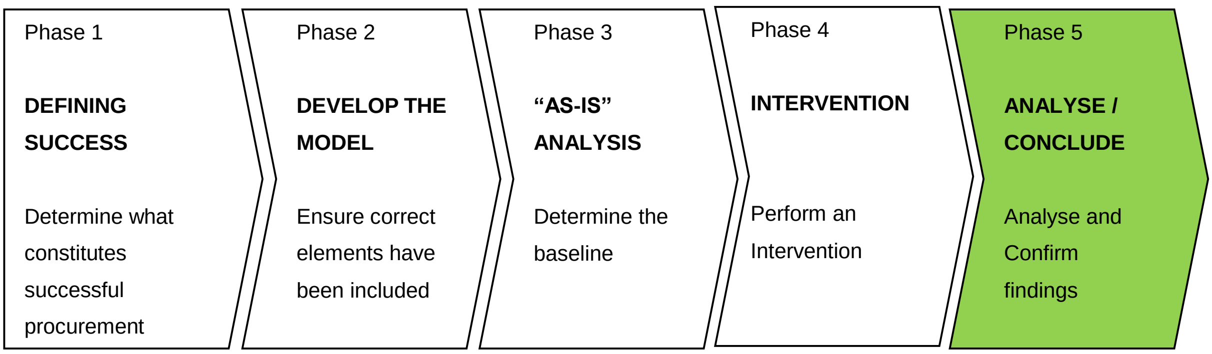


Figure 59 - Analysis and Conclusions

This section aims to provide a deeper analysis of the effects of the intervention, and to address some of the observations made throughout the research programme. The section predominantly supports research Objective 3 (*Determine the effect of applying the PEM in an industrial application).*

4.6.1 Savings as the primary objective

Savings were determined as the prime objective for the procurement initiative within Chesapeake packaging following a review of the business requirements and the key stakeholder perceptions. A wider and more strategic set of objectives were generated, although credibility needed to first be established to enable the wider objectives to be accepted. This initial positioning relating to savings was congruent with the key stakeholder expectations and therefore received a degree of support early in the process. However, the wider objectives, even though they were not pushed, were received with a degree of scepticism and it was not until the initiative had built up some degree of credibility did the wider objectives achieve acceptance. An example of building credibility with an approach that differs from pure savings is detailed in the next section.

4.6.1.1 Opportunities for Improved Credibility

Credibility is a common theme throughout the research programme, whether it is credibility of the individual, or from the procurement function as a whole. There are times that provide an opportunity for the wider benefits of procurement to be promoted, and early in the Chesapeake transformation programme one such opportunity occurred. There are mental models and expectations of what procurement does (Hult and Nichols 1999, Senge 1990), and by doing what is expected, you are only ever able to meet stakeholder expectations. When something goes wrong however, there is an opportunity to exceed expectations.

Within the Chesapeake procurement transformation, the initial over-riding and accepted measure of performance was savings and cost reduction, and other factors only became an issue if they were absent, e.g., quality and delivery performance. During the initial set up phase, there was an immediate issue relating to both the availability and costs of container board - an important raw material in the manufacture of boxes. This caused some frustration from senior stakeholders and was an immediate test of the function and the newly appointed CPO. In this case, cost increases were unavoidable (and counter to the original objectives for the procurement function) and availability of product became the over-riding concern. The net result of this was: -

- Customers who had previously resisted change of board were faced with the prospect of no product so were ‘forced’ to consider and test alternative products which ultimately resulted in more flexibility between supply options where previously the customer was reluctant to consider alternatives.
- The cost of board increased, which was ultimately passed on to the end customers. The increases negotiated were lower than the market increase, and the pass on to customers was typically at market levels resulting in an increase to the level of profitability. The strategy of linking front end customer contracts

and back end supplier contracts was initiated in order to manage the risk for Chesapeake where both customers and suppliers were considerably bigger in size and leverage. This was the first time that the procurement function was seen as contributing to the business as a whole, as it was able to influence Supply, Operations and Customers for the good of the organisation.

The board crisis therefore provided the opportunity to move away from pure savings measures to a situation where success was measured in terms of business performance, and what was initially bad news for the business, i.e., a significant increase in their raw materials cost, was turned into both an opportunity to increase overall profitability and also open up the potential to influence customers and increase supply flexibility.

4.6.2 Interventions based on the model

This section provides some further analysis of the effects of the intervention (based on the Procurement effectiveness model - Figure 60) as detailed in Phase 4 (section 4.5), and introduces the result of the perceptions survey in order to verify and sense check the findings from the viewpoint of the wider stakeholder community.

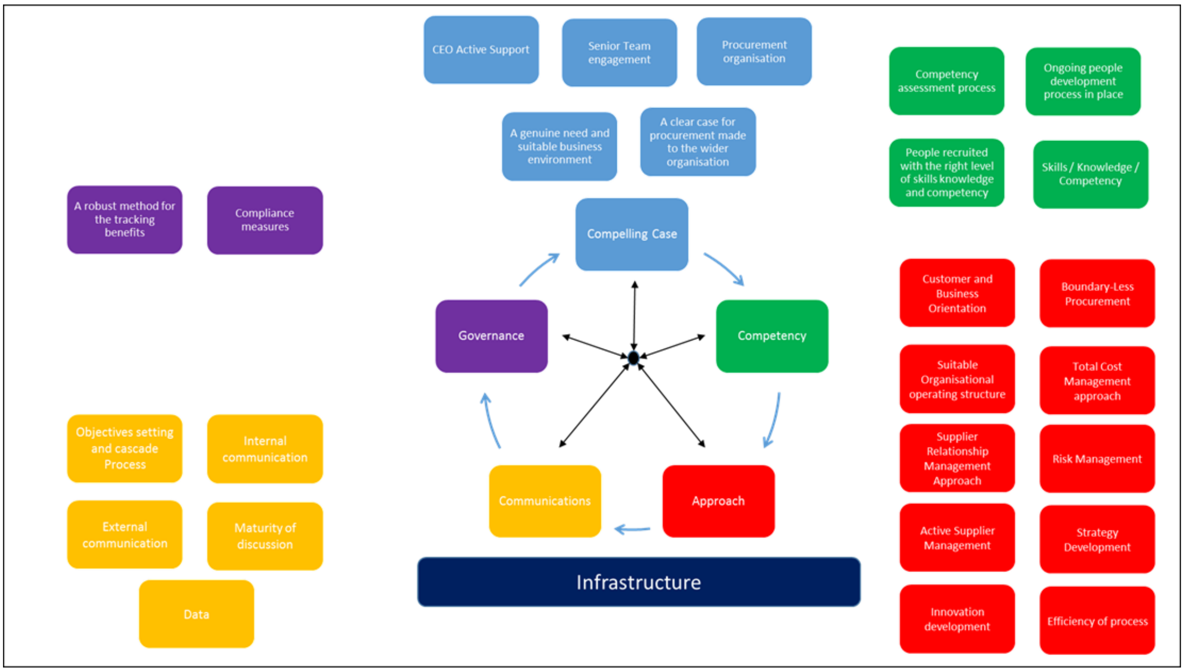


Figure 60 Extended Model

4.6.2.1 The compelling case

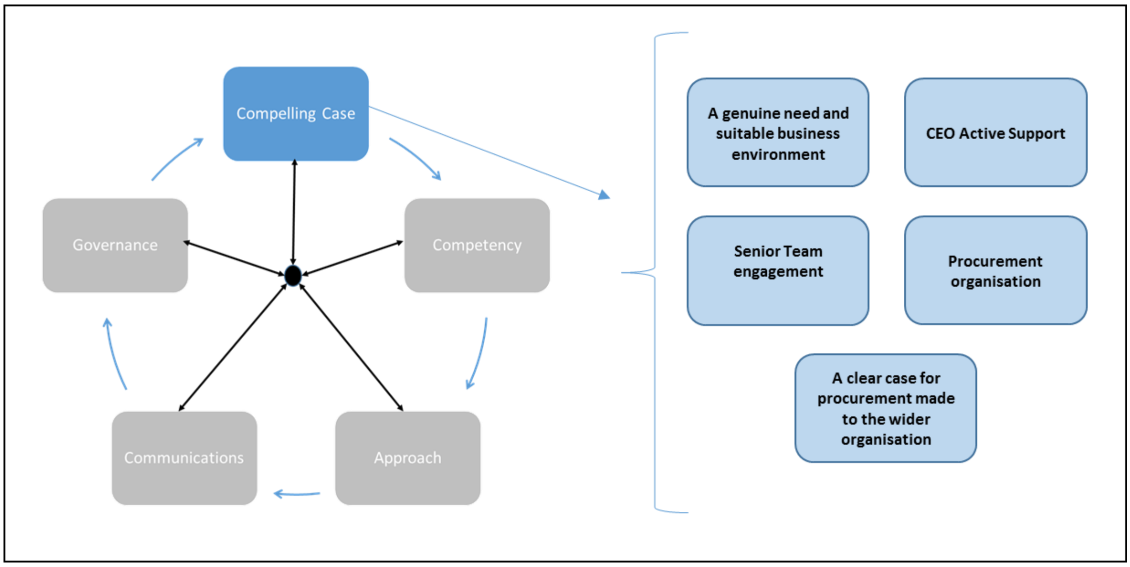


Figure 61 - Compelling Case (with Sub-factors)

Due to Chesapeake Packaging's recent past the compelling case was already strong within the organisation. From the Phase 1 interviews, Observation 2 (*The compelling case needs to be real for the stakeholders within the business and needs to be effectively articulated throughout the enterprise)* and 4a *(CEO sponsorship in isolation is not sufficient for the compelling case to be strong)* were established. It was clear that the need for a procurement transformation within the organisation was there, and that this had been highlighted and reinforced to the senior team by the recently appointed CEO. It was also clear however that there was at best a mixed level of true buy-in to the programme, and that the perception of procurement's role within the organisation from the senior team was still being influenced by their mental models (Hult et al., 1998).

Significant work was therefore required to redefine the role of procurement in their eyes, and to gain their support. It was however not just a case of presenting a new vision, as there was resistance to both the perceived loss of autonomy, and a perception that any central team would not understand the requirements of the business sufficiently to enable a coordinated approach to be successful. For this reason, both observations 2 and 2a are supported, as it was only through the stressing (and delivering) of benefits for both the overall business and the individual business units, was there sufficient support in order to achieve a degree of traction for the programme. It is suspected that Observation 2 should be expanded to include that if the compelling case is not perceived as real for the stakeholders, then there may also be a degree of subtle undermining of the activity that takes place. The phrase "appearance of compliance" was admitted by some of the internal stakeholders - a position that was also identified by Subject 6, within the Phase 1 interviews in relation to the priority given to their corporate procurement initiative. This could be an area for further research as this approach to subtle undermining a particular approach is, in the experience of the author, quite prevalent.

4.6.2.1.1 Perceptions survey - in relation to the compelling case

From the perceptions survey, two questions were relevant; Question 13 and Question 8. Question 13 asks - "*Do you think that the current Group Procurement Programme is right for Chesapeake?"*

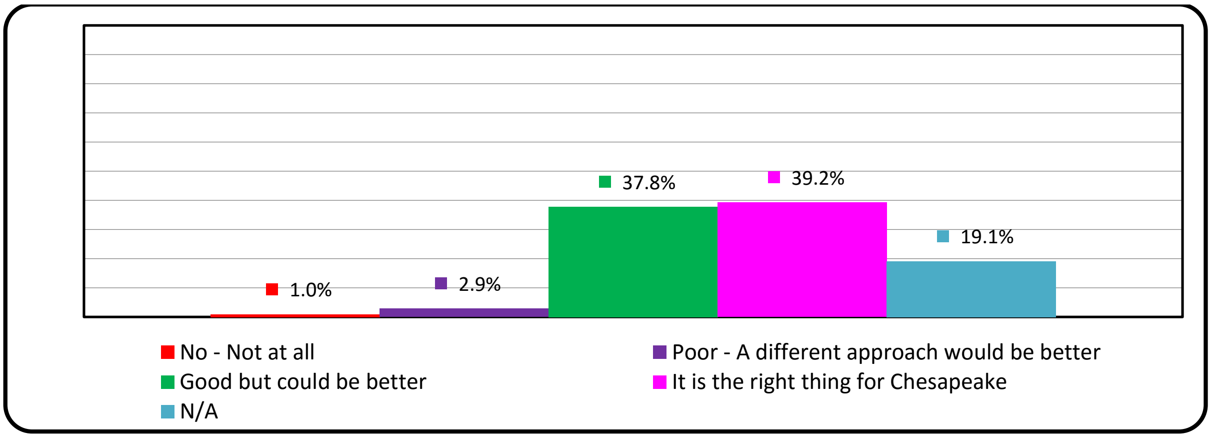


Figure 62 - Perceptions Survey Q13

The responses were overwhelmingly supportive that the new programme was the right thing for Chesapeake, with 77% of respondents supporting the programme. This was a good result as previously procurement had both a poor reputation and a low level of visibility within the organisation as a whole.

The appointment of regional procurement managers was made to ensure that the business units were effectively represented, and were responsible for the ongoing reinforcement of the need for professional procurement within the business units. Question 7 asked "*Does having the Regional Purchasing Manager represent my specific business unit interests within the procurement programme work well*?"

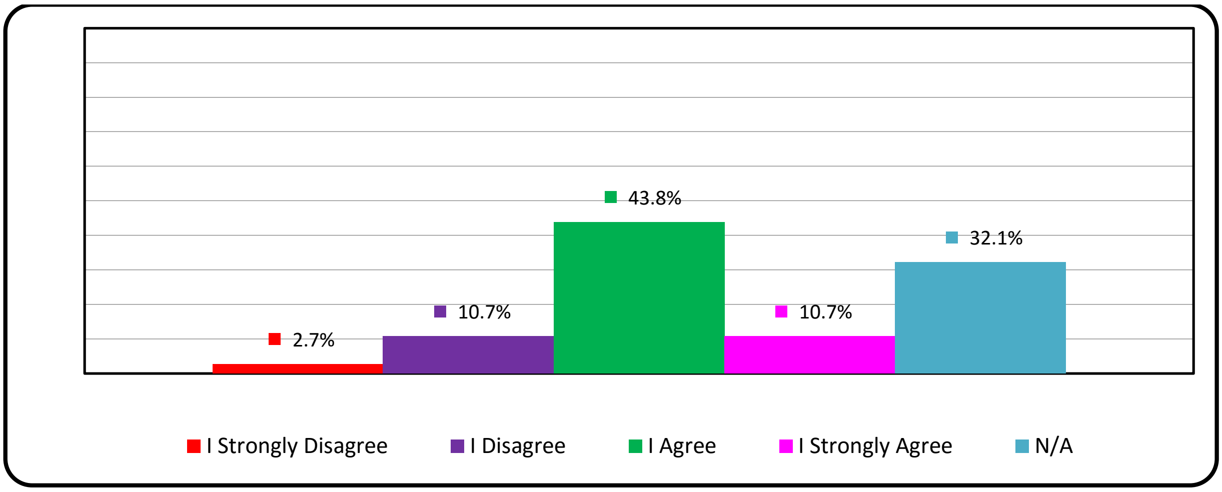


Figure 63 - Perceptions Survey Q8

Around a third of respondents did not feel that they understood the role of the RPM sufficiently well, although 54% of respondents were positive.

4.6.2.2 Competency

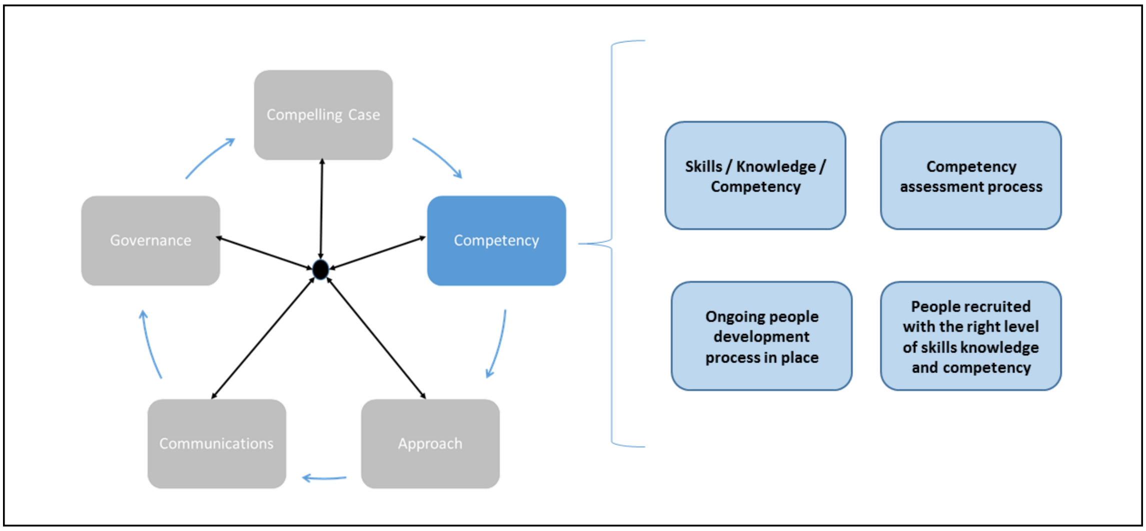


Figure 64 - Competency (With sub-factors)

Some additional observations regarding the competency element were made and required a degree of clarification. The additional observations are detailed in section 4.5.5.1, although are repeated below. It should however be noted that these observations are in effect preliminary hypotheses, and for the results to be conclusive, would require additional research under much more controlled conditions. The observations are as follows: -

- Observation 7 - That the individual's appraisal score correlates to the savings delivered (i.e., that the people who achieve a higher rating on their appraisal deliver higher savings)

- Observation 8 - There is a positive correlation between the competency profile and the appraisal score
- Observation 9 - That there is a positive correlation between competency and delivered savings
- Observation 10 - That there is a relationship between reasoning ability (verbal and Numeric) and appraisal
- Observation 11 - There is a relationship between salary and performance
- Observation 12 - A performance related bonus scheme would increase performance

The first set of analysis in relation to the additional observations looked at whether there was a correlation between the appraisal results and delivered savings, as it was important to determine whether the overall management process was focussing on the right element of people management. This was captured in Observation 7 - *(That the individual's appraisal score correlates to the savings delivered (i.e., that the people who achieve a higher rating on their appraisal deliver higher savings))*. It can be seen from Figure 65 and Figure 66 below that there is a degree of correlation between the appraisal and savings performance as measured against both target and total spend.

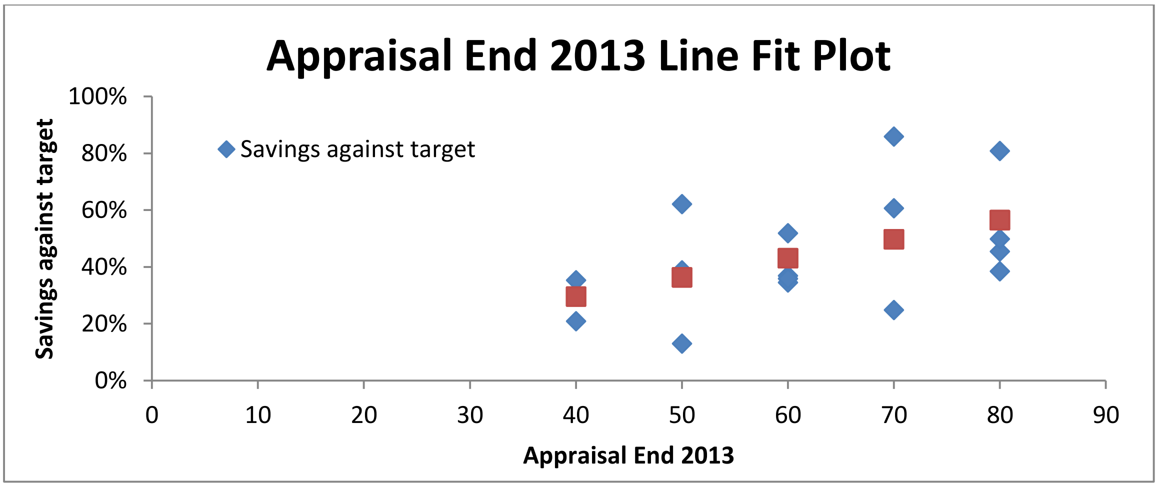


Figure 65 - Appraisal to Savings (Target)

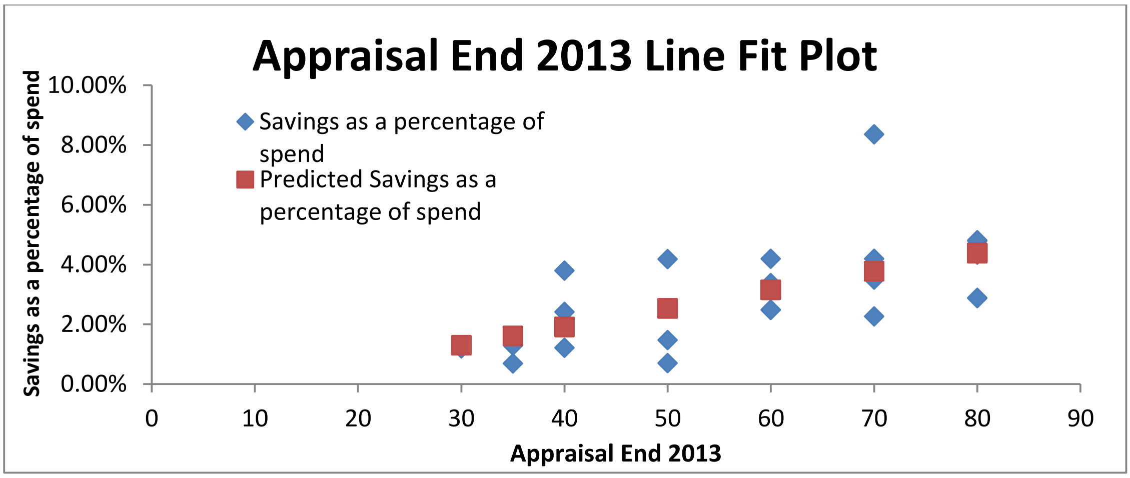
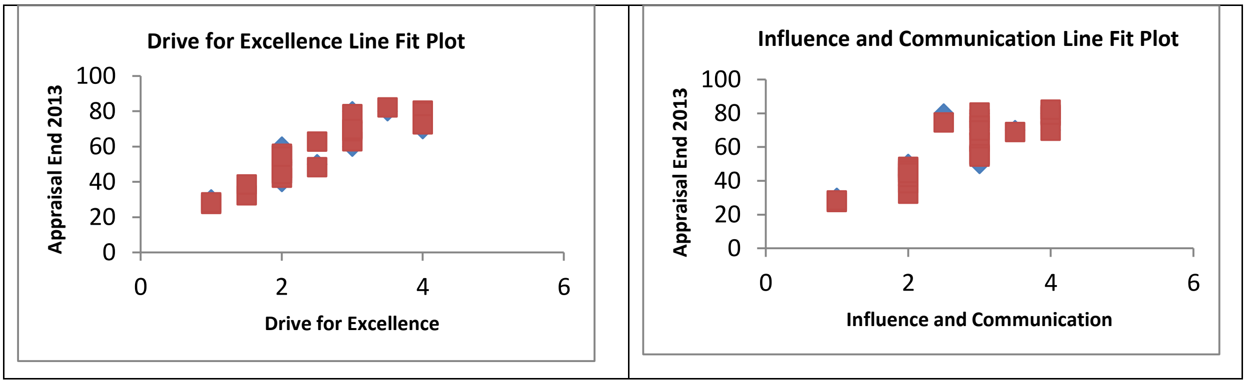


Figure 66 - Appraisal to Savings (as a % of spend)

The results however were not as expected, in that there was a higher correlation between the appraisal performance against spend rather than against target. This was counter-intuitive, as savings targets were set based on an allowance of category manager aptitude and the complexity of their category, i.e., that if the category manager was more junior, then a lower target against their category domain (their total addressable category spend) would be established. There was a positive correlation in both “appraisal against target savings” and “appraisal against savings as a proportion of spend”, and therefore Observation 7 is supported (in the specific case of Chesapeake Packaging).

The competency set for procurement practitioners was developed during the expert sessions and was based on their input rather than a quantitative assessment. For this reason, an analysis of performance against competency was made in order to prove or dis-prove that the competencies chosen did positively correlate to performance. In relation to Observation 8 - *(There is correlation between the competency profile and the appraisal score),* the results of the analysis show that there is a good correlation between competency profile and the appraisal score (Figure 67), and that “Stress and Pressure”, “Customer Orientation”, “Concern for Order and Detail”, “Team Working”, and “Influence and Communication” were the main contributors. The full analysis is shown in Appendix 10.



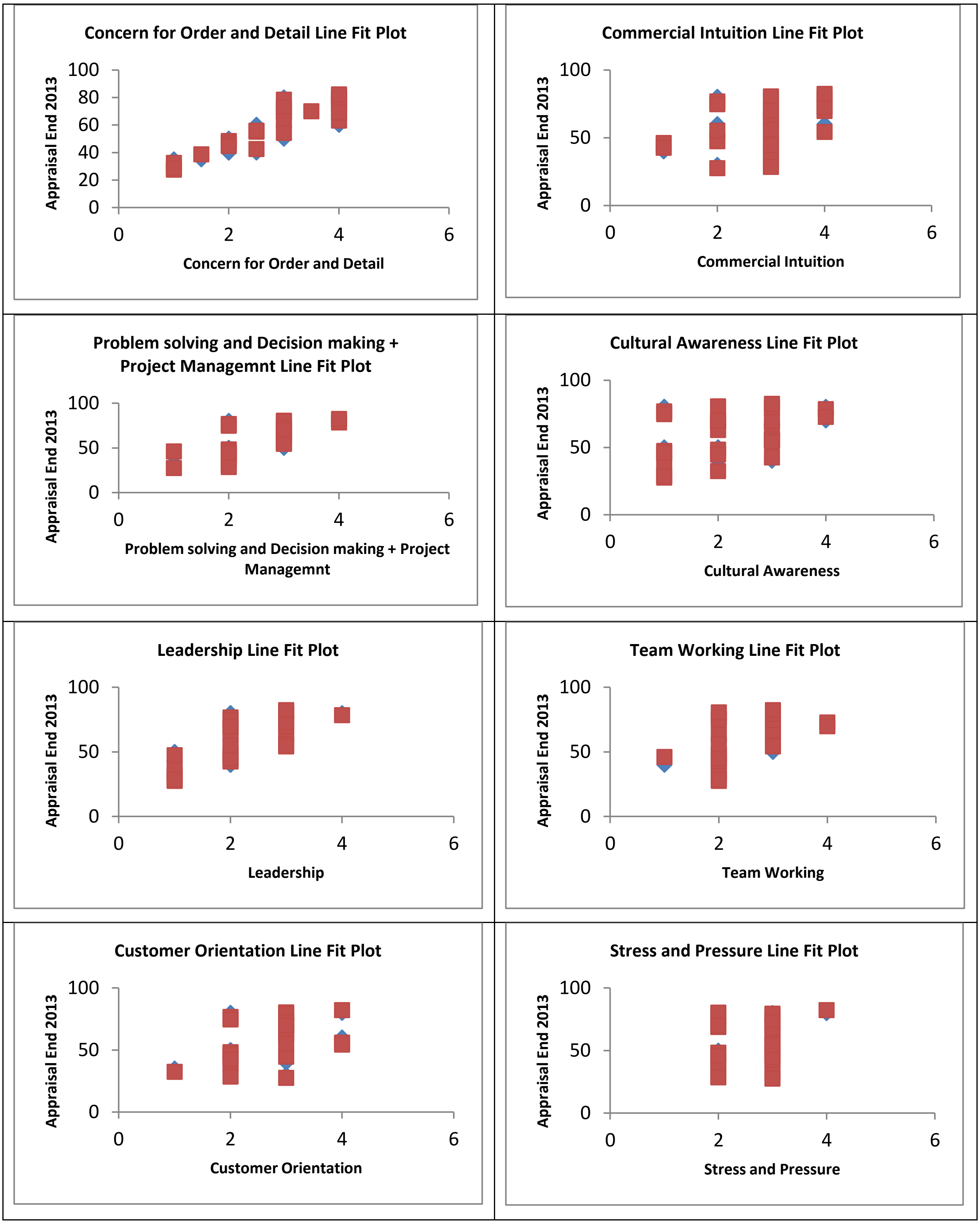
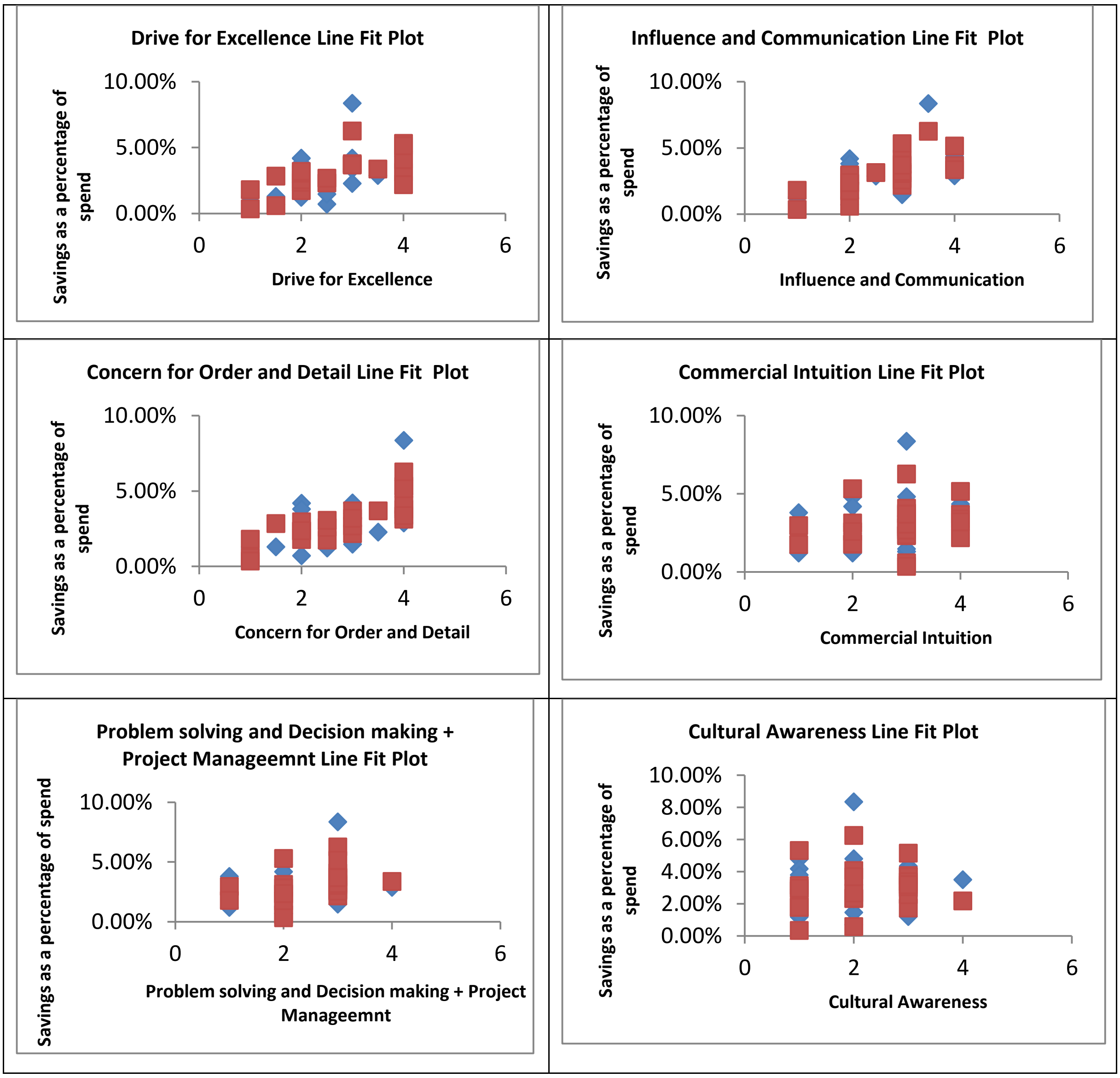
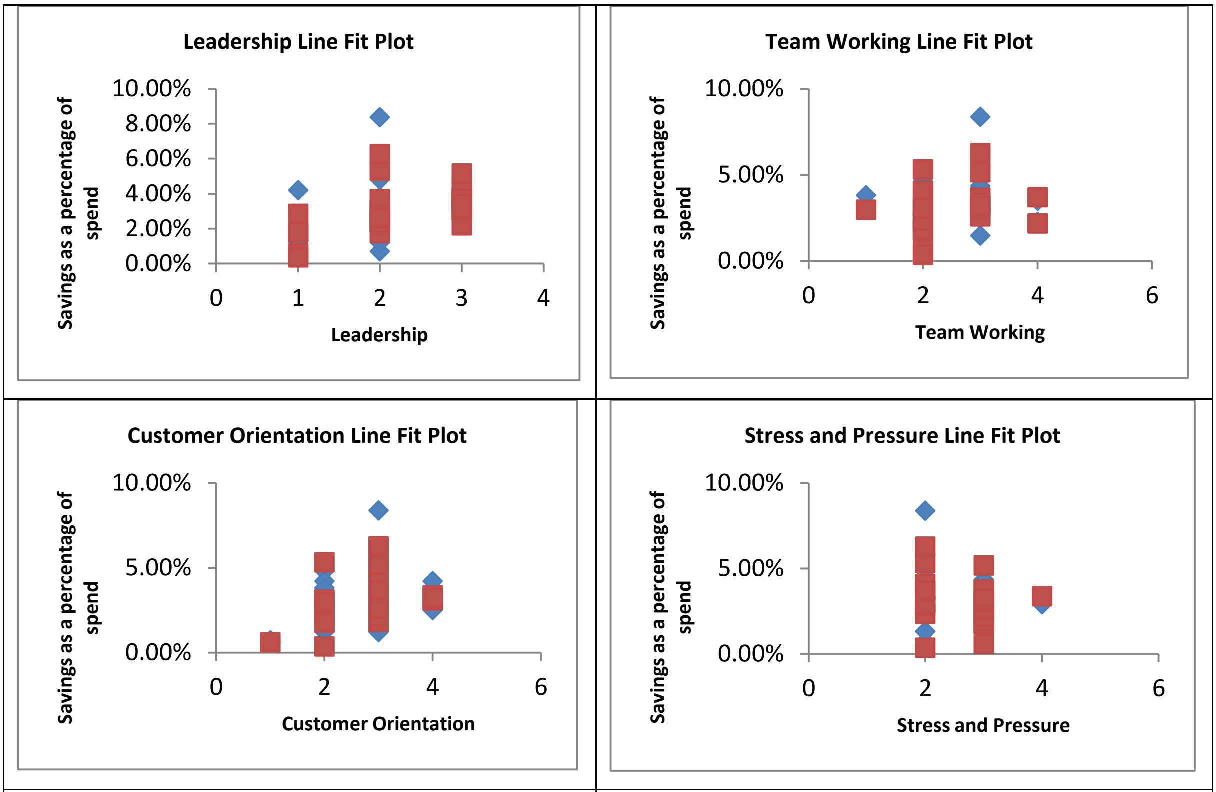


Figure 67 - Analysis - Competency to appraisal correlation

Observation 8 is therefore supported, although there were clear competencies within the overall profile that had an influencing factor. The Stress and Pressure competency was surprisingly high and its effect would require further analysis. “Customer Orientation”, “Concern for Order and Detail”, “Team working” and “Influence and Communication” are all attributes that are likely to be seen as positive within an appraisal process and a degree of subjectivity is always associated within appraisals. Influence based elements would also likely indicate a competence in upward management, although this should be further tested.

For Observation 9 (*That there is correlation between competency and delivered savings),* the analysis was performed against both savings against target and against addressable spend. In relation to savings against addressable spend, the R squared value is 0.619, although care should be taken due to the fact that the data set did not pass the significance test (With a Significance F value at 0.135) against the accepted norm of significance values >0.05 not being statistically significant. By inspection, “Drive for Excellence” has the greatest contribution. For savings against target, as per the savings against spend, the analysis fails the significance test, although “Problem Solving and Decision Making”, “Leadership”, “Concern for Order and Detail” and “Drive for Excellence” all contribute positively.





Key: -

Predicted Values

Actual Results

Figure 68 - Analysis - Savings against Competency

Observation 9 cannot therefore be confirmed due to the fact that the results are not statistically proven, however there is sufficient evidence to suggest that there is merit in further analysis in order to prove, or disprove the observation.

Observation 10 (That *there is a relationship between reasoning ability (verbal and numeric) and appraisal),* (shown in Figure 69 and 70) looked at a measure of inherent aptitude as measured through verbal and numeric reasoning tests. However, the data is insufficient to prove the observation and cannot therefore be confirmed as the analysis fails the significance test.

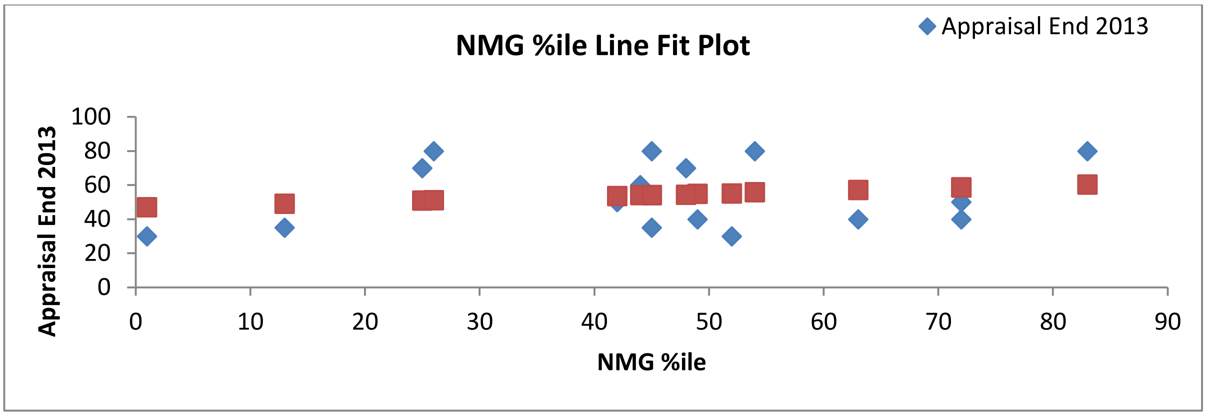


Figure 69 - Analysis - Numeric Reasoning to Appraisal

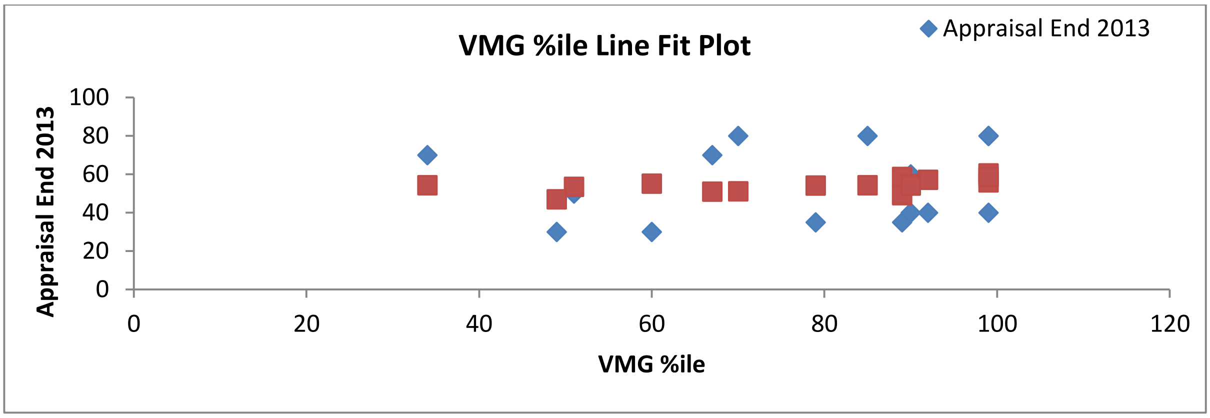


Figure 70 - Analysis - Verbal Reasoning to Appraisal

The relationship between salary and performance as per Observation 11 (*There is a relationship between salary and performance),* (Figure 71) is interesting and requires more analysis, as by inspection there appears to be a negative correlation between the two which is counter-intuitive. However, at this stage this is simply an interpretation of the graph, and the statistics do not support the observation, and would therefore require additional investigations. If the premise is true that there is either no correlation, or indeed a negative correlation, then there could be a number of influencing factors including: -

- More complicated areas of spend are typically given to more experienced category managers
- Senior category managers are typically given some management responsibilities in addition to their category management responsibilities
- Junior members of the team are more “Hungary” for savings

Further research into the salary vs savings performance is therefore warranted.

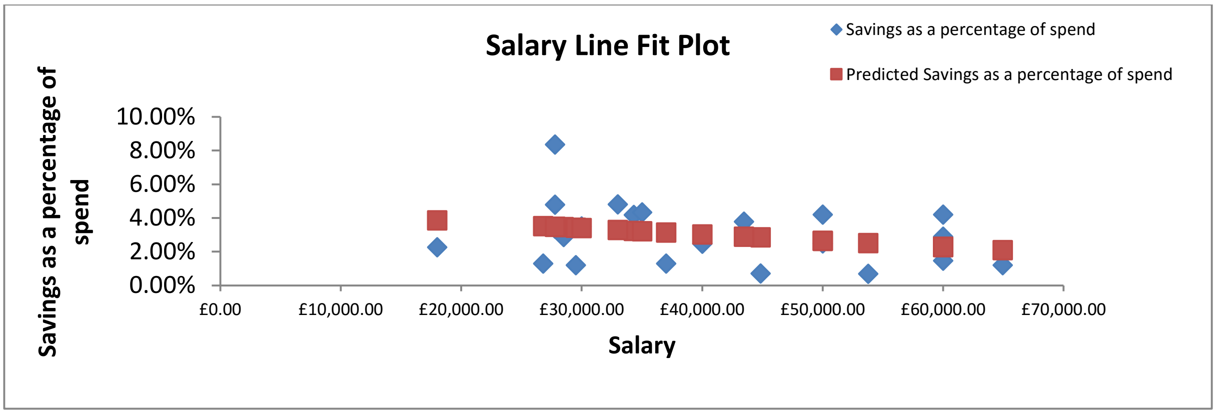


Figure 71 - Analysis - Savings against Salary

4.6.2.2.1 Competency testing - Discussion

The overall results in relation to competency vs performance is not conclusive however there are strong indications that there is merit in recruiting against and developing competencies that are required by a procurement function. Again, the specific competency profile is likely to be situation specific, as different organisations operate within different environments. For example, Chesapeake Packaging operate an autonomous business unit structure, with procurement as a group function that operates across all divisions and business units. For this reason, there needs to be a high emphasis placed on the "Influence and Communication" competency, as compared to organisations with a more functional structure.

"Drive for Excellence", "Influence and Communication" and "Concern for Order and Detail", were most often influential over the correlations although not statistically conclusive, there is sufficient evidence to indicate that this subject warrants further research within a more controlled environment.

It was surprising that there was no proven correlation between general aptitude (as measured through the Verbal and Numeric reasoning tests) to performance, or in fact salary to performance, although these may be simply due to a relatively small sample size.

4.6.2.2.2 Procurement Academy - Discussion on the impact of this initiative

Subjectively, the launch of the procurement academy had a noticeable effect on team motivation and morale. Feedback from team members included comments that indicated that this was the first time that their personal development had been considered as there had been no active management of this within the organisation to date.

The procurement academy benefits included: -

- Best practice documented and disseminated
- Improved motivation for both the “subject matter experts” and also the recipients of the training
- Low / no internal costs for training and development
- The programme was empowering for the team

However, there were also some issues in regard to the programme: -

- Slow to achieve traction, not seen as a priority
- Slow implementation caused some dis-satisfaction

The full effect on the team’s performance could not be separated from other team based or team building activity, so remains a subjective assessment.

4.6.2.2.3 Introduction of a Performance Related Bonus Scheme

For Observation 12 (a performance related bonus scheme would increase performance) a performance related incentive scheme was introduced during the final year of the transformation activity. There is no quantitative data to support the observation, so a qualitative analysis was undertaken.

The procurement team were all very keen to have a performance based bonus scheme that more directly affected their remuneration. Previous bonus schemes were skewed towards overall company performance, and feedback from the team indicated that there was little or no incentive for them to improve, as the effect of their individual activity over the overall company performance was low. The scheme was therefore changed to a 100% individual performance scheme, where there was an opportunity to improve on their salary by up to 20%.

The introduction on this new bonus scheme only noticeably affected two cases, where the actions of the category manager became more focused on the delivery of savings. In both of these cases, the competitiveness of the individual (as measured within their OPQ personality profiling) was high. For the others, there was no appreciable difference to their approach. In reality, there was insufficient time available to fully assess the introduction of this scheme, although it is suspected that the impact would only have an effect on certain personality types. Again, this would be an interesting area for additional research, although within this study it can be concluded that there was insufficient evidence for the observation to be proven.

4.6.2.2.4 Perceptions Survey - People

From the perceptions survey, question 10 (*Category Managers bring a good insight and show a good understanding of the categories that they have responsibility for*), was relevant to how the development of people within the procurement function was perceived within the wider organisation. There was only approximately 9% of respondents that specifically disagreed with the premise that category managers bring a good insight, although 27% of respondents did not feel that they were able to comment.

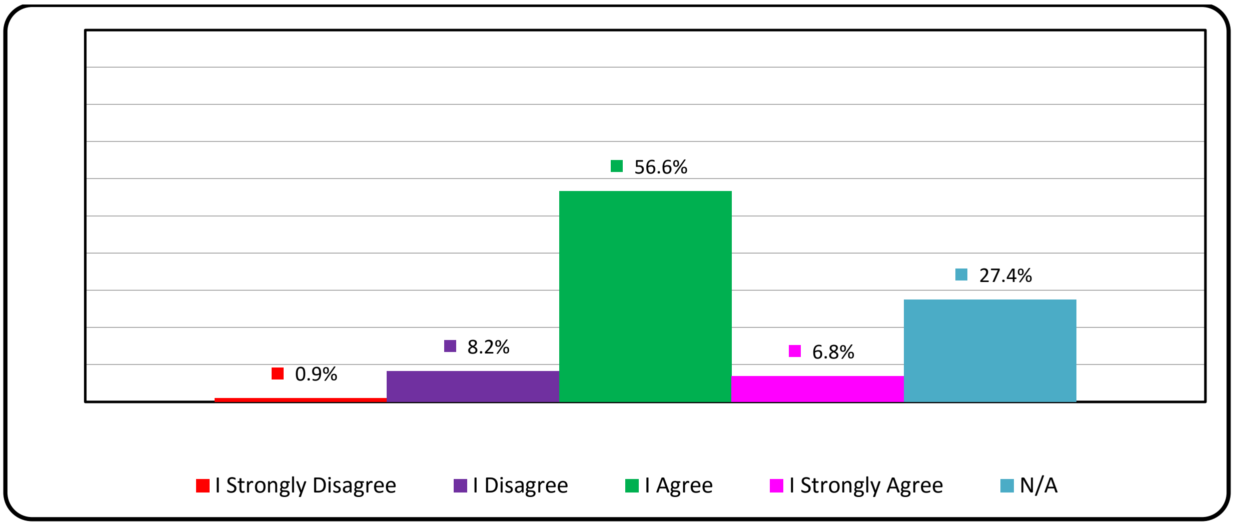


Figure 72 - Perceptions Survey Q10

4.6.2.2.5 Competency Factor - Summary

In summary, there was a considerable amount of work done in relation to the people competency and associated sub factors. Generally, the results are indicative rather than conclusive and therefore opens up an opportunity for further research into the effects of each of the sub factors.

In relation to determining the effects of the model in relation to the competency factor, it was clear that getting the right people with the right skills, knowledge and competency into position was an important aspect of the Chesapeake Packaging procurement transformation. The approach based on the procurement effectiveness model challenges the typical profile of an individual recruited into a procurement role in that the “influence and communication” competency factor is important, along with the “drive for excellence” and “concern for order and detail”. The verbal and numeric aptitude tests in isolation showed no correlation to success (as measured by either appraisal or savings performance). The procurement academy served as much as a motivational tool as a knowledge transfer tool, and the introduction of the performance related bonus only had an effect on the people that were highly competitive as measured by the OPQ.

4.6.2.3 "The Approach" Element of the Procurement Effectiveness Model

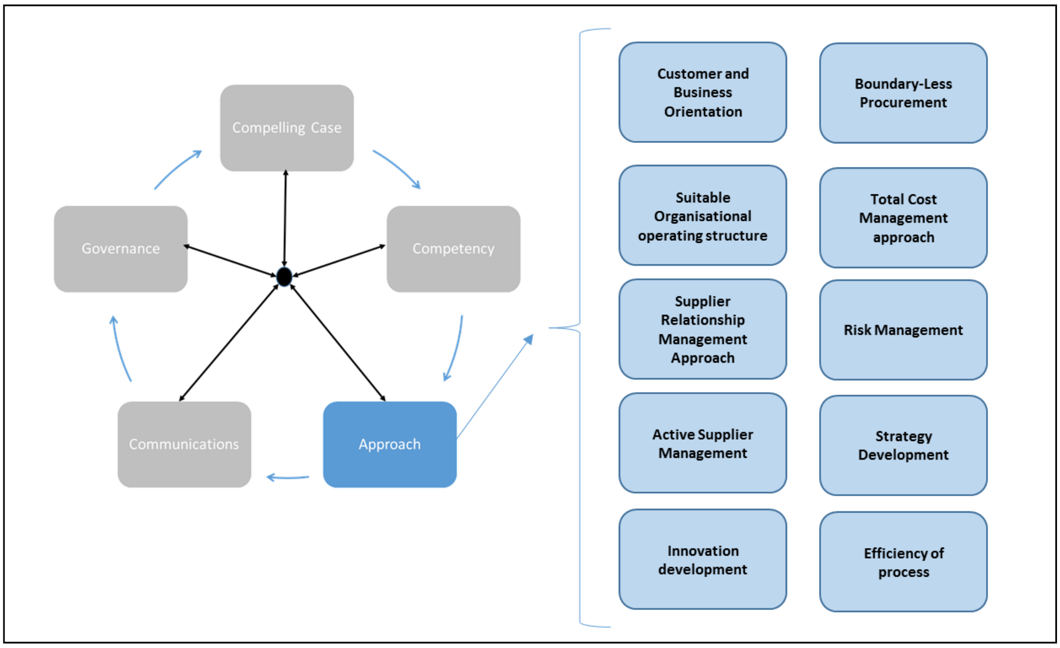


Figure 73 - Approach (with Sub-factors)

The approach category looked at how the procurement function approached the management of the supply base and included category management, supply chain management and ongoing relationship management. At the beginning of the process the approach was very traditional and extremely tactical, although significant progress was made, it cannot be concluded that the journey was complete. Some of the main principles had however been incorporated, and are detailed in the following sections.

4.6.2.3.1 General Approach

Based on the effectiveness model, the approach to category management was significantly changed away from an overtly tactical approach to one that was much more strategic and included total acquisition cost, relationship management and end to end supply chain management etc.

The effects of this approach was impacted by: -

- The total acquisition approach was more difficult to quantify and therefore measure
- Presentation of the new approach was positively received by the stakeholders (although they were still more motivated by tactical savings)
- The revised approach created more consistency of message from the procurement team, especially with the suppliers
- There was typically an education requirement for both internal and external staff and stakeholders

- New relationships were created with key suppliers
- The approach increased the level of innovation from the supply base
- Savings performance significantly increased over the three-year programme as compared with the baseline and previous activity

In relation to stakeholder engagement, over 80% of the survey respondents confirmed that the revised approach was either “Acceptable”, “Good” or “Excellent”, which supports the positive perception of the effects of applying the procurement effectiveness model within Chesapeake Packaging.

4.6.2.3.2 Perceptions Survey - Approach

From the perceptions survey there were two questions that were relevant to the approach - Question 3 and Question 11. The first question addressed the awareness of the approach i.e., How aware are you of the approach taken by group procurement? e.g., The Total Acquisition Cost (TAC) triangle and the category management gateway process?

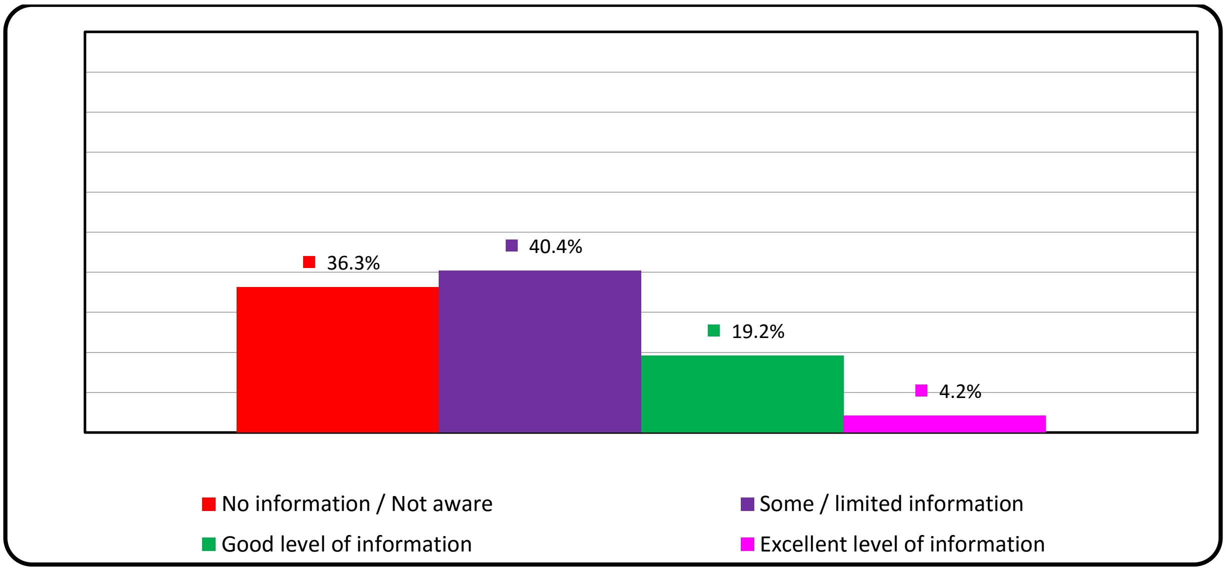


Figure 74 - Perceptions Survey Q3

Figure 75 shows that there was 36% of respondents who were not aware of the approach, so still room for improvement, however the majority of respondents were aware. Question 11 (*I believe that the procurement activity is concerned with more than just prices e.g., Quality, Cost, Delivery, Cash, Innovation etc*.) shows just under 80% of recipients agreed that the procurement approach was much more than just focused on price (Figure 75).

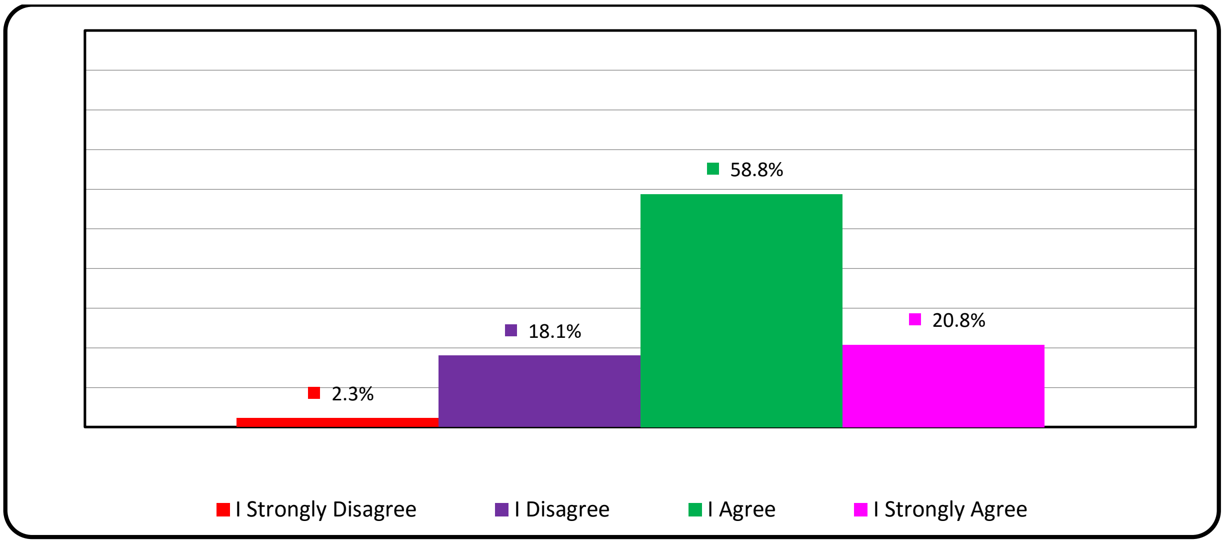


Figure 75 - Perceptions Survey Q11

4.6.2.4 Communications, Marketing and Data

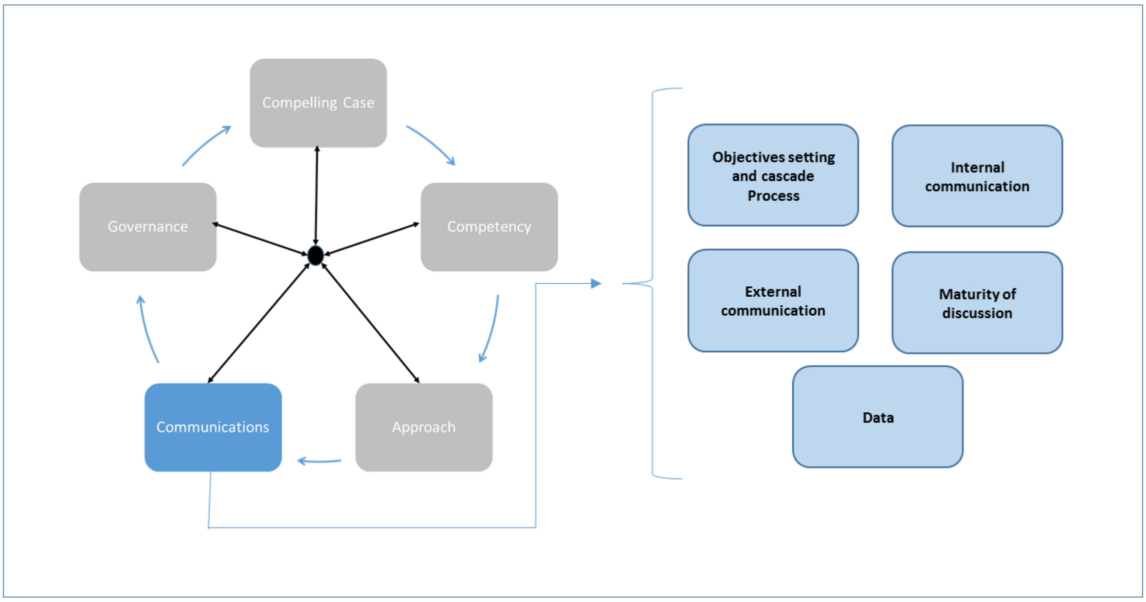


Figure 76 - Communications (with sub-factors)

Communications received much more focus within Chesapeake Packaging than had previously been the case. There were significant improvements in terms of communications both within the team, and from the team to the wider stakeholder group. In isolation it is very difficult to determine the effects of the improved communication processes, although based on informal feedback (both within and external to the procurement group), the overall perception of procurement had significantly changed. Procurement as a strategically important function within the company was established, and was a major change from previously, and general awareness of the function was high (as measured within the perceptions survey - detailed in the next section).

Procurement was starting to be seen as a preferred place to build a career, as there was a positive atmosphere that had developed. Previously procurement was seen as a "dumping ground" for people to were not able to develop within their own disciplines, whilst at the end of the process, there were a number of people who wanted to join as procurement was seen as a new and exciting place to be.

The objectives management process was identified by the category managers as a key vehicle for communications that not only set out the expectations, but also supported them by detailing the key steps and approach required to achieve the objective as well as how to manage key stakeholders. This "Policy Deployment Plus" process actively highlighted how to approach key stakeholders and the reinforcement of the compelling case at both the strategic and operational levels, and was seen as a significant improvement over the previous objectiveness management process.

Data availability was vastly improved as a function of the implementation of the Procurement Data Capture (PDC) programme, and both response time to data requests, and the building of data based procurement strategies were vastly improved.

4.6.2.4.1 Perceptions Survey - Communications and Marketing

There were two questions of relevance to the "Communications and Marketing" element of the procurement effectiveness model. Question 1 (Figure 77) related to overall awareness and question 2 (Figure 78) related to awareness of objectives.

Q1. How aware are you of the group procurement activity?

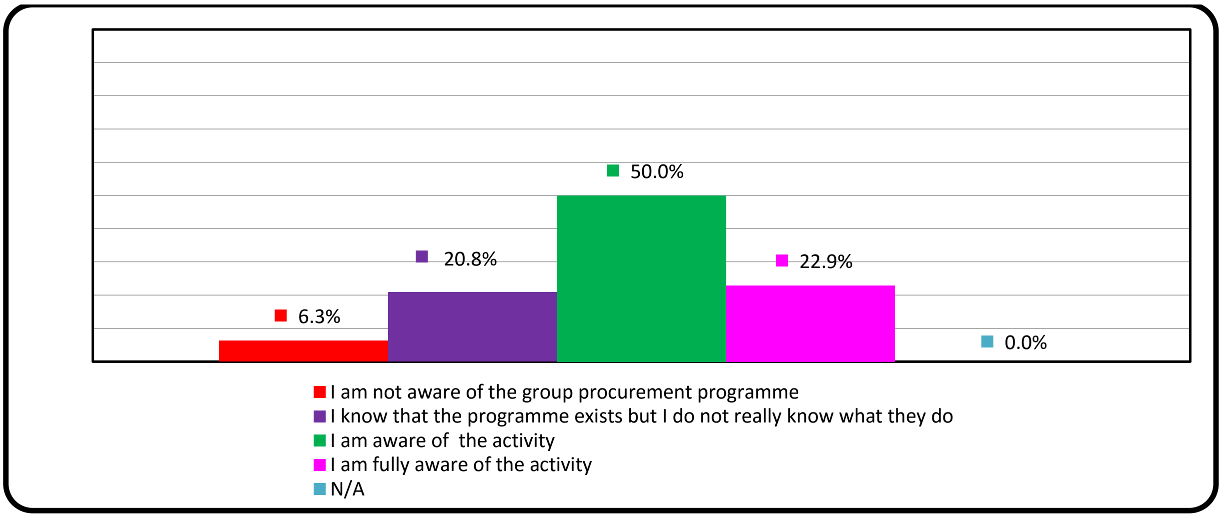


Figure 77 - Perceptions Survey Q1

Q2. How well informed are you about the aims and objectives of the programme?

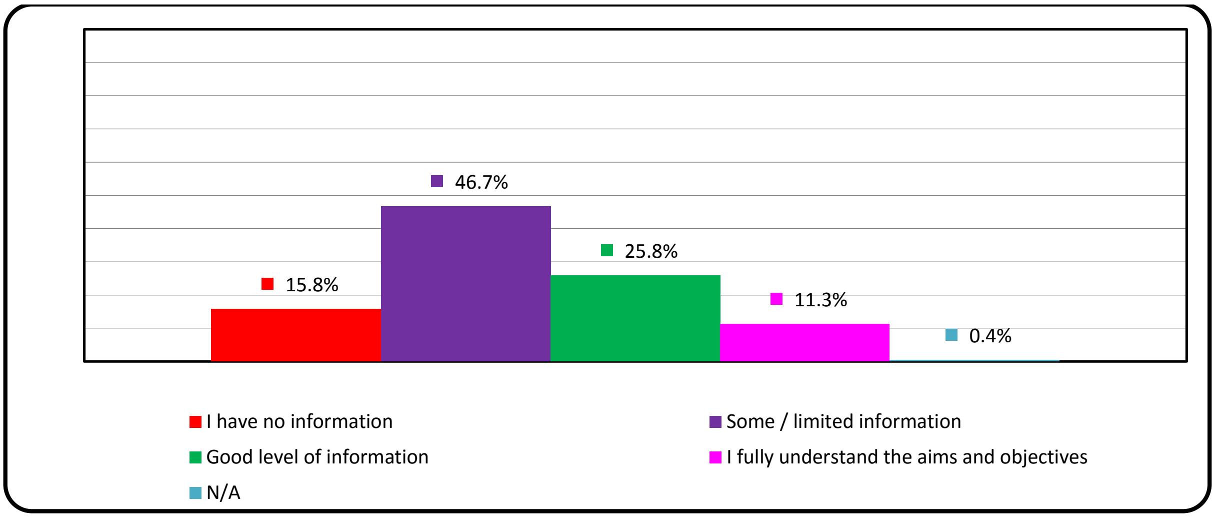


Figure 78 - Perceptions Survey Q2

From both Figure 77 and 78, it can be seen the majority of stakeholders within Chesapeake packaging were aware of the initiative and had some information over the aims and objectives.

The results from the perceptions survey indicated that 72.9% of the survey respondents were either aware or fully aware of the programme, with a further 20.8% knowing that the programme existed. Only 6.8% of respondents indicated that they were not aware of the programme, although this rose to 15.8% when questioned about the specific objectives of procurement. On the detailed strategy a lack of information was cited by 36.3%. On further examination, where people had been involved in a procurement process, then the information regarding the approach was communicated effectively. The high numbers of respondents who indicated that they were not aware of the approach was typically due to the fact that they had not yet been part of a procurement exercise.

4.6.2.5 Governance

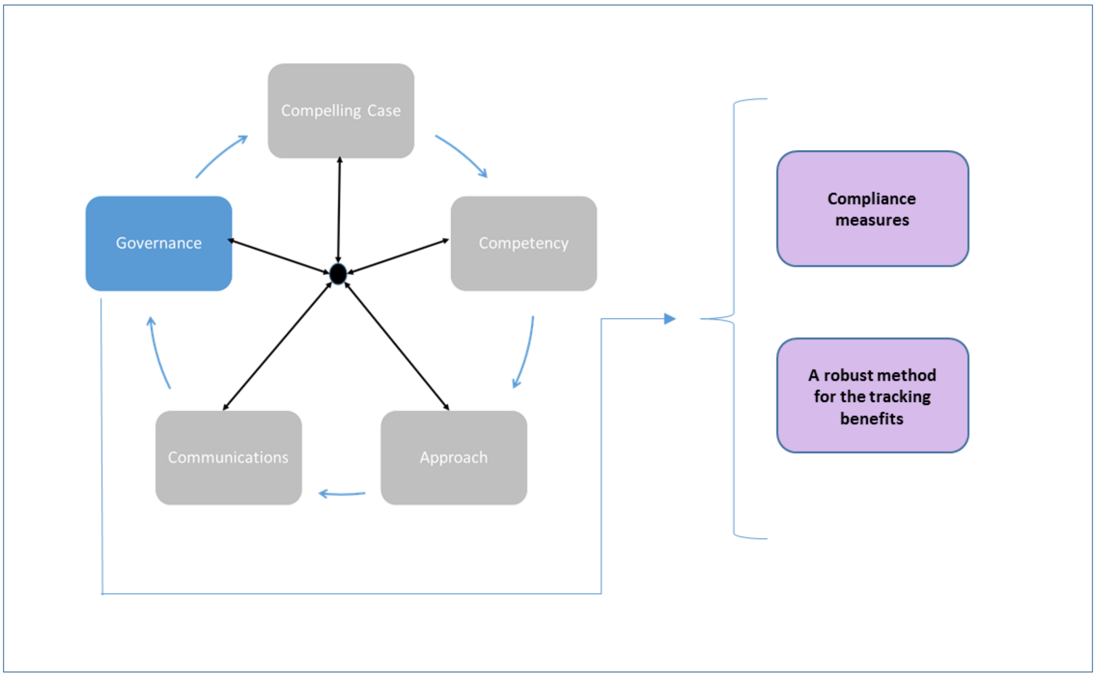


Figure 79 - Governance (With sub-factors)

The activity regarding governance, and the introduction of the white-book process was identified as another key factors in increasing the level of credibility of the programme with the stakeholders and the CFO in particular. The conversations at the executive steering committee meetings moved from "I don't believe the savings" to "Where has the benefit gone?", which was a much more productive debate. In reality the savings did not necessarily benefit the bottom line for a number of reasons including: -

- The procurement benefit was eliminated due to the sales function being forced to accept lower prices from their customers. In this case the procurement benefit mitigated margin erosion.
- The procurement savings were related to an indirect area of spend e.g., maintenance, repairs, overhaul (MRO), and the functional department spent the money elsewhere.

In the majority of cases however the overall business margins increased in relation to the savings delivered. The above case did however previously cast doubt over the procurement savings, and post transformation much less time and energy was spent in justifying the numbers. It can be concluded therefore that the issue of trust and credibility again play a part in the acceptance of the procurement transformation initiative, although once there was a degree of confidence, then the process worked more smoothly.

4.6.2.5.1 Perceptions Survey - Governance

There were two questions that related to the governance element. Question 16 (Figure 80) addressed awareness of the system although the white-book process was predominantly a finance system, so there was a low expectation of wider awareness, and question 17 (Figure 81) which addressed the perception of whether benefit had been delivered within the business unit.

Q16. How aware are you of the "White-book" process for the tracking and verifying purchasing savings?

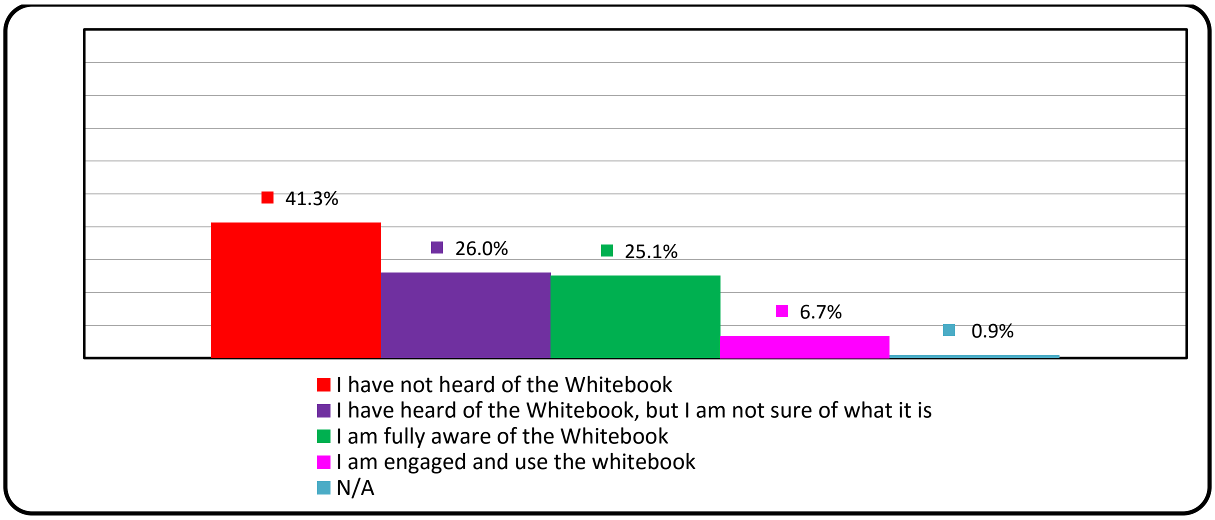


Figure 80 - Perceptions Survey Q16

Q17. I believe that there has been benefit from the activity delivered into my business unit area.

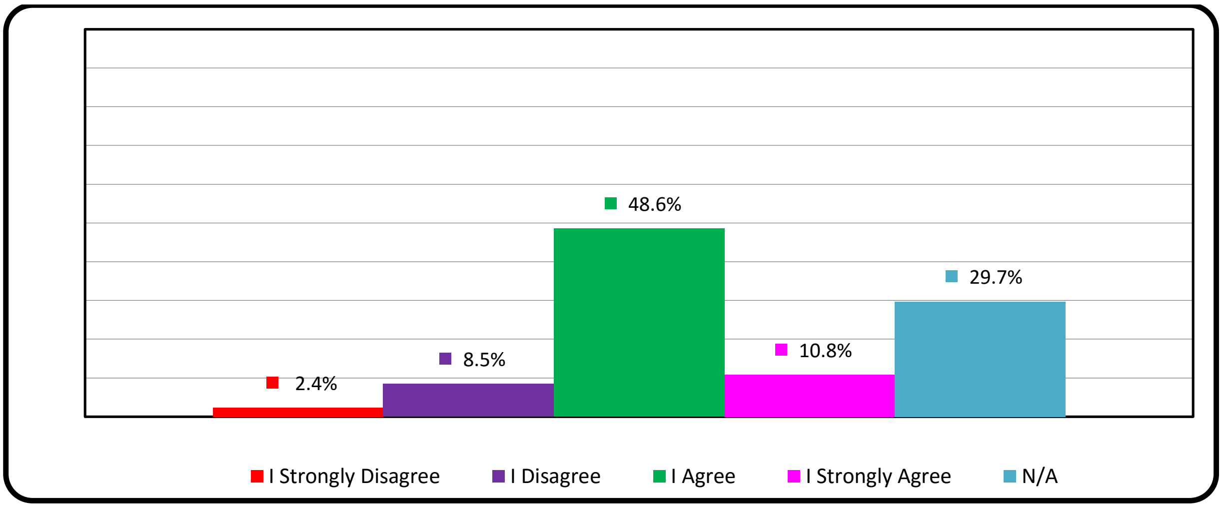


Figure 81 - Perceptions Survey Q17

As expected there was a high proportion of respondents (41.3%) who were not aware of the white-book governance process, although the majority agreed that benefits from the procurement programme had been delivered within their own business units.

4.6.3 The Interaction Between the Elements

Objective 2b was determined in order to Investigate the inter-relationship of the identified key factors (Figure 82). In reality making specific conclusions is extremely difficult, however most of the elements have a degree of overlap, which is why the model should be seen as a holistic tool. One way of assessing this would be to take a scenario where one element of the model was not addressed, in order to understand and predict the impact on the others.

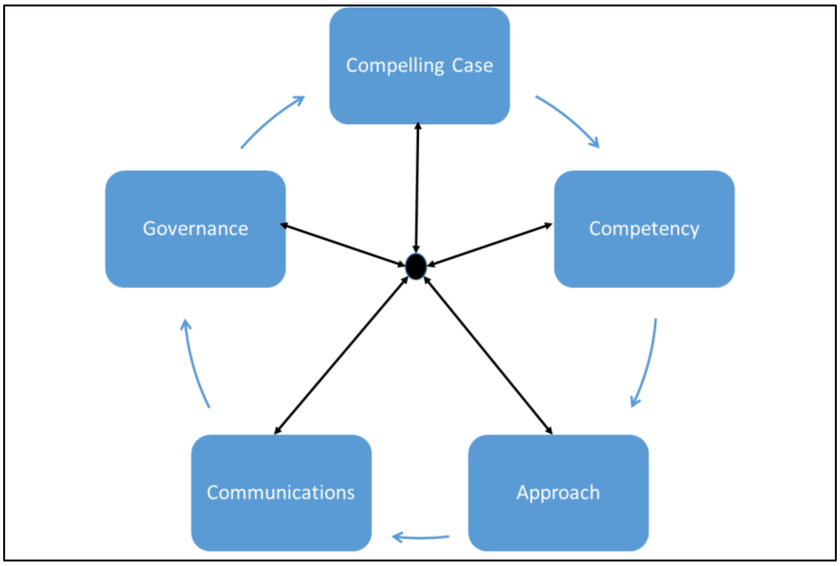


Figure 82 - Interaction between the Elements

For example, if the compelling case was low, or not promoted within an organisation, then it is likely that procurement is not perceived as strategic and therefore does not have direct access to the decision makers within an organisation. The CEO is likely not to be engaged directly, and therefore the senior management will not see the initiative as a priority, and gaining buy-in from the organisation would therefore be more difficult. This exact scenario was described by one of the contributors during the first expert session, in relation to his company operating within the pharmaceutical industry. His experience was one of frustration within the organisation and a sense of constant battling and trying to justify his position within the business. With a low compelling case, therefore all other factors would be adversely affected.

If the competency factor was not pushed, then it is likely that the situation would resemble the start point of the Chesapeake Packaging intervention. This was typified through a number of people who were not succeeding or underachieving in their positions, with the wrong skill-set, knowledge base and competency profile. Chesapeake, prior to the intervention, had a high turnover of procurement staff who would take with them any knowledge that they gained, and any new person having to start from a zero base. Motivation was poor and procurement's status within the organisation was low. However, with the right people in position with the right skills, knowledge and competency, there can be a significant change to the paradigm. In the Chesapeake example, the people with a high "drive for excellence" did what it took to get the job done. Their competence for influence and communication built bridges, trust and therefore credibility with the key stakeholders, opening up opportunities as the businesses would actively look for their support. The right people would develop an approach that was sympathetic to the business objectives, and would build longer term relationships with key suppliers.

The right approach builds credibility, and is supported by the businesses as they believe that they can directly influence the approach taken. It should be a case of "doing with" the business, rather than "doing to". However, the wrong perceived approach will result in a loss of credibility, and the active undermining of the programme, as was experienced within the early phases of the Chesapeake case study.

Overall communications and marketing directly supports and reinforces the compelling case, and serves to improve the standing of procurement within the organisation. The high degree of influence and communication competency demonstrated within the people profile ensures that this remains an important priority for the procurement team.

Governance is the check and balance that again provided credibility, through there being a robust mechanism for the independent verification of savings to the business. The savings story is essential to reinforce the compelling case, and is the one of the key factors within the case study.

As indicated at the beginning, it is very difficult to clearly determine the interaction of the elements from this study and should therefore be considered for future research, however, it is proposed that all the elements of the procurement effectiveness model need to be considered concurrently. The model therefore needs to be seen as holistic and integrated, where by missing any of the elements in isolation, the overall transformation be negatively affected. The procurement effectiveness model could also be used as a diagnostic tool in order to assess procurement transformations that are not meeting the expectations of the key stakeholders in order to identify what is going wrong.

4.6.4 Overall Effect

The procurement transformation programme within Chesapeake Packaging was a major change initiative for the organisation, and the procurement team especially. The start point was one of traditional procurement that was seen as a reactive, paperwork intensive clerical function that focused on transaction processing, and taking an adversarial, arm's-length position with their suppliers (e.g., Sagev and Gebauer, 2001; Lindgreen, 2009). At the end of the programme, procurement was represented at the top table and was influential over the strategic direction of the enterprise as a whole. The procurement effectiveness model was used as a basis for the implementation of the change programme, and all factors were addressed to a greater or lesser extent.

The baseline was set from the previous consultancy led initiative during the two years preceding the implementation of the model, and the approach adopted that used the procurement effectiveness model was radically different to what had gone before. All dimensions of the model were covered, although some elements received a greater emphasis as both strengths and weaknesses were identified during the As-Is analysis phase.

Savings were identified as the key measure that would be used to determine success, although a balanced approach was taken in order to ensure the long-term viability of the programme. Savings were also used as a vehicle to build credibility which was required in order to open up the opportunity to do more of the things that were strategic and business critical, e.g., demand management etc.

In terms of savings performance, a new savings governance process was adopted (the white-book process). The existing savings activity was re-assessed against the revised governance process resulting in savings delivered of less than £1m, and a potential programme in place that could identify up to £5m. During the first five months of the programme, savings performance actually retracted, although the overall plan potential remained at around £5m. This retraction of the savings forecast represented the impact of the revised governance rules, and a higher focus on the integrity of the savings resulting in the elimination planned savings activity that had no substance or a low confidence of implementation. During this time, focused activity on the compelling case, competency and the approach was implemented. After May, there was a steady improvement in the both the savings results and the forecast resulting a programme benefits forecast of just under £30m showing an improvement of 440% over three years. The delivered savings improved from less than £1m to over £20m. Additionally, working capital projects delivered over £30m. The savings performance over time is shown in Figure 83.

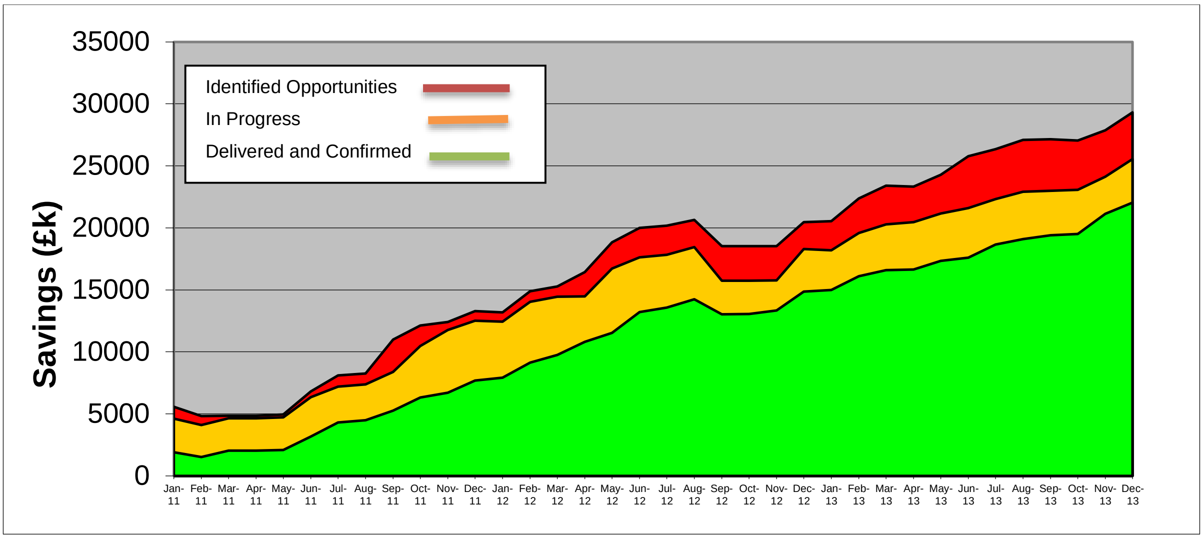


Figure 83 - Graph of Savings Performance

As a percentage of addressable spend, this equates to a savings performance of ~7% for each of the three transformation years, which compared favourably with the benchmark identified by KPMG (Nixon / KPMG, 2012).

The savings performance was therefore extremely positive, although additional benefits from the procurement function included: -

- The establishment of procurement as a service / outsourced service provision as a potential revenue generator.
- Procurement activity reinforcing Chesapeake's strategic position with key customers.
- Better commercial terms with key suppliers in order to manage supply volatility.
- A procurement and supply organisation that was fit for purpose for a growing packaging business.
- An improved level of profitability through the delivery of savings.
- An improved level of Working Capital management through the effective management of payment terms and raw material stocks.
- Improvements to Enterprise value through the development of an organisation that was seen to be delivering and adding value to the organisation.
- An improved approach to risk management in order to proactively mitigate supply chain risks before they materialise and where there were issues, a timelier resolution.
- Improved standing and reputation of procurement with the wider organisation - movement of procurement from being a business by-stander to an integral part of the strategic decision making process.

- Improved engagement and collaboration with key stakeholders and other areas of the organisation including Programmes, Operations, Finance.
- Improved levels of support to the bid process from the procurement and supply chain organisation resulting in a lower cost base for bids resulting in a more competitive new product offering.
- Improved motivation of the procurement and supply chain staff and a more proactive approach to getting things done in the organisation, rather than providing excuses as to why things have not happened.
- Improved engagement and collaboration with key supply partners and improved levels of supply performance (in terms of Quality, Cost & Delivery) and innovation.

4.6.4.1 Perceptions Survey - Overall Effect

From the perceptions survey there were two questions that addressed the overall performance. The first (question 14 - Figure 84) addresses the overall perception of effectiveness, and the second (question 19 - Figure 85) addresses the perception of performance against the previous, consultant led programme.

Q14. In your opinion, how effective is Group Procurement in terms of adding value to the Chesapeake organisation?

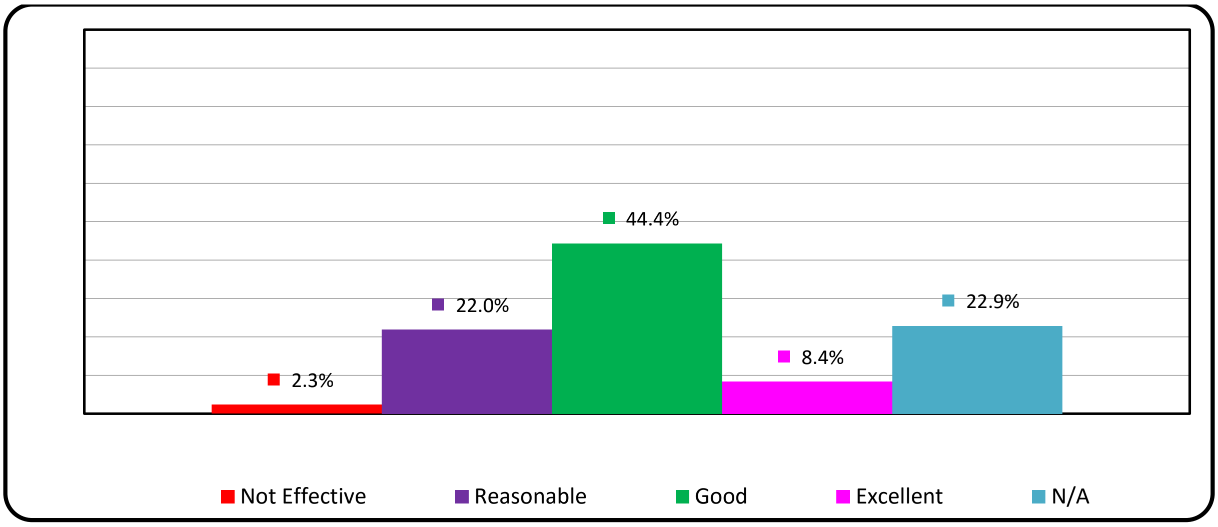


Figure 84 - Perceptions Survey Q14

Q19. Is the current procurement programme more effective than the previous consultancy led activity?

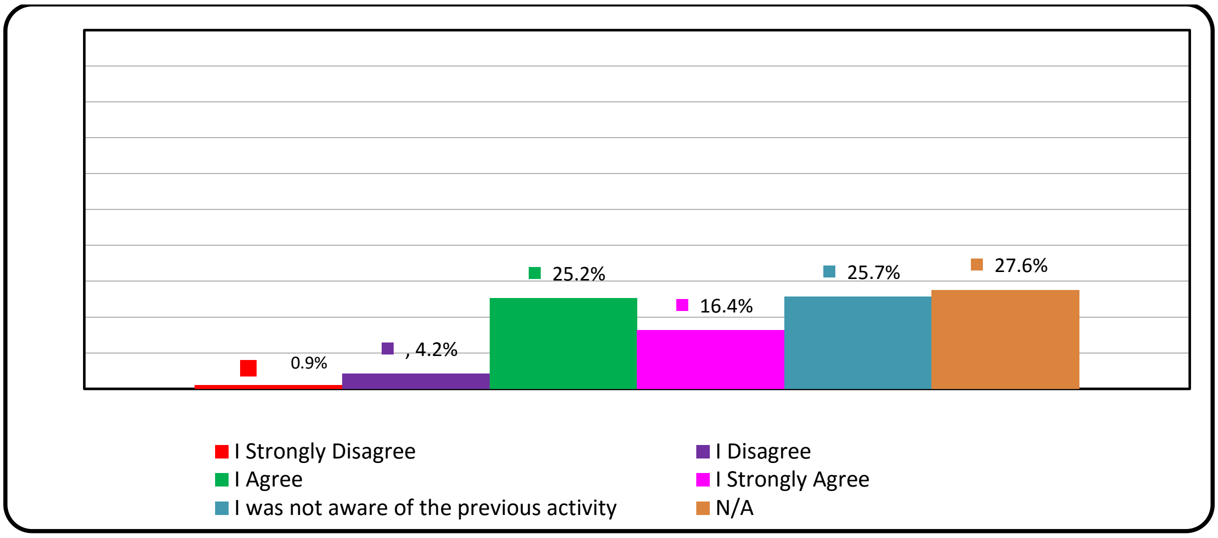


Figure 85 - Perceptions Survey Q19

In both cases (Figure 84 and Figure 85), the feedback is overwhelmingly positive about the programme, although there was a high proportion of respondents who were not able to make a judgement and assigned a not applicable (N/A).

5 OVERALL CONCLUSIONS

The research programme was designed to explore the factors that are important to consider when looking to optimise procurement or when embarking on a procurement transformation programme. In addition, the aim was to create and test a model for procurement effectiveness that could be used as a basis for future improvement activity. Three research objectives were stated at the beginning of the research programme, namely: -

- Objective 1 - Define Effective Procurement
- Objective 2 - Develop a Procurement Effectiveness Model (PEM)
  - Objective 2a - Identify the key determinant factors for Procurement Effectiveness
  - Objective 2b - Investigate the inter-relationship of the key determinant factors
- Objective 3 - Determine the effect of applying the PEM in an industrial application

The research was conducted within five phases (Figure 86), commencing with the definition of successful procurement, followed by the development of the procurement effectiveness model that was subsequently tested within the Chesapeake Packaging longitudinal case study.

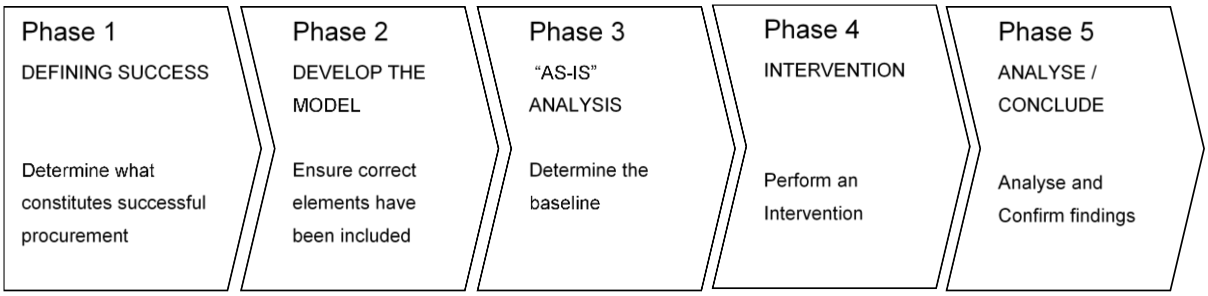


Figure 86 - A Phased Approach

This section summarises the research against the objectives, details the contribution (to theory and practice), identifies the limitations of the study, and indicates opportunities for additional research.

5.1 Research Objective 1 - Define Effective Procurement

Research Objective 1 was established as there was no clear definition of effective procurement that was suitable, and that could be applied to the Chesapeake Packaging case study. Throughout the literature review and Phase 1 of the research programme, a number of issues were identified that needed to be resolved before a suitable definition of effective procurement could be achieved including; the background of stakeholders, the compelling case, perception and role of procurement. These issues could be seen as antecedents to the creation of a suitable definition that could be applied within a particular scenario, as it was found that the definition of effective procurement was situation dependent and subject to a number of different influences.

The development of a definition for effective procurement should therefore be considered against Figure 87 in that the stakeholder experience, perception of procurement and business need are influential over what would be an acceptable role, scope and objective. Once these are confirmed then both the definition of success and associated measures of performance can be ascertained.

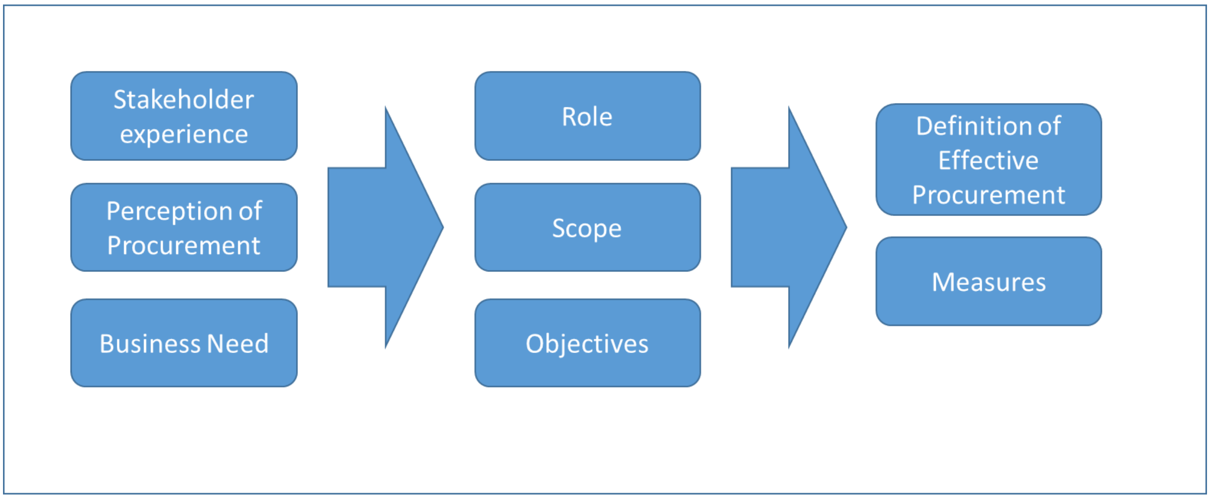


Figure 87 - Definition of Effective Procurement

In the majority of cases, the definition will be savings based, although to avoid the "procurement dichotomy" (see section 5.1.1), savings under these circumstances should be used as an entry ticket to build trust and credibility and to open up the opportunity to implement a wider and more balanced approach to procurement that is more aligned to the business need.

5.1.1 Savings as a definition of success, and the Procurement Dichotomy

Much of the literature links procurement effectiveness to savings (e.g., Lindgreen, 2009; Beidelman, 1987; Thompson, 1996 etc.). The majority of the stakeholders interviewed during Phase 1 support this view. A deeper analysis suggested however that this was not necessarily the full picture, and that the requirements on procurement should actually be based on a full and in-depth review of the requirements of the business. It was perhaps most clear from the interviews from stakeholders within the pharmaceutical industry where risk and reputation management was initially seen as more important than savings from within the procurement function.

It could be argued, that a focus on cost reduction is in response to the new and developing "expectations" on professional procurement from both practitioners and stakeholders. It may well be one of the new “mental models” (Hult, et al., 1999) that the industry has to contend with. However, the focus on tactical savings in isolation may lead to a drop-off of performance over time, and could therefore reinforce the procurement dichotomy in relation to short and long term objectives, i.e., that over time a degradation of performance due to the focus on short-term tactical savings may well result in the programme being cancelled or significantly altered. There are a number of potential issues regarding this tactical savings based approach including: -

- By focusing on cost reduction, decisions can be made that are short term to the business e.g., compromises to the choice of supplier, favouring those that are able to provide cost reductions rather than suppliers that are strategically right for the business
- Compromises on quality and delivery performance may be made
- Without the attention to medium and long term opportunities, the procurement initiative may “run out of steam”, after 3 - 4 years, and may be one of the reasons that initiatives do not become a permanent fixture within the corporate structure
- It is when things go wrong in the supply chain that this focus on cost reduction can be a significant risk to the organisation

Therefore, in order to ensure the viability of the “new” procurement approach, the objective of supporting the business model with more than simply ticket price savings needs to be at the heart of the procurement initiative. Short-term tactical savings activity can be the “entry ticket” for the organisation to support the procurement programme (providing a basis of trust and credibility), although this needs to expand into other areas and rapidly establish the function as critical to the future success of the enterprise. The analogy to Herzberg’s dual factor theory (Herzberg, 1987), has been made in relation to savings being a “motivator” and other factors such as quality and delivery performance, risk management etc., being equivalent to Herzberg’s “hygiene factors” and as such create dis-satisfaction when absent. Without the necessary investment of time in the “hygiene factors”, the end result may be the cancelling or a significant change to the programme, as has been seen by organisations flip-flopping between centralised vs decentralised procurement (Nixon / KPMG, 2012). It may therefore be wise for a procurement transformation lead not to focus all of their time and effort on the short term delivery of savings, but to have a more balanced approach to value enhancement in order to ensure the continued viability of the activity.

5.1.2 Final Definition of Effective Procurement

The previous two sections conclude that the definition of effective procurement is situation specific and depends on a number of influences including stakeholder experience, perception and business needs. A single and generic definition of effective procurement is therefore difficult to describe. However, for the purposes of this study effective procurement was defined thus: -

> *Effective procurement is where the buy-side of the business has achieved a position that is fundamental to the enterprise and drives the achievement of business objectives taking consideration of stakeholder expectations, perceptions and business requirements.*

In the case of the Chesapeake Packaging case study, the clear and over-riding requirement was initially for the delivery of savings, although this was based on the expectations and perceptions of the key stakeholders who, in the main, had quite traditional mental models (Hult, et al., 1999) of what a procurement function could do for the organisation. By pursuing these objectives in isolation, it is likely that the procurement dichotomy detailed in section 5.5.1 would have prevailed ultimately leading to the curtailment of the procurement programme. It was the tangible effects of risk management (in the case of the board shortage), customer cited differentiation (based on professional procurement within the organisation), and the development of additional revenue streams that were the catalysts for the organisation to start to perceive procurement differently.

Throughout the transformation programme, the position of procurement changed from initially being seen as a “savings” organisation, to one of increasing influence over the achievement of the overall company objectives. Procurement’s definition of success effectively changed throughout the transformation and moved towards the definition cited above. It successfully achieved significant influence over the business, and became integral to the achievement of the business objectives (as well as creating new objectives e.g., procurement as a profit centre), however this was only possible once the expectations, perceptions and specific business requirements were considered. In the early part of the transformation activity savings performance was the clear and over-riding measure, although towards the end of the programme the required groundwork had been achieved to widen the scope in order to be more aligned with the requirements of the business.

In summary, the definition of procurement cited above is valid, although in application there needs to be a recognition of the influencing factors as stated, and that it is likely that the definition accepted within an organisation would need to evolve from a situational dependent start point.

5.2 Research Objective 2 - Development of the model

The provisional procurement effectiveness model (Figure 88) was initially created from the literature review.

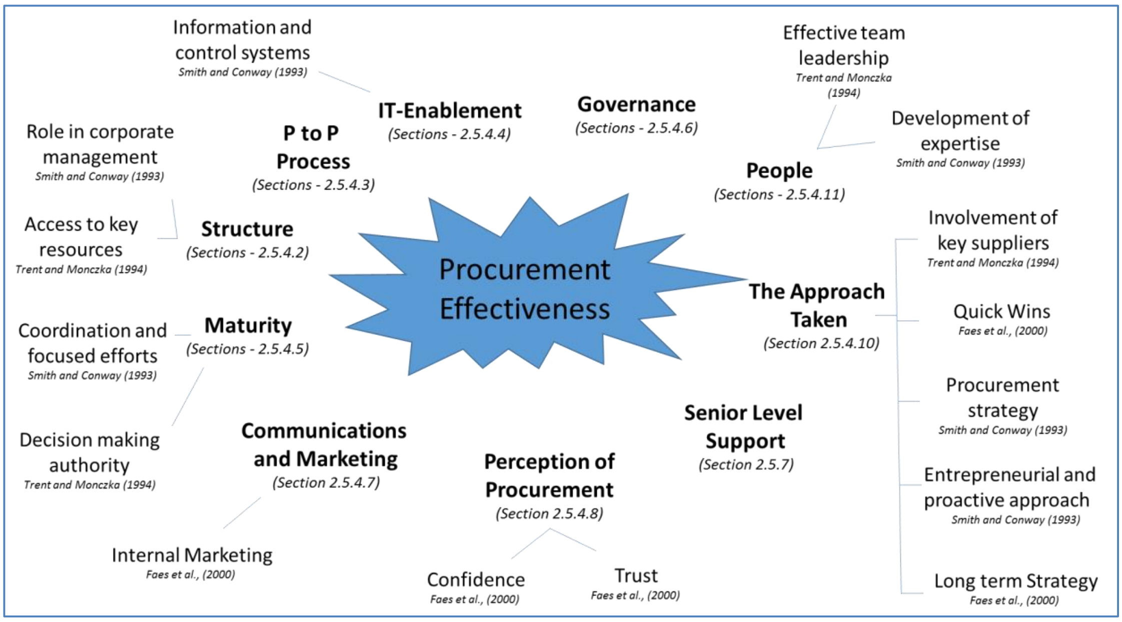


Figure 88 - Provisional Procurement Effectiveness Model

Additional input from the key stakeholder interviews, and the expert sessions enabled the model to be enhanced, then restructured through the grouping of elements into summary factors. Further detail was determined regarding the sub-factors from the expert sessions in order to create a model that could be used for directing the procurement transformation programme within the Chesapeake Packaging case study. The final model (Figure 89) has retained much of the input from the literature and therefore served to build upon the existing knowledge. The model ultimately provides a holistic view of the important factors and their interactions that should be considered when undertaking a procurement transformation.

An example of this would be the position of Cox (2015) in relation to the power perspective linked with Kraljic (1988) and Steele and Court (1992)’s position on a portfolio approach to procurement strategy development. Relative power within a supply dynamic is clearly important, although unless procurement is seen as influential within the business (i.e., the “compelling case” factor), and without the right people with the right skills / knowledge / competency (Bartram, 2005), (i.e., the “competency” factor) then it is likely that the supply chain will not be optimised, and valid supply strategies fail. It is therefore the interaction of all of the elements of the model that provide a view of which elements need to be considered in order to ensure that the buy-side of the business is optimised.

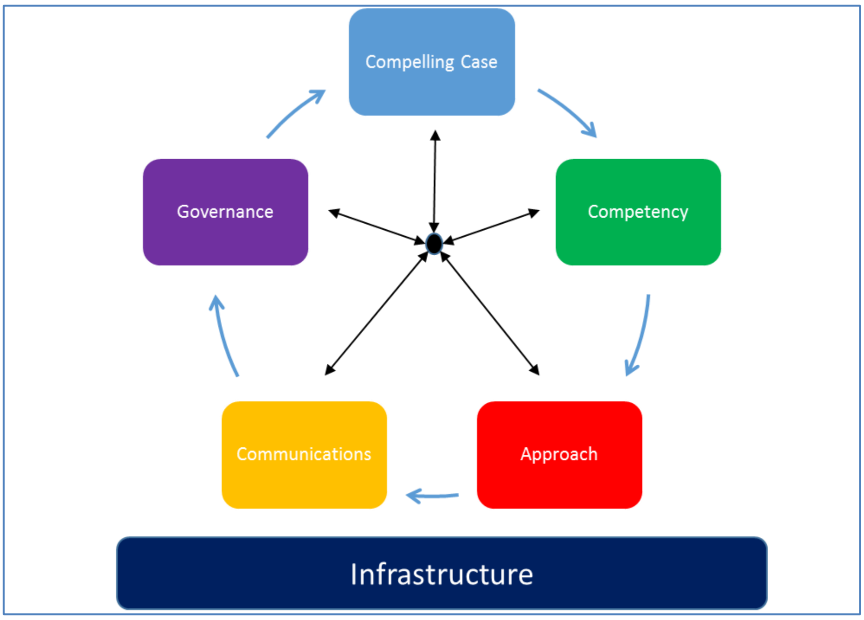


Figure 89 - The Procurement Effectiveness Model

Objective 2 - Develop a Procurement Effectiveness Model (PEM), and Objective 2a (identify the key determinant factors for procurement effectiveness) has therefore been achieved. Objective 2b (investigate the inter-relationship of the key determinant factors) was assessed following the application of the model within the Chesapeake Packaging case study.

The development of the "Compelling Case" factor came predominantly from the stakeholder interviews, and was reinforced through the expert sessions, and is an area that is currently not fully explored within the existing literature. This initial "reason for procurement" was seen as essential, and that "selling the benefits" of procurement within the enterprise was seen as a weak point for procurement generally. The compelling case for procurement was seen as a fundamental building block that, if absent or weak, would make the task of procurement transformation more difficult within an organisation. This point was reinforced during the first expert session where one contributor spoke about the absence of this factor within his organisation being the reason for significant frustration and a lack of progress against his objectives.

The compelling case element is supported by a number of authors (including Pattersen et al., 2000; Fassoula, 2006; Chan and Chin, 2007; Carr and Smeltzer, 1997; Lajara and Lillo, 2004; in relation to senior level support, and Trent & Monczka, 1994; Driedonks et al., 2014; and Rajajopal and Bernard, 1994; in relation to the authority to act).

The competency factor focused on the people skills, knowledge and competency, in order to ensure that the people in procurement had the right skill set for the effective management of procurement within their own particular organisation. The specific skills and knowledge profile was seen as situation specific, however there were a number of competencies that were deemed as common and key for effective procurement. “Drive for Excellence” was determined as the ability to get things done, and to overcome obstacles in order to achieve objectives and was aligned with “Influence and Communication” so that things get done from a basis of influence i.e., “done with” the stakeholders within an organisation rather than “done to”. “Concern for Order and Detail” was another key competency that was seen as important for the development of data driven strategies and for the building of credibility within the stakeholder network. This focus on the people aspects is supported by Bartram, (2005) in relation to competencies and Hult et al., (1999); Hater and Bass, (1988); and Keller, (2006); in relation to people attributes.

The “approach” element looked at the approach taken to supply chain management and the development of effective procurement strategies. The expert reviews determined that the specific approach adopted within an organisation would be situation dependent however there were factors that were more general and were common, including; customer and business orientation, suitable organisational operating structure, total cost management approach, risk management, active supplier management, strategy development, innovation development, efficiency of process.

One of the key findings was the approach to supplier relationship management where the portfolio approach cited by Peter Kraljic (Kraljic, 1983), was aligned with the supplier perspective defined by Steele and Court (1993). This combination of the two theories (i.e., customer and supplier view) allows the procurement professional to assess both the supplier view and the customer view in order to determine the right approach to supplier management. It was also concluded that the work of Cox (2015) in relation to relative power needs to be also intertwined within this approach to ensure that a valid strategy is developed.

Another key finding included the adoption of “boundary-less” procurement, and an end-to-end supply chain approach, aligned with a total cost of acquisition philosophy. This facilitated the procurement professional to look at all aspects of the business and its wider supply chains in order to identify opportunities for improvement and overall cost reductions rather than just “ticket price” reductions. This is supported by a number of authors (including: - Sagev & Gebauer, 2001; Lindgreen, et al., 2009; and Carr & Smeltzer, 1997).

Communications and marketing was deemed as another area that procurement professionals typically did not excel, and was linked to the compelling case. Objectives management and both internal and external communications were factors that could either support or undermine a procurement initiative, and provide a vehicle for the building of credibility. Mental models

(Hult, et al., 1999) figured strongly throughout the stakeholder interviews and the expert sessions and were confirmed during the action research. Trust was also a recurring theme, and the position cited by Brookes et al., (2007) and Moreton et al., (2004) in relation to influence and boundary-spanning activity is supported within the communications factor. Objectives based policy deployment (Chan and Chin, 2007), was also confirmed as an important contributor.

Trust and credibility are also common themes that run throughout this research programme and governance was identified as an important factor. Effective governance was seen as a prerequisite in the building of credibility as it would provide a degree of independent verification in regard to the procurement savings declared. This supports the position of Gershon (2004) from a public sector perspective and Nixon / KPMG (2012) from an industrial perspective.

Overall, the procurement model was well received and was perceived as providing a useful framework that could be used as a basis for the development of a robust and pragmatic approach to procurement effectiveness and could provide a both a diagnostic framework, and a roadmap for an organisation to improve its procurement effectiveness.

5.3 The link between the definition of effective procurement (objective 1) and the Procurement Effectiveness Model (objective 2)

The definition of effective procurement as discussed in section 5.1, defines the “What” i.e. what should procurement be within an organisation. The Procurement effectiveness model (figure XXX) defines the “How” i.e. how to achieve effectiveness as defined. As discussed previously the definition of effective procurement is likely to be situation dependent and will therefore have a direct influence the emphasis within the different elements of the model that is applied. It would be unwise to adopt a formulaic approach to the implementation of a transformation programme that is based on the model, although it should guide the practitioner into considering the link between the elements of the model and the situation specific definition that needs to be created. The definition (objective 1) or “What” is clearly linked to the model (objective 2) or the “How” as an antecedent and as such would need to be considered first before an implementation programme based on the model is developed and implemented.

5.4 Research Objective 3 - To Determine impact of applying the PEM

The overall effect of adopting the procurement effectiveness model within the Chesapeake Packaging is difficult to quantify. Significant improvements were made within the organisation, and the key metric of delivered savings increased significantly. It is however virtually impossible to say that this improvement was down to the model, as a different approach could have yielded different results. If the consultant led activity had been expanded, it is impossible to estimate what the end result would have been. It can however be concluded that previous procurement initiatives undertaken the company had failed, and the consultant led initiative had at best flat-lined.

Intuitively the approach taken utilising the procurement effectiveness model as a basis was radically different to both the existing approach, and other transformations managed by the author. If you take the benchmark from the KPMG (2012) analysis, then they suggest that savings performance of 4.4% is considered as world class. The Chesapeake Packaging programme yielded circa 7% and should therefore be seen as a positive result. Additionally, the procurement perceptions survey indicated a high level of awareness within Chesapeake Packaging of the more strategic role of procurement within the business, although this was clearly following a communications programme targeted at the stakeholders within the business. From the procurement perceptions survey within the Chesapeake case study (taken at the end of the transformation programme) over 89% of respondents agreed that there had been benefit from the procurement activity delivered into their business unit area, and 67% of respondents confirmed that the new procurement programme (based on the procurement effectiveness model) was more effective than the previous consultant led programme.

In addition to the delivery of savings, the procurement transformation based on the model delivered other significant benefits including: -

- Improved standing and reputation of procurement with the wider organisation - movement of procurement from being a business bystander to an integral part of the strategic decision making process.
- Positioning procurement as a strategic function within the wider business, including the establishment of procurement as a service / outsourced service provision as a potential revenue generator, and using procurement as a differentiator within the sales process.
- Improved risk management and end-to-end supply chain management, linking front-end (customer) demand to back end supply.

- A procurement and supply organisation that was fit for purpose for a growing packaging business, and one that added enterprise value as assessed during subsequent sales based due-diligence processes.
- An improved level of working capital management through the effective management of payment terms and raw material stocks.
- Improved engagement and collaboration with key stakeholders and other areas of the organisation including Programmes, Operations and Finance.
- Significant improvement to procurement staff motivation and retention.

In summary, the feedback from the key stakeholders during the end of programme debriefing sessions were extremely positive, especially from the CFO who had previously been critical of the procurement programme. Other stakeholders, including the previous CEO, the current CEO and the business unit presidents were all extremely positive and over £26m of EBITDA benefits had been delivered, and over £30m of working capital improvement. The programme achieved a payback in only 10 weeks!

Chesapeake Packaging was subsequently sold, and the new Private Equity owners in post-acquisition discussions confirmed that the procurement programme had been influential in the ultimate valuation of the business.

5.5 Contributions

The contributions from this research have been summarised into two areas; contribution to theory and contribution to practice.

5.5.1 Contribution to Theory

The key contribution from this research is the development of the procurement effectiveness model, which both builds upon existing research and applies new thinking to the development of this holistic approach to the improvement of procurement within an organisation. The procurement effectiveness model confirms much of the current academic literature and provides a framework that attempts to provide a way of assessing how the different elements interrelate.

From the key stakeholder interviews the relative importance of the compelling case to change and the role of senior management is strengthened. This factor was also strongly supported during the expert sessions and builds upon the academic contributions (e.g., Pattersen et al., 2000; Fassoula, 2006; Chan and Chin, 2007; Carr and Smeltzer, 1997; Lajara and Lillo, 2004; Trent & Monczka, 1994; Driedonks et al., 2014, and Rajajopal and Bernard, 1994).

People skills, knowledge and competency has been widely appraised within the existing literature, (e.g., Erridge and Perry, 1993; Bartram, 2005; Cox, 1997; Hult et al., 1999, Hater and Bass, 1988; Byatt, 2002; Driedonks et al., 2010; Fawcett et al., 2008), although specific competencies for procurement per se have not been identified. This research has provided competency framework specific to procurement (see section 4.5.5), which was then tested against performance measures (see section 4.6.3) that showed a degree of correlation between competence and performance. Although not statistically significant, there are sufficient indications of correlation to warrant further investigations.

A portfolio approach to procurement has been widely addressed within the literature (e.g., Gelderman and Van Weele, 2002; Wagner and Johnson, 2004; Duboisa and Pedersen, 2002; Zolkiewski and Turnbull, 2002; Bensaou, 1999; Olsen and Ellram, 1997). However, the combination of Kraljic, (1983); and Steele and Court, (1992), portfolio analysis that provides both the supplier and customer view to be determined in order to understand and predict certain supplier behaviours has not been widely addressed, and a such provides an additional viewpoint to the debate.

The work on communications (Hult and Nichols, 1999; Brookes et al., 2007; Hoegl and Gemuenden, 2001; van Weele & Rozemeijer, 1996) is supported and the work on objectives (Carr and Smeltzer, 1997; Lajara and Lillo, 2004) is actively tested as part of the programme.

Buvik (2002) highlighted a lack of empirical work focusing on governance, and this study helps to address this by explicitly identifying governance and part of the procurement effectiveness model, and through investigating the effects on the overall programme. It can be concluded that governance plays a significant part in the building of credibility and trust (Brookes et al., 2007; Moreton et al., 2004), which is critical to the overall success of procurement.

In terms of contribution, it is however the bringing together of the elements into the procurement effectiveness model that is the greatest contribution from this research programme.

5.5.2 Contribution to Practice

Many organisations are undertaking some form of procurement transformation (Deloitte, 2016), and this research would provide a useful diagnostic tool to programmes that were not delivering the expected results. This was a strong message from the expert sessions.

For those organisations that are planning to undertake a procurement transformation, then this model would provide a road map of activity that should be considered before undertaking such a venture.

For CPO’s, the clear message from the stakeholder interviews is the relative importance of developing the compelling case for change, and achieving the engagement of senior executives. Cascading this message through on-going and effective communication processes is essential and not typically found as a core skill of procurement staff. The competency framework and approach to the assessment and development of procurement people would also provide for a tangible and value added addition to procurement practice.

5.6 Limitations of the study

In general, the study was successful, although it is always possible in retrospect to identify things that should have been done differently. An example of this is the perceptions survey, which should have been done at the beginning as well as the end in order to quantify the improvements in perception.

Another improvement would have been to develop a scoring mechanism that could be applied based on the procurement effectiveness model factors and sub factors - the development of such a scoring mechanism would facilitate a more quantitative approach to the improvement seen within the factors and sub-factors and would allow for quantitative analysis of the inter-relation between the factors.

The development of the Procurement Academy had not sufficiently gained traction within Chesapeake packaging, and as such the effects of the implementation of this programme was difficult to establish.

The implementation of demand management approach was only partially implemented and its effects had not had sufficient time to realise the expected benefits.

Phase 1 activity was based on 11 interviews, which is insufficient for the development of full hypotheses, therefore observations were made that would in effect be pre-cursers to the development of hypotheses.

The procurement effectiveness model was only applied within a single case study, and therefore the findings are not at this stage generalizable without further application-based research.

The As-Is analysis was based on a two-year intervention from the consultants. It is difficult to assess what would have been the outcome after three additional years of activity had the consultant remained in place, so therefore any comparison of performance effectively assesses a two-year programme (from a standing start) against a three-year programme from a start point created by the consultant activity.

The issue of procurement function and transformation leadership (Hult and Nichols,1999; Hater and Bass 1988), was not addressed as it was the lead researcher who was managing the transformation programme, however this would be suitable for future research where the researcher is not immersed in the transformation.

5.7 Areas for additional research

There are a number of opportunities for additional research from this programme including: -

- The application of the model in different industries / organisations in order to assess the model's generalisability.
- The development of a scoring system for each of the determinant factors within the procurement effectiveness model - this would enable a quantitative analysis of the model's impact.
- More research on the competencies in relation to performance - larger samples would provide a greater degree of confidence in the correlation analysis.
- The prevalence and ways of subtle undermining of any activity and the degree of appearance of compliance.
- Salary vs Performance was an interesting relationship that could be explored in more detail.
- The impact of a performance related bonus scheme - differentiated by personality type.

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Appendix 1 - NVIVO Literature Coding

Node Structure
PEPPS
13/04/2016 16:03

Hierarchical Name	Number Of Sources Coded	Numb Number Of Co Of Coding Refer Reference s s
Node		
Nodes		
Nodes\\Associated Theories	21	34
Nodes\\Associated Theories\Game theory	1	3
Nodes\\Associated Theories\Other - Interesting	1	1
Nodes\\Background - History	11	19
Nodes\\Background - History\History	12	16
Nodes\\Background - History\Previous Research	1	3
Nodes\\Benefits - Issues	35	53
Nodes\\Best practice	4	10
Nodes\\Chesapeake Case Study	1	2
Nodes\\Chesapeake Case Study\Structure	1	1
Nodes\\Definition	14	29
Nodes\\Definition\Capability Sourcing	1	1
Nodes\\Definition\Competency	2	2
Nodes\\Definition\Efficiency	2	7
Nodes\\Definition\Glossary of Terms	1	3
Nodes\\Definition\Lean	1	1
Nodes\\Definition\Organisational Buying	1	1
Nodes\\Definition\Partnership	2	2
Nodes\\Definition\Portfolio	1	1
Nodes\\Definition\Resource Based View	1	1
Nodes\\Definition\Social Network Theory	1	2
Nodes\\Definition\Strategic	1	1
Nodes\\Definition\Strategy	2	2
Nodes\\Definition\Title	6	6
Nodes\\Definition\Transation Cost Economics	1	1
Nodes\\Definition\Value	1	2
Nodes\\Definition\What is Strategic Sourcing	3	3
Nodes\\Definition\World Class	1	1
Nodes\\Factors	24	62
Nodes\\Factors\Access to resources	3	4

Reports\\Node Structure Report Page 1 of 5

Hierarchical Name	Number Of Sources Coded	Numb Of Co Referen s	Number Of Coding References
Nodes\\Factors\Autonomy	2	5	
Nodes\\Factors\Benchmarking	4	6	
Nodes\\Factors\Communications, Marketing and Data	19	32	
Nodes\\Factors\Communications, Marketing and Data\Data	1	1	
Nodes\\Factors\Communications, Marketing and Data\Data (2)	1	1	
Nodes\\Factors\Communications, Marketing and Data\engagement	2	2	
Nodes\\Factors\Communications, Marketing and Data\Expectation Management	2	3	
Nodes\\Factors\Communications, Marketing and Data\Language	1	2	
Nodes\\Factors\Communications, Marketing and Data\Objectives	7	8	
Nodes\\Factors\Communications, Marketing and Data\Other Functions Integration	3	4	
Nodes\\Factors\Communications, Marketing and Data\Procurement Objectives	2	3	
Nodes\\Factors\Communications, Marketing and Data\Strategy Alignment	2	8	
Nodes\\Factors\Compelling Case	30	46	
Nodes\\Factors\Compelling Case\Background of Stakeholders	2	3	
Nodes\\Factors\Compelling Case\CEO Engagement	3	4	
Nodes\\Factors\Compelling Case\Function attractiveness	2	2	
Nodes\\Factors\Governence	8	14	
Nodes\\Factors\Governence\Independent Review	1	1	
Nodes\\Factors\Governence\TCO	1	1	
Nodes\\Factors\Infrastructure	2	4	
Nodes\\Factors\Infrastructure\IT enablement	11	14	
Nodes\\Factors\Infrastructure\Maturity	4	16	
Nodes\\Factors\Infrastructure\Maturity\Formalisation - Maturity	4	4	
Nodes\\Factors\Infrastructure\Organisational Structure	3	3	
Nodes\\Factors\Infrastructure\P to P process	5	8	
Nodes\\Factors\Infrastructure\structure	9	20	
Nodes\\Factors\People	28	64	
Nodes\\Factors\People\Buyer Behaviour	1	1	
Nodes\\Factors\People\Cross Functional Team	2	3	
Nodes\\Factors\People\Customer Orientation	1	5	
Nodes\\Factors\People\Decision Making	1	1	
Nodes\\Factors\People\Emotional Intelegence	1	1	
Nodes\\Factors\People\Empowerment	1	4	
Nodes\\Factors\People\Flexability + Adaptability	2	2	
Nodes\\Factors\People\Individual	2	4	
Nodes\\Factors\People\Influence and Communications	2	2	
Nodes\\Factors\People\Language Ability	1	2	
Nodes\\Factors\People\Leadership	9	37	
Nodes\\Factors\People\Literature review	1	1	
Nodes\\Factors\People\Negotiation	1	1	

Hierarchical Name	Number Of Sources Coded	Numb Of Co Refere s	Number Of Coding References
Nodes\\Factors\People\OPQ	1		11
Nodes\\Factors\People\Organisational	6		9
Nodes\\Factors\People\POINTER	1		2
Nodes\\Factors\People\Roles and Responsibilities	1		1
Nodes\\Factors\People\Skills and knowledge	11		26
Nodes\\Factors\People\Social Capital	1		1
Nodes\\Factors\People\Stakeholders	6		11
Nodes\\Factors\People\Strategic Vision	1		1
Nodes\\Factors\People\Team Orientation	2		4
Nodes\\Factors\People\Testing	1		1
Nodes\\Factors\People\Training	4		6
Nodes\\Factors\People\Trust	4		7
Nodes\\Factors\Perception - Procurement Status	13		24
Nodes\\Factors\Perception - Procurement Status\Integration with other functions	3		3
Nodes\\Factors\Performance Measurement	18		32
Nodes\\Factors\Performance Measurement\Reneumeration	2		6
Nodes\\Factors\Strategy and Approach	32		86
Nodes\\Factors\Strategy and Approach\Buyer Behaviour	1		1
Nodes\\Factors\Strategy and Approach\Category Management	1		1
Nodes\\Factors\Strategy and Approach\Continuity of Supply	1		1
Nodes\\Factors\Strategy and Approach\continuous improvement	3		4
Nodes\\Factors\Strategy and Approach\Cost Elemets	1		1
Nodes\\Factors\Strategy and Approach\Cost of Doing Business	1		1
Nodes\\Factors\Strategy and Approach\Cost Reduction	3		3
Nodes\\Factors\Strategy and Approach\Customer Focus	3		3
Nodes\\Factors\Strategy and Approach\Decision Making	1		2
Nodes\\Factors\Strategy and Approach\Demand Management	4		9
Nodes\\Factors\Strategy and Approach\Engineering out cost	3		3
Nodes\\Factors\Strategy and Approach\Game Theory	1		1
Nodes\\Factors\Strategy and Approach\Global Sourcing	1		3
Nodes\\Factors\Strategy and Approach\Incentives	2		2
Nodes\\Factors\Strategy and Approach\Issues	2		8
Nodes\\Factors\Strategy and Approach\Kraljic	2		2
Nodes\\Factors\Strategy and Approach\Link to business strategy	2		2
Nodes\\Factors\Strategy and Approach\Make vs Buy	5		9
Nodes\\Factors\Strategy and Approach\Management of People	2		2
Nodes\\Factors\Strategy and Approach\Methodology	2		3
Nodes\\Factors\Strategy and Approach\Organiational Policy	2		2
Nodes\\Factors\Strategy and Approach\Partnership	8		13
Nodes\\Factors\Strategy and Approach\Process	1		1

Hierarchical Name	Number Of Sources Coded	Numt Number Of Co Of Coding Refer Reference s s
Nodes\\Factors\Strategy and Approach\Purchase Objectives	3	3
Nodes\\Factors\Strategy and Approach\Relationships	18	54
Nodes\\Factors\Strategy and Approach\Risk Management	5	9
Nodes\\Factors\Strategy and Approach\SCM	1	2
Nodes\\Factors\Strategy and Approach\Suppier Selection	3	13
Nodes\\Factors\Strategy and Approach\Supplier Selection	2	7
Nodes\\Factors\Strategy and Approach\TCO-TAC	5	5
Nodes\\Factors\Strategy and Approach\Technology	1	2
Nodes\\Factors\Strategy and Approach\Transactional Cost Economics -TCE	1	4
Nodes\\Factors\Strategy and Approach\Value Based Approach	1	1
Nodes\\General	7	8
Nodes\\Interviews	0	0
Nodes\\Interviews\Approach	10	54
Nodes\\Interviews\Awareness and perception of Procurment	8	23
Nodes\\Interviews\Background of Stakeholders	9	20
Nodes\\Interviews\Benefits	1	5
Nodes\\Interviews\Change Process	1	1
Nodes\\Interviews\Comms and Marketing	9	26
Nodes\\Interviews\Compelling case	9	38
Nodes\\Interviews\Credability	2	4
Nodes\\Interviews\Definition of Success	7	20
Nodes\\Interviews\Example Procurement Transformations	6	11
Nodes\\Interviews\Expectation Management	1	4
Nodes\\Interviews\Governance	9	27
Nodes\\Interviews\Measures	4	18
Nodes\\Interviews\People	10	35
Nodes\\Interviews\People\Behaviours	1	1
Nodes\\Interviews\People\Development	1	1
Nodes\\Interviews\People\Drive for Excellence	1	1
Nodes\\Interviews\People\Influence	3	7
Nodes\\Interviews\People\Language	1	1
Nodes\\Interviews\People\Leadership	2	3
Nodes\\Interviews\Role of Consultants	1	1
Nodes\\Interviews\Role of senior management	7	19
Nodes\\Interviews\Stakeholder engagement	3	4
Nodes\\Interviews\Structure	1	2
Nodes\\Interviews\The Role of Procurement	4	8
Nodes\\Interviews\Time Management	0	0
Nodes\\Intro Comments	9	22
Nodes\\Intro Comments\Model Development	1	2

Hierarchical Name	Number Of Sources Coded	Numb Of Co Referen s Number Of Coding References
Nodes\\Public Sector Procurement	12	46
Nodes\\Public Sector Procurement\Differences between public and private	1	19
Nodes\\References	25	45
Nodes\\Research Methodology	11	48
Nodes\\Research Methodology\Important	1	3
Nodes\\Research Methodology\Mixed Methods	1	1
Nodes\\Research Methodology\Qualitative	1	1
Nodes\\Research Methodology\Quantitative	1	1
Nodes\\Scope of Activity	43	74
Nodes\\Transition from tactical to Strategic	16	41
Nodes\\Transition from tactical to Strategic\Barriers - Resistance	6	9
Nodes\\Transition from tactical to Strategic\Change Management	1	1
Nodes\\Underpinning Philosophy	2	2
Nodes\\Underpinning Philosophy\Interpretivist	1	1
Nodes\\Underpinning Philosophy\Positivist	1	1
Nodes\\Underpinning Philosophy\Realism	1	1

Appendix 2 – Interviewee profile and Interview Schedule

Interviewee	Position	Industry	General Comments	Date of Interview
Interview 1	Chairman and CEO of multinational company	Packaging	Background in finance and accounting	29/4/11
Interview 2	CPO	Pharmaceuticals	Background in accounting and finance	27/5/11
Interview 3	CPO	Pharmaceuticals	Background in procurement	27/5/11
Interview 4	Chairman and CEO	Manufacturing (Aerospace and Automotive)	Background in Engineering management and Quality	03/5/11
Interview 5	CPO	Pharmaceuticals	Background in Procurement	24/5/11
Interview 6	CFO	Aerospace	Background in finance and accounting	03/6/11
Interview 7	President / CEO	Manufacturing (Aerospace, Automotive, Chemical Industry)	Background in Engineering management	03/6/11
Interview 8	Managing Director	Various Industries and Consulting	Background in consulting	05/8/11
Interview 9	CEO	Packaging	Background in manufacturing including Automotive and packaging	08/8/11
Interview 10	Vice President	Packaging	Background in finance and accounting	08/8/11
Interview 11	CEO (Previously CPO)	Manufacturing / Aerospace / Consulting	Background in consulting, procurement and Aerospace manufacturing	05/10/11
I-Source Focus Group	Various, although typically CPO / Procurement directors	Various	Various	28/10/11

Appendix 3 – Example Interview Transcript

Dialogue
P - So the background to it was, if I look at what happened at XXXXXXXXX as an example, with a strategic sourcing programme and what I learnt at XXXXXXX, the way that they manage their suppliers, what we did at XXXXXXX and what has actually happened at XXXXXXXX, then I look around and I see some procurement transformations that are pretty good and others that actually don't work and the question is 'why don't they work?', so why aren't they delivering as much as they should deliver, or why aren't they integrated as much as they should be. So I started then as part of this research looking at it in terms of, 'what is it that makes the difference between something that is successful versus something that has failed', in the context of procurement transformation. Now this is looking at, focusing on procurement transformations and the research is quite wide in terms of, it could apply to any form of transformation and if I look again at what we were doing in XXXXXXXX where we were a listed company, XXXXXXXX changing into a private company, and then the integration of XXX sites from a sourcing perspective, that's just a fairly bog standard change programme.
P – In some organisations there's a real motivation to do it. Other companies you can look at is, it's a real trendy thing to do, to jump on the band wagon of a strategic sourcing change or whatever, and there is less of a compelling case and often that is depicted by engagement of the CEO in this process so the ones that are personally engaged compared to the ones that are quite distant. Again, XXXXXXX example, XXXXXXXXX who was CEO at the time, was incredibly engaged. It was his programme, and you had in a board room a load of people who would not say we are against this because it was XXXXXXXX'S programme. XXXXXXX then leaves and the reality comes out in terms of people do what they want, so that compelling case wasn't the one. If I look at the, there's a company called XXXXXXX Pharmaceuticals, they do a lot of the XXXXXXX stuff, so not a big name, but they are in Cambridge. The CPO there says he finds life really difficult because he doesn't get that support from the board.
So just before we get properly into it I have a consent form. I won't ask you to do it yet before you have gone through it, but Aston University are quite ethically minded, they have to be quite ethically sound
D - Don't we all these days?
P - Absolutely, these are designed for people or things like medical research where you can actually do harm. So there is hopefully no harm going to be done from this process!
P - So at the end there are some things that you will talk about and if at some stage you don't want to be part of this, that's absolutely fine. Even after the interview and when we go into the research, you can say you don't want your name used in it. Before anything gets published you can see it and make a choice then. So this just gives you an option. So you can pull out of this process at any time that you are uncomfortable about it..
D - Yeah, I mean my main, my only real concern... I am quite prepared to publicly stand by my opinions, the only thing I'd like is to see what the output is.
P - Yes, and that is what I can commit to you before anything gets published, I can run it by all the people who have contributed.
D - OK
P - So, I have got some, what's called a semi structured interview process, so there aren't set questions, it's just a journey. It's a journey in that in the areas that cover those, so basically

it's talking about what's your view? A lot of what we have talked about is already in there, so that's fine. But we will do a vague sort of you know, see where it goes, but there are some questions that I want to ask that are related to it, but it sort of starts off giving a bit of background for yourself for the record and also your experience of procurement and procurement transformations.
D - Ok! What, just a general ramble?
P - Yeah.
D - Ok. So I am a mechanical engineer. I studied here across the park in Imperial College went to work for XXXXXXXX about '78 and did a thick sandwich course. So the year before, 3 years at college, the year after and I actually went on to the manufacturing scheme in XXXXXXX. They were trying to professionalise manufacturing at the time so there was a fast track. XXXXXXXXXX was on the same thing.
D - Ok, yeah so, started out in a career in ops at XXXXXXX, worked on the factory floor. Manufacturing engineering then to start with then went into ops management but I did about 3 or 4 roles for them in progressively bigger areas and I ended up running an area that at the time was turning over about 50 million pounds and had about 400 people working for it but very much no P & L just cost management and operations management and I actually had a stint in procurement at that time and it was very interesting because I was the XXXXXXXXXXX purchasing rep at a company called XXXXXXXX and they had quite a complicated supply chain where for the XXXXX the engine would come out from XXXXXXX, it would be delivered into XXXXXXXXXX. The outer casing, the Nacelle would be made primarily be XXXXXXXX in California. They made the nozzle and the thrust reverser which are the complicated bits. Then XXXXXXX would ship those to XXXXXX who as a sub-contractor assembled the entire power plant.
P - XXXXXX was the sub-contractor?
D - XXXXXXXX were a sub-contractor to XXXXXXX and XXXXX were delivering directly to XXXXX, and XXXXXX were delivering that product to themselves effectively they had an area called XXXXXXX or something or other, and they then shipped it into the main the aircraft build lines. The problem was you had all sorts of competing agendas, XXXXXX were in all sorts of operational trouble. There was commercial stress between them and XXXXXXX. XXXXXX were agitated by quality. So the whole thing was a bit of a mess and I ended up doing about two years sitting in the middle of it and it was quite good fun because this was all before Email and mobile phone and all the rest of it. So effectively for most of the time you were on your own which for a 27/28 year old was quite scary actually and then we introduced XXXX and that disaster and then we introduced the XXXXX programmes and the XXXXX and that was a disaster so it gave me a real insight into what goes on in these interfaces, so I did that for a couple of years. I also had a stint in Japan. I worked on the factory floor in Japan, earlier than California, but I ended up leaving XXXXXX in the early 90's, similar reasons to you, kids in one place, job in another and it just wasn't working, so I went to work for XXXXXXXX in a small company that made valves for essentially oil and petrol industry, and I was the operations Director there, a pretty small company. We were turning over about £30 Million per year. I was on the board, that was my first role where I had direct responsibility for procurement and it was an old Midlands metal basher who was about 5 years too late in responding to the Chinese entering the market and what we tried to do was transform them from a commodity manufacturer to being an aligned supplier of emergency stuff to oil companies particularly the XXXXX when they got in trouble, so our raisin d'etre was when they took a refinery

down for maintenance and no shit they needed this 16 inch gate valve in whatever??? So I did that for 3 years and that was quite interesting because it was about the time the business unit lean was just kind of crystallising and the experience I had in Japan and the experience I had had in procurement roles, really led me to set up a more customer focussed organisation. So we went from operations, assembly, procurement, sales not planning, to 3 parallel business units that are autonomous resources and so on. So I did that for about 3 years, then I got poached out by XXXX because the guy who had been my mentor at XXXXX a bloke called XXXXXXX, he had moved over to be CEO at XXXXXX and they had a vacancy in the States and they thought I would be good for it. So I went and ran XXXXXXX, well I was the ops guy at XXXXXXX. The GM was an American and then when XXXXX came in I came back to Birmingham and I ran XXXXXXXX and then I got more and more involved in improvement programmes. So as you know I ended up running 6 Sigma for the group. But that all came to an end in 2002 when XXXXX came in and bought it and I didn't fancy staying around with XXXXXXX, so I moved to XXXXX XXXXXX. A really interesting Company. The first time I have worked for a Company that had a product that was so valuable that it's gross margin was 80%, or something ridiculous, it just made shit loads of money, and they made filtration and separation devices but not things like car oil filters it was things for harvesting proteins and bio-tech developments. They made devices for blood filtration that would strip out proteins. They were involved in a sort of lot of high tech engineering, situations where you needed very high levels of cleanliness, so the first XXXXX gear boxes for XXXXX, we ended up doing a project for them. They kept failing on the rigs so we went in, we had a service where we put filter packs on and all of a sudden they all start passing, and that was great. Then the chief engineer at XXXXXX goes 'right I want one of those filters in every XXXXXX that's built.' We were like forget it, no thanks, bye! It was no, no, no you must do it. So we had a bit of a nasty transformation where we became an automotive supplier.
P - I would imagine that would be quite a transformation!
D - It was terrible. We xxxx'ed it up completely. Then at the other extreme they did things like breathing filters for anaesthetics. So quite a broad base company looking to transform but really from fashion more than anything else, so no real driver. So I was there 3 years, running the operations for the process development business. It was about 700 million dollars turnover and pretty global business you know. Japan I think was the furthest East and upstate New York was the furthest West and I had plants all over the place. But I got poached out of there to go and run XXXXX because XXXXXXX who had been my boss at XXXXXXXXX became the chairman at XXXXX and they did a big restructuring project so it was 'who can we think of who is daft enough to do it?' So XXXXXXX was really the point that I got to take all that experience and apply it in a situation that was so extreme that the others were prepared to do anything to fix it. So XXXXX was by far the most comprehensive change programme that I ever ran and of course one of the biggest opportunities, as you know was that the company was part of a merger between two roughly equivalent German companies, and nobody would run the post major integrations so there was a huge procurement opportunity and initially and then no one would approach purchasing from a sort of strategic value stand point it was 'just go and buy me these widgets.' So there was a big opportunity to rationalise all that along with re-do the manufacturing footprint. Make sure your PDI process works. So all the kind of normal stuff in expanding and merging markets, yhada.... So I ended up doing that for 7 years and we basically during that period took what was a bankrupt over leveraged non-functional asset, that was losing market share and ended up combining that with a Japanese supplier and created the biggest brake friction company in the world. So did that for 7 years, finished in 2012 and now working in private equity, advising financial investors on

operational topics.
P - Ok, can I take you back to the XXXXXXXXX example. So, because there is a lot of XXXXXXXX in this analysis work. What was your experience of being part of this, because you were on the periphery of that programme weren't you?'
D - Yes, I was for most of the time that was running I was the operations general manager, so I was running plants and I had P & L responsibility in the sense that I was responsible for the cost base of the products I think in general the experience was good but it suffered from a bit of a failure to engage the rest of the organisation. I remember a conversation; it might make you smile actually. Do you remember XXXXXXXX, he came to see me and tell me, basically he spent 15 minutes telling me that he was the great I am, you know.
P - He did that with most people.
D - Yeah, and I said to him look just look out the window. Do you see that guy walking by, he is one of the graduate apprentices here and as far as I am concerned he has a year’s more creditability than you have so you had better smarten up and tell me what you are going to do for me. You also better listen to what I want. I am not going to implement your programme because I am the one who has responsibility for customer quality, for safety, price delivery, for all the things that can go wrong, that can xxxx up the procurement task. So you need to flip your approach around and you need to engage me as a partner not tell me I am going to do to make you the great I am of XXXXXXX.
P - Because that was a journey wasn't it? It started off with XXXXXXX wasn't it that started it? Then, was XXXXXXX after XXXXXXX?
D- Yeah. XXXXX came in. XXXXXX was really kinda used as the internal smart guy who could work out some of this stuff and then he was replaced by XXXXXXX fairly early on because what happened was, XXXXX had been at XXXXX forever and then the merger with XXXXXXXX happened and they set up a team of 6 wise men to write the integration programme, and XXXXX was one of those, and he picked up on this whole purchasing, structuring purchasing approach so he came in essentially to try and run some of those transformations but he didn't have and practical background in procurement. He was a really smart guy but at the time he had never sat across the table from a supplier or dealt with a supply chain crisis or whatever. So they felt they needed to professionalise so they brought XXXXXX in, who I think had a background in, I think originally at XXXXX, if my memory serves me right, then he spent some time at XXXXXXXX. But he had been involved in a big scandal at a company called XXXXXXXX, which the Government had set up in Northern Ireland making cylinder heads for XXXXX and basically they screwed up the economics. It went bust spectacularly and they ended up blackmailing XXXXX, it was a big scandal back in the late 90's I guess? So he came in and XXXXXX kinda crashed around a bit. XXXXXX again, his problem was he had moved too far up the structure and he had the sense to bring in some guys who sort of knew how to do this sort of thing. So he brought in a guy called XXXXXXXX to look after castings, and XXXXXX actually knew what he was doing, I had quite a lot of time for XXXXX. Eventually he was replaced by XXXX I think? Then XXXXXX, he XXXXX eventually, but XXXXX brought a much more academic approach and much more structured processed base approach but again we were still addressing purchasing very much from cost perspective, rather than a value perspective. We saved a shed load of money, which was exactly we needed at the time but I think we left some stuff on the table and in particular I think it was very difficult for the organisation to recognise who it's critical suppliers was and properly engage them and I think XXXXXX was a prime example of that and there was a failure I think to recognise

that XXXXXXXX was a big, big theme in our products and we needed strategic alignment with those XXXXXXXX suppliers.
P - And you don't think that was...?
D - I don't think the relationship with XXXXXXX worked. I mean I had seen a similar thing 10 years ago at XXXXXXX because XXXXXXXXXX were by far the biggest most competent XXXXX manufacturer in the world. There were others, but these guys were by far the biggest in my opinion the best, but because XXXXX had adopted this adversarial relationship, there was a lot of bad blood between senior management teams of either company. So, what's typical in a lot of these situation is the theme well lets go and develop another supplier who can be a rival to XXXX, and that really gives you two problems. The first one is, they are a developing supplier so by the very nature they are going to need a lot of support, they aren't going to be as competent, so you are taking a big risk and secondly, when you have got them there, what are you going to do? Because you can't compete the two off against each other, if one has a deep binding relationship with you, you're xxxx'ed. so I think there is a lot of flawed thinking and a lot of failure to face up to the realities of life and deal with the kind of , there is a kind of arrogance that goes down the supply chain. I am the customer, therefore I am right, you're the supplier you should do as I tell you to do. Now equally, I think when they get into monopolistic positions, find that the temptation to exploit that is extraordinary and that creates problems of its own, but this whole business of finding equivalency, of finding common value, finding ways where you both make money and both increase margin rather than shift margins from one company to another, I think is the critical question for that strategic supplier. You know, for the guy who supplies the photocopier, or the fleet cars, do what you like, but they are not really very important in my opinion.
P- Ok, so if I re-play back to you then, just in terms of again, what you said about your meeting with XXXXX, as XXXXX as an example, was there a feeling there that it was being done to you rather than done for you??
D- Oh yes, very definitely.
P - Ok, and then you would definitely question whether the thinking was right in terms of that value creation rather than........?
D - Yeah, I think these projects start out as most of these projects do, in, you know, here is a big fat financial gain for you Mr. CEO, that's going to save your job, you know, and most people would find that irresistible.
P - Which is one of the big dilemmas actually, because you get, especially consultants, consultant led change programmes. Again, what has come out of the interviews with a lot of the different companies is there is a real dichotomy in terms of as a consultant you have got to come in and sell a big number and then when you don't deliver that big number you lose your credibility. That's often a reason why they are relatively only short term and they get canned after three years.
D - Yeah, I think XXXXXXX are xxxxing notorious for that to be honest, I wouldn't, well I think they are backed away from that as a core area of their business, but this whole come in and beat everybody up squeeze 10% out of your bill of materials is fine, but it's not sustainable.
P - Absolutely! So, we have talked a bit about the reservation about the XXXXX one. So

what, how would you describe a good one, what are the things you would look for in a good, either procurement transformation or a procurement function? What are the key attributes if you like?
D - The key attributes I think, first of all the purchasing has to take a realistic assessment of its role in the organisation and more importantly has to get the other functions to recognise what purchasing's contribution is, because I think if you can get to some sort of idea of who is responsible for what and how do these interfaces work, then you can start to do things that really do transform business's instead of just move your material margin around a bit. I think it's actually, that's quite a difficult process and it's very difficult for procurement, in fact I think it's almost impossible for procurement to do that by themselves. That's where the senior strategic management team has to take an interest. So the CEO's real job is to determine what the best value equation for his customers is, and how does he then implement that. Well with stakeholders really. How does he then implement that both organisationally and from a process. In terms of regular running processes, keep the business going but also into a transformation process. So you have got to start with a kind of ‘come to Jesus' moment, where we are all in this together, you know what's your role, this is what I can do, and you have to get out of the rest of the organisation what their core concerns are, what their core opportunities are and what their core risks are. You need that alignment, early doors I think, to get the whole thing to work.
P - And you would see the CEO's role in that then as being quite crucial?
D - Absolutely fundamental, the CEO cannot duck the strategic positioning in the business and I think CEO's who go and hire XXXXXXXX to do that for them are spineless idiots who have no right to be in a job. That's just my opinion.
P - I won't quote you on that one by the way.
D - Well, not necessarily XXXXXXX, I think the danger with most consultants is that you should only ever use them as extra hands to implement what you want to do, you should never use them as extra brains to come and tell you what to do, that has to be done by the management in the business, and if the management is incapable of doing that you should change the management.
P - So, taking that a step further then, just in terms of the type of person you would expect to either leading a procurement transformation programme or procurement function, or then operating within a sort of the XXXXXX and the XXXXXX type people, what do you look for in those sort of leaders and the practitioners I suppose within that programme?
D - Well in a way the leader, I think the leader needs to confront a different area other than purchasing and ironically I think sales is actually quite a good place to start Because sales are really concerned about value, you know what they are trying to do is promote what is value to the company. Whereas as you said before, the essential goal of procurement is to try and commoditise everybody and that's, it's an unequal playing field actually, because my own personal experience of procurement is that they are very easy to defeat their argument. Every time I have come up against a procurement guy I think I have come off better than he has. Now that may damage the relationship because it clearly if you do it too obviously, you burn your key contact, but the number of times, you know I saw the head of procurement for a major European brake business, and he said, ' look here are all the quotes for this project, you're out of market.' I said 'no I'm not, there are four of us who quoted within 2% of each other and one guy who has quoted 10% lower, and I know his production is not 10% cheaper than the rest of us, therefore he has bought the business. If

you want to do that that's fine, if you want to do that but recognise what that means, it means he aint making any money on this project, so what is he going to try to do? And it was like, give me those back, give me those back. But you know, a very kind of simplistic approach base.
P - Yeah, you describe there a very sort of tactical approach from a buyer who probably doesn't know his stuff.
D - Yes, I think procurement tends to be tactical because they kind of stuck on the edge of the organisation, they are not generally at the core, it's only recently that you saw CPO's taking on boards, traditionally it's a function taken on inside operations and I've got these feelings about that to be honest. I think if you put the wrong person in the CPO role and stick him on the board that causes a lot of damage, but the right person in there, I can see that that structure works. But finding the right guy is core and it's someone who recognises what the value in the relationship is and he has to be able to see that from the perspective of clearly the purchasing company, his customer, but he also has to be able to see from the stand point of the supplier. One of the things that I was always very interested in as the CEO was, Ok we do this deal with this supplier but how does it work for him? What does this do for his business and if he isn't making any value out of this then surely all we are doing is storing up problems for the future.
P - So that's, is this supply chain solution sustainable? Is a question for the future!
D - I would think that that is absolutely crucial because of the issues and the disruption costs involved if it goes wrong. You know, re-amalgamation of products, getting in new supplier, getting rid of old suppliers. Having to prop up failing suppliers financially, it's a nightmare. And of course that's all negative opportunity cost that doesn't generally figure into procurement solutions. So I was always interested in sustainability and alignment of interests as the two core motivating decision making points, and only then should you look at, well what are the economic consequences. So you have got alignment of interests and value generation going on then the economic case should stand up. It's only where you pinching margin from one pot into another because of the fallibility of the human beings who were involved in the process. It's easy to get bullied!
P - It is, so if we talk about the approach to market. If I take a Nissan example, Nissan I suppose in the 80's were sort of leading the way in terms of bringing that partnership, sole source, develop that relationship and that worked for them for a period of time, but they also got into a situation where they got a bit burned from it as well because those supplier relationships became a bit complacent and you said about the exploits and the opportunity to exploit was there as well. That compared to the other side of the coin which is a true commodity your photocopies or whatever, that it's just a case of getting the right price, how do you see that working from an approach to the market perspective? What do you look for in the purchasing community to sort of sell you, 'is this the right approach that you are taking?'
D - Well I think the first thing you have got to do is to have an analysis of what are your requirements vs. what are the capabilities in the market. You know, you have to understand what the supply product does for you. Is it adding value to your product, or is it going to be something that you need to can make the product work? And you really need that sort of strategic vs. commodity analysis to begin with. I think once you have got that then you can start to look at the dynamics of the actual supplier market itself, then you can then begin to strategize well what's my best approach? You know, do I, first of all what’s my make to buy strategy, then what sort of suppliers do I want? You know is this a product that I can

switch easily therefore do I want two suppliers to compete it out and just want to drive it on a cost base? Alternatively, is this a unique product that is going to add value to me and my aftermarket if I can secure this particular piece of OEM business. Some of the best relationships for XXXXXX as a supplier into a customer, was one where we were bringing more to them than just a dumb?? piece of metal. So the relationship with XXXXXXX, whereby we had a collaboration that looked at the full life span of these products and we worked together to share after market benefit and we got that as far as we were giving XXXXX credits against their existing purchase prices and return for expanding business, and that was mainly aftermarket business. But they were also looking for suppliers with more logistics competency. They were looking for multi-regional solutions, they were looking for suppliers taking more responsibility fulfilling supply chains where they had variable demand, like in the aftermarket. I think that was a relationship that worked great for both parties. In fact when I left XXXXXXX, one of the few purchasing guys who rang me was the guy from XXXXXX, who rang me to say, 'thanks very much and you have got a great relationship here.' So I think you have got to find the core of that mutual value and what you are looking for from your supply chains is, suppliers who bring that approach. How can I give you something that is unique, how can we align in other sectors, you know, in a compliant framework of course but how can we collaborate in different areas? You know, how can I reduce your costs of get to market? How can I reduce your product either non conformance or product introduction costs which I think get buried in most organisations? You know, how do you go and find that value in there? So procurement has to do that analysis first.

P - Can I take you to back to XXXXXXXX again? Where there was the XXXX XXXXX integrated supplier, where there was the make vs. buy, the complex prismatic vs. you know, what was your view of that process?

D - I think that worked Ok actually, because it gave a clear, if you like.... First of all it said 'Ok machining is a core competence at some level in the organisation but we don't want to make every machine part in the units, therefore how do we set the boundary? I mean, I thought that was good. I think the second thing was it gave a degree of stability into a supply chain that's typically pretty stressed and I think Aerospace in particular is categorised by mega customers, well it's categorised right at the top by distressed buyers of the end products. Governments don't want to buy fighter planes and airlines are stupid! It's a ridiculous business. So you have right at the top, you've got people who have come straight from a value proposition?? Then as you go down you've got the mega system integrators, you've got the XXXXXX, the XXXXX, the XXXXXXXX, the XXXXXXXXX and then as you go further down you get into fairly big tier ones. XXXXX, it's getting a short list now, that was off the top of my head, there must be others? But then as you go down into the light end, you have got a whole bunch of widget manufacturers who are actually essential to the whole chain and yet may be turning over a couple of hundred million dollars or euros but where their financial position is quite precarious. Not a lot of private equity in there because their life cycle didn't like??? it. So generally they are reliant on commercial banks or public market and that can break people overnight. You only have to look at what has happened to XXXXXXX, a really key supplier, blown up and disappeared in the space of about a year, you know. There's others out there too. And it's interesting, I was talking to XXXXXXXX who is chief Engineer or whatever his title is? I think Chief Engineer, XXXXXXX, that would be the title I would have for sure. Executive life, president of engineering no, no, no, Chief Engineer. But he was saying the biggest worry they have is that second tier supply chain and its ability to support and what you've got is a huge mis-match of the value proposition and economics that are fundamentally xxxx'ed up at the bottom of the chain and I think what the XXXXXX deal did was it

offered the supplier that kind of magnitude, a secure base, that you could then raise financing on. You could go to market, you could do whatever, whatever..... Now clearly you had to have a pretty good mechanism for seeing what's a competitive cost rate and clearly the difficult thing is, how do you bench mark to make sure, well ok we're aligned and all the rest of it but are not being disadvantaged because all of a sudden you are sleepy, complacent and you're not going to invest in productivity and all the rest of it? So I think you need the right guys but I think with XXXXXX we probably did find the right guys at the right time. Certainly from an operation end of things, that deal seemed to work pretty well. From where I was sat. I think the dilemma was we were stuck with a bunch of parts that were fundamentally un-manufacturable??
P - That's symptomatic of the design process though isn't it? A design team that throws itself into manufacturing?
D - Well, No I think it was more symptomatic of the dynamics to the industry, you know, 'cos I was heavily involved in XXXXX flight safety and around the time I was running flight safety for XXXXX we were losing a XXXXX or a XXXX on average every 4-6 weeks. One would crash somewhere in the world and sadly about 1 in 3, they lost the pilot as well. So I was heavily involved with XXXXXX, and a guy called XXXXXX ran the engineering for the Marine Corp on the XXXXX, said to me, 'look we want modern airliner levels of safety out of this product.' I said to him ' look XXXX, I understand what you are saying to me but this is a single engined, 1960's designed fighter plane, I can't get there.' I literally can't do it because the aircraft, we couldn't design an aircraft that met those requirements and still fly it. It would be too heavy; we would never get it off the ground. It would need two engines for a start and how do we then take off. Oh you've tried it, XXXX, oh it's a disaster. So to a certain extent you are trapped in, particularly engineering where products have much longer life spans, than their original designers contemplated, and hence your trapped by a design that was constrained in a completely different way to what you have now. Military is the extreme example of that. My key statistic is, do you know how long the B52 will be in service with the US air force? A 100 years! The current fleet plans see the B52 out past 2015. And sure it will be re-engineered and re build, blah, blah, blah... but fundamentally it was designed by some guy back in the late 40's, early 50's who was in a different world.
P - Absolutely. right going back to the last two points then.
P - So my last two areas really. One is PR, so marketing coms PR, on this type of programme what's your view on that and the last one is linked to that in terms of governance. So how important is it that there is an independent review or what a good governance process around that is.
D - Well the first point I think you know you were talking about what's the role of the CEO earlier on. I think one of the fundamental things a CEO has got to achieve, is he has got to get a good understanding of what he is trying to do in the organisation. Not just through the management but down to every last person in the organisation. So your challenge is, how do you get the message, simple enough, clear enough and jargon free enough so that it's everybody from the board right down to the guy who sweeps the floor, can actually understand it. Clearly you tailor that message based on the needs of the recipient, but fundamentally you have to have everybody in the organisation on your side. You know, and most people don't do a very good job of that in my opinion. Largely because it takes a long time and costs a lot of money. It involves taking people out of their working environment for 1, 2, 3 days and that's giving them space and going and talking to them. Committing as a senior manager to go and explain that in person, to organisations that have

4, 5, 6000 people in them. You know in most MSE's?? and not many people do that, but I think that's absolutely fundamental. It's also very difficult to do not it sounding like ... What's that column in the FT called? That Lucy Calloway used to write? Martin someone or other? It was fantastic because this was management speak at large, and I was listening to a presentation of the CEO of a pretty large US Auto company, commercial vehicle company, and you heard what he said but it was impossible to discern meaning from it! You know, we are going to do the right thing by our customers, well what does that mean? We are absolutely determined that we are not going to screw up the product introduction again and yet they were crashing, running a crash programme and they didn't really do a very good job or articulating what they were doing differently and my favourite was, one guy goes, 'well in engineering we have the law of threes, which is generally it takes us three goes to really learn the fundamentals.' I thought 'Ok, so you only xxxx it up twice do you?' But xxxxxing it up twice is your guarantee that you're not going to screw it up a third time. I don't think so!
P - Never heard of that one!
D - Clearly that was a company that the risk mitigation process was broken completely, but you know it was a bold move and if they had pulled it off it would have been in really good shaped, but clearly they had been unable to work out what the pain/gain margin was. So job one is, the CEO has to be able to able of articulating what he wants to do and he needs to be able to cascade that.
P - And from a purchasing perspective do you think.. 'cos every discipline creates their own language, do you think the language of purchasing gets in the way of that?
D - I think, I'm not sure if it's the language, but I do think there is a tendency to over simplify and certainly a tendency to look purely at price as the measurement, and you see more sophistication now but clearly working capital. We had a customer in XXXXXXX who decided to buy XXXXXX from China because they were 10% cheaper and I went to see him and asked 'What's your cost and capital?' The guy goes, 'I don't know.' So I said.....
P - That's a bit frightening!
D - ...you're a big company and blah, blah, blah, I think your cost and capital is probably about 12%. I will supply you next day, and the lead time from China? 8 weeks, Ok. How much are you buying a year? '10 million.' Ok, so you are buying 10 million in 52 weeks, so that's 200,000 a week, so 8 weeks is 1.6 million, your cost at capital that's an on cost of around 200,000, and he was like... and said 'well how did you work that out?' It was pretty easy really, that's the cost of putting in the inventory that you get. 'Argh but we have got the supplier to agree to delayed billing.' So I said Ok, fine. What do you think he is going to do in the future and do you actually pay for the goods before you receive them?' 'Well shipping times and blah, blah, yes! Oh!! You're taking quite a few risk here then aren't you? 'What do you mean?' 'Well, how often does a container go missing?' 'Mmm,?' You know, and clearly.., I said '..and what happens if you don't have parts on stock?' He goes well, the garage will probably buy them from somebody else.' I said, 'perfect for me.' What happens to price when availability goes down? He said 'the price goes up.' 'Perfect for me.' So I think that in a way we have to develop a new language that really assesses economic impact in a way that is transparent and I have not seen a vehicle that does that yet to be honest. You know people talk about savings but again savings tend to be P&L related, they don't relate that to working capital requirements, they don't relate it particularly well through the timing of the balance sheet. So what point do your input

savings translate to increased profitability. They tend to ignore things like stock run downs, which clearly are a consequence of buying things cheaper, which may give you pain and grief in different ways.
P - Which links onto the last point that is governance. So governance in terms of the robustness of the numbers or the trust you would have as the CEO or the declared numbers from the purchasing community.
D - I think it's pretty essential that you have in fact I think it's vital that you kind of have a third party validation and it's vital that you imbed control those in a purchasing organisation.
P - Yes, and that worked really well in XXX, the fact that there was a Finance controller sitting in the middle of the table, went very well.
D - Yes, exactly and I think that guy can be a very valuable tool because he can tell you the consequences of the decision you are trying to make, he can steer you in the way that gives you the best value for the business. He understands the difference between cash and profit which sadly not many people in the organisation do understand. So you can both enhance the capability of the programme and make sure that people believe what they are saying in one step. So without that independent, with audit trails, with good data coming out of the rest company systems, you are screwed and you end up with massive savings that never show up in the bottom line.
P - Which in other areas undermines the credibility of the whole programme and it, people see it as fiction.
D - Yeah, and I think everyone wants instant whammy here. We live in a society that wants instant gratification and all too often it's easy for people to mistake, I've saved £10 on this phone, but that's £10 ex-works.com China and we aren't actually going to realise that until we get to the end of the last mobile contract of the person who gets this for nothing in the UK, so how do I then measure 'well where does that 10% impact me in my P&L?' and it ain't easy. Generally, it's a lot longer than people think it is. So you can not only blow the credibility on the management perspective, but you can also blow it from a second expectations perspective and make sure you are matching what you are committed to, matches the timescale of what you are actually going to deliver at and that's another area where it goes horribly wrong in my opinion. Again, consultants are the major villains in that.
P - I agree actually and again it has come back quite strongly in the other companies that the expectation management side of it is really important so even when the big number expectation and the not such a big number delivered you have failed because you have not met the expectations even though it's still a reasonably number that's actually been delivered.
D - Yeah exactly! Well the whole rules of promised land deliver high, you know they still apply. I think how you slice and dice the savings, how you portray them to the organisation, how do you find what the organisation wants? Does it want cash, does it want profit? Does it want time to market? Does it want security of IP? Does it want brand support? What exactly are the objects of the programme in the first place? It starts with, how do you capture what your customer requirements are for the programme? That should lead into how do you measure it? Plan your processes, which should lead to demonstration of benefit. But it's a tricky area. You've got, it's like predicting the weather in the UK,

there are too many variables and I think it's supposed to be raining right now according to the BBC!
P - Right, that's been fantastic, really fantastic.
D - Useful?
P - Absolutely. Is there anything else that you think I should be asking?
D - Argh! The catch all question. I do think there is an interesting question about career paths for procurement people because it tends to be the chimney of chimneys. You know you've got procurement and you've got core R&D that tend to be areas that never goes anywhere and for core R&D I kind of understand it. For procurement I don't, and I think finding a way of rotating people through the organisation and finding a way of qualifying them professionally in a way that means they can be useful in other parts of the organisation, I think is pretty core to the value or proposition. What else? I think risk management is something that doesn't get enough attention. I mean you are spending most of the company's money, most of the things that can go wrong, the opportunities for improvement are enormous in the external supply base and we kind of see lesson, after lesson, after lesson about that. The tsunami in Japan it very nearly brought the biggest industry on our planet to it's knees. It wasn't even a very populated area of Japan. It was the back end of beyond. It's like Hartlepool being wiped out and the whole pharmaceutical industry shuts down, it's nuts. So I think that whole question of risk management, risk mitigation, what additional cost is it worth compared with production, I think that's all gone. Yet that is a big feature in new product introduction now and clearly we benefit from that in a sense that in most cases new products actually work. Whereas 30 years ago I can remember thinking , 'I'd better sell my car because the warranty runs out next year.' Now I keep cars for 10 years. There are cars that are 50 years old around. Which have been re-engineered to the point that they actually work. So I do think that there is a much broader role for procurement that's not really properly developed and I do think that the academic and intellectual background of procurement is underdeveloped than other professions. I am not aware that you can be a chartered procurement anything, and there is a real learned body that is engaged in the same way that the IMECH or SME is.
P - Yeah there is a body, you can a chartered institute of purchase supply, but it hasn't got the same rigor or kudos as the IMECHE as an example.
D - It's not a legal constraint. To sign of engineering designs now you need to be chartered in quite a lot of parts of the world, so you have got a demonstrable gain/pain relationship. So I don think that procurement as a profession needs to find a way of getting itself onto that higher level and I do think lastly that the whole identification of value from procurement again is kind of goosey, goosey, airy fairy, and really for the accountants of this world you really need to put it on the table as a cost. It may well be an opportunity cost but opportunity cost and you know, you can start to run risk management then on how likely are you to see some of that opportunity costs. So I think there is a lot that can be done, so it's good that you are doing some intellectual work at the level you are doing at to look at what is a pretty important function in the business that is about 20 year behind everything else.
P - And I do see that. A lot of the literature is consultant led literature which is trying to sell something, it isn't the same body of research into it.
D - And it's a fascinating area because you've got all the behavioural aspects of it, you have

the commercial aspects of it, you've got the geo-political aspects of it, you know it's a very interesting field and yet it seems to attract very little intellectual interest. Maybe I should do a DBA, but don't tell Naomi that.
D - Yeah, have you talked to XXXXX? Because I took XXXXXX into XXXXXXX back in 2002 and similar situation there. XXXXX makes a shed load of money and the CEO was a bit of a weasel but he let XXXXXXXX talk him into a programme and we found that your real resistance comes at two levels. One is the kind of supporter of politics who is in favour, who is out of favour, who's the real power mongers etc. But the other one is, as you get into the operational structures you clearly are depended on other people outside procurement to actually input that, you know, particularly the operations management, and if they sense there isn't the big commitment or you are in a company that's very cosy, cosy, you get the same kind of passive resistance where implementation time scales start to push out and all the rest of it.
P - Yeah and you get an appearance of compliance.
D - Yeah, exactly. Now XXXXXX stuck it out actually, but I think there was an element of last man standing because they brought in a complete new team to XXXXX, so XXXXXXXX was already there he brought me into Europe, I brought XXXXXXXXX, who is married to another guy at XXXXX, she was at XXXXXX
P - Yeah, I know the name.
D - Yeah, and the idea was to run a transformation project, and XXXXXX came along, there were a whole bunch of other people came along, you know the TQ thing with XXXXXX, and it all kind of blew it. It boiled down to your situation at XXXXXXX, you know it was back us or sack us and that thing. Interestingly, eventually the CEO got canned for XXXXXXXXXXX of all things, it was in the public domain, I'm not telling tails. But XXXXXX stuck it out as last man standing. I kinda fell out with him when he didn't come to XXXXX, so I haven't spoken to him for about 7 or 8 years, 6 years it must be. So it might be worth contacting him.
P - Yeah. I will
D - I think one thing that is very different about procurement is on internal change, you've actually got a pretty clear line of motivation amongst the employees. You know, the employees recognise they are in the shit, you can get them to do great things. The problem is your transition across that accounts payable boundary is that, although suppliers are an integral part of the business their motivation is not necessarily aligned with that of the core company, point number one. Point number two is that part of it is based on personal relationships and particularly if you are in a culture like Germany, which is shit scared of change and wants to maintain stability. You know you get that, 'well I can't possibly do that to Herr x,y,z and equally you get suppliers who bankrupt themselves because they won't address value issues in the supply chain. I think one thing you have got to be very careful on, on developing that compelling case is that it has to be compelling for the suppliers you really need including commodities, who gives a shit, but for your strategic core you have got to get an alignment of value with them and that is actually very difficult in a lot of industries.
P - that is a really important point because that comes out here as well. next bit is competancy, of the organisation and the people you have and you talked about that in terms of that, people do business with people and you know they don't want to upset such and such, so the competencies that's come out of this was, back to XXXXXX actually. There

was XXXXXX, there was XXXXXX and her work, looking back at it was really good, because she had a drive for excellence as a competency and influence in communications. So the drive for excellence, getting it done, that's fundamentally someone who has the ability to get it done and then influence and communication is getting it done through influencing the people around you. So what you find, and what I've found in this is you get a lot of people who get it done, like the XXXXXX of this world as an example...
D - yeah, but leave wreckage!
P - ... leave destruction and the ability, and it links into the culture of the organisation, if you've got a multi-site business unit focussed organisation, then you have to major on the competency of the individual of influence communication because they will undermine the programme. So that's again come out of the research, that profile of the people aligned with the culture of the organisation is really quite an important aspect.
D - Again, and the rule of the CEO is absolutely core in that, in the sense that he has got to identify where the value for entire organisation lies because clearly there is huge conflicts particularly when you get into areas of out sourcing where without a clear steer, and a clear set of common metrics, you end up in these inter-departmental pissing contests, and you kind of see that a lot in the big procurement companies, the big Automotive companies, so I found it very frustrating with some pretty sophisticated organisations that they put a purchasing guy in front of you and all he cared about was, ticket price.
P - Which is again, a strategy thing, what is it about, and it may come back down to trust actually. If the people around you are trusting you to do the right thing for the business they see you as, are you going to ruin the business by chasing a ticket price saving.
D - Well I think, yeah, and you are back to short term vs long term and you are back to how people are motivated and of course when businesses are in trouble like XXXX was a couple of years ago, they go after short term gains and one of the easiest is, go bash your suppliers. It's almost the CEO checklist of things to do, restructure your factory footprint, bit tricky that, introduce new products, mm that's a bit tricky, oh go wack all your suppliers and say unless they give you 10% off straight away then they’re out the door. oh, dead easy, tick!
P - That definitely comes in here in terms of the project and what you said about knowing the core suppliers you need vs. the commodity ones, and again what's really strong is the amount of people that say on the face of it we want you to be our strategic partner then come along to this E auction we are having.
D - Yeah, we see that quite often and quite a lot in XXXXX, and one of the reasons they are suffering is I refuse to play, and you have got to be confident of the value you offer. Clearly what happens is that people commoditise products when they clearly are not commodities or they don't commoditize things when they really are commodities and in either case you are on a recipe for disaster.
P - And if you are a supplier into it, your job is to differentiate yourself and say we are not a commodity. If you are a buyer your objective is to say them that you are a commodity so there is always this inbuilt dilemma.
D- Yeah, and that I think is, part off what makes that worse is the fact that so often purchasing is an isolated unit within the company, because if you look at everyone else, you've got operations, sales, engineering, supply chain, they are integrated by the very nature of the task, but purchasing you can almost sub contract. You can chuck over that

commercial responsibility that contractual responsibility across the fence. So quite often I think procurement ends up like a little island within the organisation where they are not quite part of the company and they are not quite part of the supplier community, so they are stuck in this weird little ground, I think, present company accepted of course, I think the other big snag is that procurement is not seen as a particularly sexy area of the business, if you are a smart commercial guy you are going to go into sales. That's where you get the adrenaline buzz and all the rest of it, you know so purchasing you see a lot of people who have come up through the ranks, you know purchasing directors who have started out as buyers and I think it's very difficult for them to identify value. It's very easy for them to identify costs but value becomes a different issue altogether. And I saw my job essentially as the CEO of a supplier was to engage in the part of the organisation where value was clear and the danger in that is you piss off a lot of procurement people.
P - Yes, and again I think for XXXXXX as an example what a lot of time I'm spending now is not to do with necessarily buying better but it's linking front and back end of the business. So if I think about a 3 to 5 year deal we have got with XXXXXXX at the front we would replicate that at the back. So we are dealing with really big XXXXX and really big front end customers and XXXXXXXX small and in the middle being squeezed so as a risk management perspective you have got to join the two, so actually it's not necessarily to save money of course that's an element of it, it's more to do with de-risking the supply chain de-risking the business.
D - Well, especially as inflation is bad now, volatility in a lot of co commodities and the fact that the finance market exacerbate that, you're back to 'where do you put all this spare cash?' So I have got guys ringing me up saying 'you want to get into commodities we've got these huge Bond products??' So I said to him 'how many tonnes of copper am I going to own?' Well you don't actually own it you just own futures and you think or, forget it.
P - The concept of not having something tangible that you can hold!!
D - Yeah, I like the physical assets. Quite a chunk of my investment portfolio has got 4 wheels and drives around!
P - So, compelling case, competency of the people in the organisation, effective strategy to market which includes front end linking and supply chain thinking. Then there are the coms, in fact there is one missing there, data, coms and marketing and that's obvious but if I look at the CPO of XXXXXXX. He said he was spending probably 30% of his time just on internal marketing of the purchasing process. The final one is governances. This is having the link between the declared numbers and the financial community, would you agree with that?
D - Yeah. Aw, Ok so how do you measure savings etc.?
P – As you discussed, Independent review and it's audited all that sort of stuff, and the process here would be how do you operate? Process is an interesting one because it might end up being a separate arm.
D - What do you get out of this? Is this an MBA?
P - This is a Doctorate. It's DBA - You can either do a PhD which is a more academic, or you can do now a DBA which is like an MBA, a bit more practical than a PhD but at Doctorate level – They are very similar

Appendix 4 - Interview Framework Questions

Background
Should take around 1 hour

Ethics considerations

Background to the research

Explanation of the model – i.e research to date both in terms of literature review and also experience

Want to get to your views as a customer of a sourcing programme
Brief background and overview of the model

These questions could be used in interviews or be questions designed to prompt responses from focus group activity

Please provide a bit of background, and provide information regarding where you have been a customer of a sourcing programme
What constitutes a successful procurement programme?
As a customer of the programme – what would you look for in a successful programme
In your experience – what makes the difference between successful and failed procurement programmes?
How do you see your personal involvement in the programme
Define the characteristics or traits that would create a compelling case for a procurement programme to be initiated"
Define the desirable characteristics or traits of individuals involved in a procurement programme" -Leadership -Operational
People – what would you look for in leadership
What would you look for in terms of category manager
What elements would you like to see e.g. knowing the market – how
Define the characteristics of a procurement approach / strategy that has the following characteristics -Poor -Acceptable -Excellent"

Define the characteristics of a transformation programme in terms of its communication and influence that has the following characteristics -Poor -Acceptable -Excellent
What would you like to see as in terms of the strategy
Define the characteristics of transformation programme governance that has the following characteristics -Poor -Acceptable -Excellent
Effective Communications – what does this look like
Sponsors / Mentors

Appendix 5 - Informed Consent - Information Sheet

Introduction

Thank you for agreeing to participate in this doctorial research.

Since the very beginnings of commerce, individuals and organisations spend money on goods and services. Buying, Purchasing, Procurement, Sourcing, Strategic Sourcing, and more latterly within the public sector, “Commissioning”, are all terms used to denote the function of, and the responsibility for, procuring materials, supplies, and / or services.

The research is centred on the question “***What makes strategic sourcing programmes effective***?” This question is to be answered by analysing both the public and the private sector in order to determine key determinant factors.

The ultimate aim of this research is to improve the effectiveness of procurement, and as such this research should be of interest to many different parties. For example, public and private sector bodies who are wishing to undertake a procurement transformation programme may be interested in the outcome of this research in order to increase the propensity for success on any procurement based initiative that they are about to embark upon. Consulting companies may be interested in the outcome of the research in order to provide additional revenue streams to their business based on proven academic theory. Procurement leaders may be interested in improving the performance of their existing teams, or in the recruitment of people who demonstrate the right competencies, or in making sure that their programme “ticks all of the boxes” of the effectiveness model in order to give themselves the best chance of success

Confidentiality and Privacy Protections:

We will make our best effort to protect your statements and answers so that no one will be able to connect them with you. These records will remain confidential. There may be a requirement to show information to university officials, who are responsible for monitoring the safety of this study. Any personal information that could identify you will be removed or changed before files are shared with other researchers or results are made public.

Disclosure

All other involved parties have signed appropriate disclosure agreements. Collected data is fully exclusive for this research project only and is owed by the Aston Business School. No external party will own or have rights to any data, and data will be deleted after the finalisation of the Doctorate study. Data collection and storage fully complies with the all legal data protection acts.

Research Dissemination

Data obtained through this research may be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research (i.e., conferences, peer reviewed journals, articles etc.).

Contacts

For further information, please access the website www.purchain.com or please direct any queries comments regarding this research to: -

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Aston University

Aston Business School

Operations & Information Management

Aston Triangle, Birmingham, B4 7ET

CONSENT FORM	
Title of Project:	Improving the effectiveness of Strategic Sourcing Programmes - Identification and improvement of the key determinant factors
Name of Researcher:	Paul Joesbury

Please tick box

I confirm I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions of a member of the research team and have had these answered satisfactorily. ❑

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ❑

I understand that relevant sections of my data collected during the study, may be looked at by individuals from the research team, at the Aston University, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ❑

I agree to the interview being audio taped. ❑

I agree to the use of direct quotations in publications, where (Please choose 1)
Anonymity is not required. ❑

Anonymity must be ensured. ❑

I agree that the use of the company name in context with direct quotations and practices should be treated with: (Please choose 1)
Without restriction and without confidentiality. ❑

The company name should be masked and made anonymous. ❑

I agree to take voluntary part in the above named study. ❑

Participants Name Date Signature

Researchers Name Date Signature

Appendix 6 - ESC Presentation

Purchasing Category Management

ESC December 8th 2011– Melle

Paul Joesbury

Initial Observations

Positives

- Category Management process is robust – Good degree of momentum already
- Sponsor support model is excellent
- Purchasing Profile has been significantly raised
- ESC support
- Some very good people involved – Hi-potential within the group

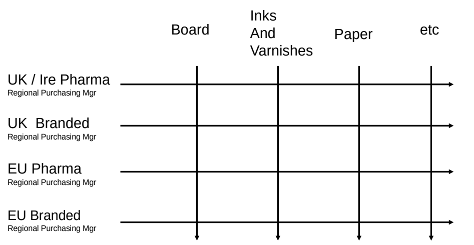
Issues

- Insufficient link between declared savings and bottom line benefit
- Insufficient focus on implementation
- UK centric
- Organisation Structure is not efficient multiple roles – at least one will suffer
- Ownership and motivation from the category leads
- One size timing for strategy development and savings delivery
- Poor information flow between category and businesses
- Process for new business
  - Board Supply
  - Commercial Input

Proposals going forward

- Differentiate the regional purchasing role and the category lead
- Include Board in the category management process
- Split category strategy development gateway process from Savings delivery projects
- Introduction of a monthly "heartbeat" for the monitoring of savings projects
- Introduce a "Purchasing Finance Controller" position
- Expedite current plans for data systems development (Holistic II and PDC)
- Develop specific regional and category savings plans
- Introduction of the Monthly cost Driver analysis report
- Develop sponsor role as sponsor / mentor role
- ESC to be quarterly status review, and escalation meeting – in order to agree strategy and take away roadblocks from the process

Organisational changes - Concept



Plastics / Spec Chem

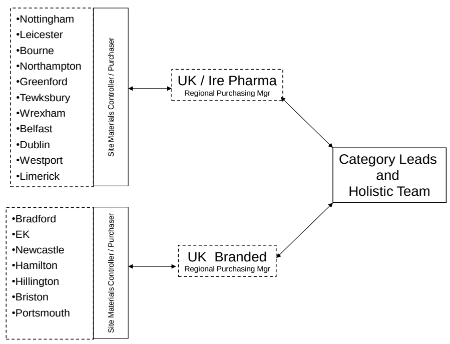
Americas

China

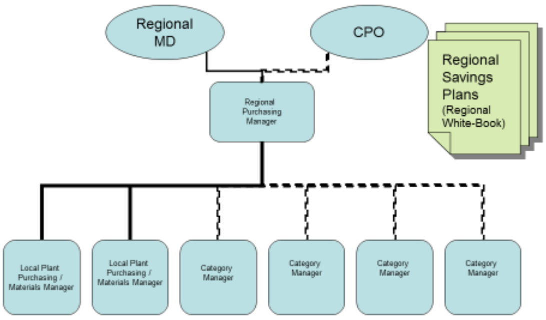
The role of the Regional Procurement Manager

- Responsible for the coordination of all purchasing activity in order to support the business
- Responsible for a business specific savings plan
- Point of contact for the provision of spend and specification information to the category lead for the development of the category strategy
- Procure to pay responsibility for the business
- Business related PPV management
- Coordinator of stakeholder input on behalf of the business
- Payment terms for the business
- Demand forecasting coordination
- New business supply chain planning coordination
- Support Holistic II development and implementation

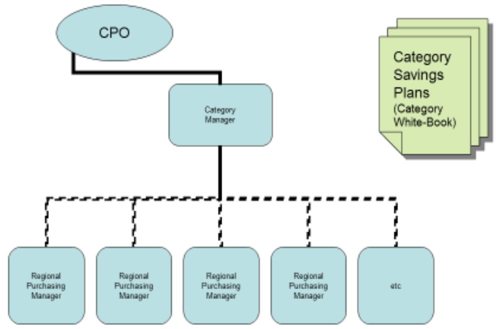
Organisational changes - Concept



From the perspective of the Regional Purchasing manager …

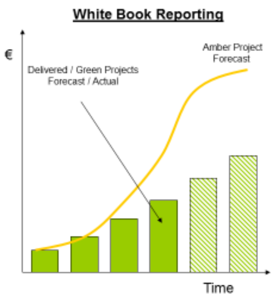


From the perspective of the Category manager …



The Consolidated White-Book

- All category and regional purchasing initiatives
- Direct Link to the budget process
- Independently verified by Purchasing finance controller
- Categorised into :-
  - Red – (Scoped opportunity)
  - Amber – (Active Project)
  - Green – (Delivered Project)
- Monthly review
  - Update to implementation Date
  - Update to Savings amount
  - Discussions to improve magnitude / speed of benefits implementation
- Red Project is pipeline of savings initiatives



The Role of the Purchasing Finance Controller

Record, Track and monitor Savings performance

Harmonisation of Core Data

Tracking and controlling of Procurement goals via KPIs

Development of Data and analysis systems

Purchasing Finance Controller

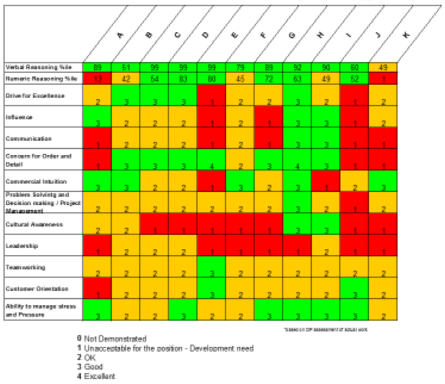
Procurement Process Audits and procure to ay Process development

Measurement of Purchasing Performance

Support to the Category Managers

Central contact for Savings and budget info

People – Competency Analysis



What's different now

- Momentum within the organisation
- A focal point for coordination between the regional role and the category role
- The organisation now has some experience of category management
- Data systems are being developed in order to support the approach

Timing going forward

- ESC approval of concept
- Review with each of the regional businesses the best application of the model within the region – avoiding a one-size fits all approach
- Implement monthly reviews commencing January
  - Regional savings review in conjunction with regional management

Appendix 7 - People performance rating

OVERALL PERFORMANCE RATING

5 - OUTSTANDING	Overall performance has been exceptional. The employee has helped to significantly improve business / departmental performance by achieving and exceeding all objectives and being involved in additional activities or projects.
4 - HIGHLY EFFECTIVE	Overall performance has been consistently strong. Generally achieved the majority of objectives in a highly effective manner and delivered on all the key priorities and / or has had to manage other significant competing priorities.
3.5 - EFFECTIVE PLUS	Overall performance has been consistently competent and professional in a very demanding environment and / or some objectives have been achieved to a higher standard or in a shorter timescale than expected.
3 - EFFECTIVE (on target performance)	Overall performance has been competent and professional. Achieved the majority of objectives.
2.5 - SATISFACTORY	Overall performance has generally been satisfactory but is in need of slight improvement. Made reasonable progress in most objectives but some have not been completed to plan or schedule.
2 - REASONABLE EFFORT	Overall performance is in need of improvement. Did not complete all objectives to the required standard or schedule and missed a number of key priority objectives.
1 - POOR PERFORMANCE	Overall performance is not acceptable. Failed to meet the majority of objectives. Performance must improve.

Appendix 8 - Procurement Academy Training Matrix

		Importance	Owner/Trainers	Assessment Type
Module 1 - Roles, Responsibilities and Objectives				
Fully understands the role of the category manager Fully understand the role of the regional purchasing manager Fully understands the role of the site purchasing manager / Material controller Fully understands the inter-relationship between the roles		**Importance**	**Owner/Trainers**	**Assessment Type**
1.1	Purchasing structure & organograph		Paul Joesbury	Document
1.2	Objective setting & reviews		Paul Joesbury/HR	Review with line manager
1.3	The role of the CM, RPM, Site buyer & Materials controller		Paul Joesbury	
Module 2 - Drive for Excellence				
Makes sound recommendations with limited time and information, is action oriented and moves quickly to implement decisions. Pushes themselves and others for maximum results, is not hindered by setbacks and can be relied on for results. Consistently meets or exceeds time and value-adding expectations. Feeds back on results achieved vs plan in a transparent manner and links to financial performance		**Importance**	**Owner/Trainers**	**Assessment Type**
2.1	Time Management			Off-site training
2.2				
2.3				
Module 3 - Data gathering and Data management				
Is able to direct data gathering efforts. Has good judgment as to most effective approach to use. Initiates changes in direction as required. Is able to cleanse and structure large streams of data for the purpose of drawing conclusions. Is proficient in advanced Excel functionality. Efficiently directs team data gathering effort. Selects deliverables, tools and techniques to be applied by the team to conduct the analysis. Learns and draws on new analytic approaches. Within Chesapeake, this means that ability to take raw accounts payable data and turn this into information that supports the category management process in order to deliver benefit to the organisation.		**Importance**	**Owner/Trainers**	**Assessment Type**
3.1	Advanced excel functionality (pivot tables etc.)			
3.2	Trinity		T. Hardy	Internal training
3.3	Demand Understanding and Interpretation (PDC)		T. Hardy	Internal training
3.4	Financial Awareness (Finance for no-financial managers)		A. Darrington	Internal training
3.5	PDC		J.Boyle	Internal training
3.6	Understanding the supplier evaluation process		Tony Hardy	Internal training
3.7	Understanding the use of VEP		Tony Hardy	Internal training
3.8	Understanding the function of the Approved Vendor Register		Tony Hardy	Internal training
3.9	Understanding data input into AVR		Tony Hardy	Internal training
3.10	Understanding outputs from AVR to the users		Tony Hardy	Internal training

Module 4 - Problem solving and Improvement					
Structures approaches to resolving complex problems. Has good judgment as to most effective approach to use. Initiates needed changes in direction. Demonstrates a rapid understanding of situations and becomes quickly conversant in the issues and opportunities for improvement. Leads the team in formulating, articulating and prioritising key conclusions. Develops solid set of practical recommendations. Prioritises recommendations based on ease of implementation and expected impact on business. In Chesapeake this means having examples of delivering solutions following a structured analysis of the problem			**Importance**	**Owner/Trainers**	**Assessment Type**
	4.1	Statistical Process Control			
	4.2	Non Conformance and Root Cause Analysis			
	4.3				
Module 5 - Stakeholder Management					
Has a strong (deep) understanding of the parts of the business, the value drivers and how to make parts of the business and suppliers perform. In Chesapeake this means knowledge of all aspects of the business from supply chain, through to customer account management, and the inter-relationships between them. Relates well to and manages relationships with diverse groups of people with different needs. Helps stakeholders to develop strong support, buy-in and momentum within their respective businesses. Facilitates large, difficult teams well. Can resolve conflicts and redirect dysfunctional teams. Coaches junior staff on their impact on others and how to improve. Helps stakeholder team overcome conflicts. Challenges the status quo and identifies new and better ways of doing things in the face of opposition from stakeholders. Adept at managing within the business's political and social systems. Establishes the case for change. Enables management to communicate the case throughout the organisation. Intervenes to address stakeholder resistance, including working closely with senior leadership to resolve team issues and development needs. Engages the wider organisation in change program as appropriate. Recognises and effectively addresses support and resistance as they emerge. Understands the end user's perspective, understands the drivers at the site level and committed to meeting their expectations and requirements. Translates understanding of the business and internal issues into a plan for exceeding business expectations on the category managed.			**Importance**	**Owner/Trainers**	**Assessment Type**
	5.1	Business Process Appreciation (all disciplines)			
	5.2	Carton Manufacture			
	5.3	Label Manufacture			
	5.4	Leaflet Manufacture			
	5.5	Tube Manufacture			
Module 6 - Market analysis					

			Importance	Owner/Trainers	Assessment Type
Analyses trends, competition, political, economic, social and technical factors, barriers to entry and exit and identifies credible suppliers. Uses Porters 5 Forces			**Importance**	**Owner/Trainers**	**Assessment Type**
	6.1	Porters 5 forces model			
	6.2	Process Mapping			
	6.3	Cost drivers			
	6.4	Cost models			
Module 7 - Specification management					
Works with suppliers and operational teams to identify, validate and review specifications, processes and procedures. In Chesapeake this means having examples of where direct input to specifications have resulted in a more fit for purpose solution that does not restrict the marketplace			**Importance**	**Owner/Trainers**	**Assessment Type**
	7.1	Supplier Processes (understanding)			
	7.2	Customer Processes - carton erection & fill			
	7.3				
Module 8 - Effective Category Management					
Is conversant with the CM concept, can conduct a baseline, market and TCO analysis, run an RFP and conduct negotiations. Designs and manages overall commodity (i.e., including all individual categories) logic and structure in line with procurement change objectives. Integrates activities across category work streams. Ensures quality of delivery. Effectively plans and manages activity consistent with overall Procurement strategy and roadmap. Always applies company CM concept and templates when engaged in supplier and category management activities. Keeps abreast of supply market trends, pricing and regulatory influences that create opportunities for further cost reduction. Has a strong understanding of relevant markets, suppliers and key influences of the business. Has a strong understanding of TCO and is able to articulate its implications to the business, stakeholders and suppliers. Challenges the status quo (supplier, product, process, specification and strategy) to identify TCO reduction opportunities.			**Importance**	**Owner/Trainers**	**Assessment Type**
	8.1	Supply Chain Techniques		Tony Hardy	Internal training / on job training
	8.2	Supplier Development			
	8.3	White book	High	Irena Lin	Internal training / on job training
	8.4	Total Acquisition Cost Model		Paul Joesbury	Internal training / on job training
	8.5	Data Analysis (desktop)			
	8.6	Gateway Process (understanding)			
	8.7	Creating a Strategy			
Module 9 - Establishing ongoing category management					
Establishes category team and obtains buy-in from the business that the team will be accountable for the performance of the supply solution. Establishes an ongoing management approach and associated processes that is agreed and adhered by the business. Identifies appropriate SLAs with business and agrees reporting templates and process with suppliers. Identifies and mitigates roadblocks within the company to ensure suppliers are given a fair opportunity to			**Importance**	**Owner/Trainers**	**Assessment Type**

supply within the agreement made. Establishes formal (site surveys) and informal communication networks within the company to assess supplier performance and to obtain specific examples of over/under performance. Coordinate supplier provision of SLA performance reports in time to conduct periodic review. Conducts periodical formal performance reviews with suppliers. As part of formal supplier review, discusses under performance, establish improvement plans and tracks implementation/change.					
	9.1	Managing Supplier Relationships			
	9.2	Auditing (Suppliers)			Internal training
	9.3	Innovation			
Module 10 - Contract Management					
Can demonstrate a track record of effective contract management and ongoing performance management. Identifies legal "watch-outs" for the company. Knows and works within the relevant legislation and understand the company's contract approach. Establishes a system for contract renewal dates, key terms, filing, updating price addendums and approving contract changes.			**Importance**	**Owner/Trainers**	**Assessment Type**
	10.1	Legal awareness		M. Kudo	Internal Training
	10.2	Commercial Structure Application (contracts, SLAs, pricing agreements)		M. Kudo	Internal Training
	10.3	Compliance & Legislation		E. Murray	Internal Training
		10.3.1 Certification (i.e., Chain of Custody, ISO 9001, PS9001, BRC/IOP, GMP etc.)		E. Murray	Internal Training
		10.3.2 Packaging Safety		E. Murray	Internal Training
	10.4	Corporate & Social Responsibility		P. Adams	Internal Training
Module 11 - Effective Communication					
Verbal Communication - Makes strong impression in all oral communications. Articulate and persuasive. Tailors communication to audience. By listening to people, asks the appropriate questions to draw interviewee into issue identification and problem solving.			**Importance**	**Owner/Trainers**	**Assessment Type**
	11.1	Verbal		HR	
	11.2				
	11.3				
Written Communication - Develops and executes business communication strategies using fact-based understanding of the organisation and key stakeholders. Probes deep on key issues. Goes beyond scope when necessary and appropriate. Able to draw out emerging insights.					
	11.4	Written		HR	
	11.5				
	11.6				
Presentations - Tailors communication to audience. Is in command of the audience. Turns presentations into constructive dialogues. Has a high standard of presentation skills. Independently develops sound reasoning for stakeholder presentations. Independently writes well-structured and persuasive materials. In Chesapeake this means that you are, and are perceived to be, and effective communicator					
	11.7	Presentation Skills		HR	
	11.8				

		Importance	Owner/Trainers	Assessment Type
11.9				
Module 12 - Purchasing Professionalism				
Maintains integrity and honesty in the face of challenges from stakeholders and suppliers. Maintains the strong reputation of the company in the supply market and business community. Has a strong sense of personal accountability, works unsupervised and performs tasks with energy, enthusiasm and diligence. Maintains professionalism when developing relationships with suppliers and customers. Treats all suppliers and stakeholders in a fair, considered and respectful manner. Proactively and consistently demonstrates personal drive and achievement of goals. Sets ambitious goals and proactively seeks to attain them.		**Importance**	**Owner/Trainers**	**Assessment Type**
12.1				
12.2				
12.3				
Module 13 - Team working and People management				
Conducts team as a collaborative exercise. Team works as a unit, team members feel they are learning and developing. Structures and manages large teams well. Involves all members, redirects junior team and stakeholder members as focus shifts. Actively coaches and develops team members. Proactively helps junior staff to set development objectives for each category / project in line with individual development requirements. Provides pro-active guidance and coaching where necessary.		**Importance**	**Owner/Trainers**	**Assessment Type**
13.1	Managing People			
13.2	Multi-Cultural Interaction			
13.3				
Module 14 - Risk management				
Effectively and formally assesses risk, and take appropriate action to mitigate and manage risk on an ongoing basis		**Importance**	**Owner/Trainers**	**Assessment Type**
14.1	Managing Risk (risk assessment)			
14.2				
14.3				
Module 15 - Project Management - Managing transition and implementation				
Effectively and efficiently manages the supplier and the business through transition, without any impact on current production.		**Importance**	**Owner/Trainers**	**Assessment Type**
15.1	Project management tools & techniques (MS Project)			
15.2	Change Management			
15.3	Material Acceptance Testing			
Module 16 - e-Procurement				
Has knowledge and experience of setting up and managing e-procurement activity e.g., reverse auctions		**Importance**	**Owner/Trainers**	**Assessment Type**
16.1	Curtis Fitch i-Source RFQ Training (Projects & Quick Quotes)		C. Juden	Internal Training
16.2	Curtis Fitch i-Source e-Auction training (reverse/forward English, Japanese & Dutch)		C. Juden	Internal Training

Appendix 9 - People Performance

People Performance

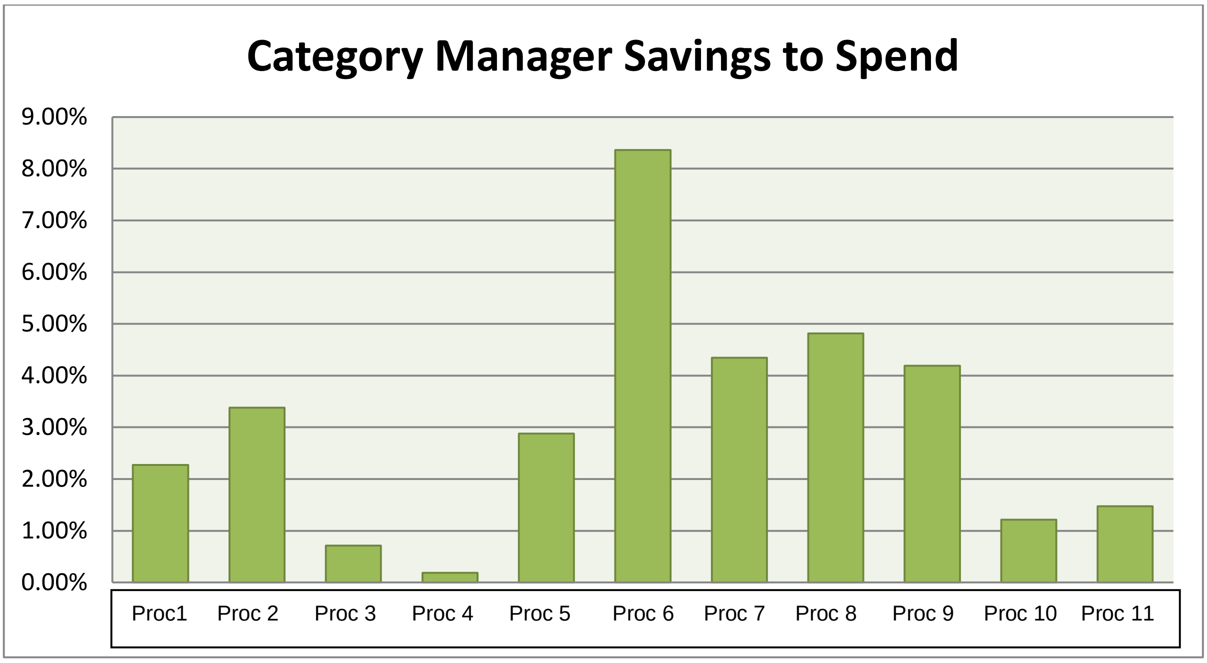


Figure 90 - Category Manager Savings Performance

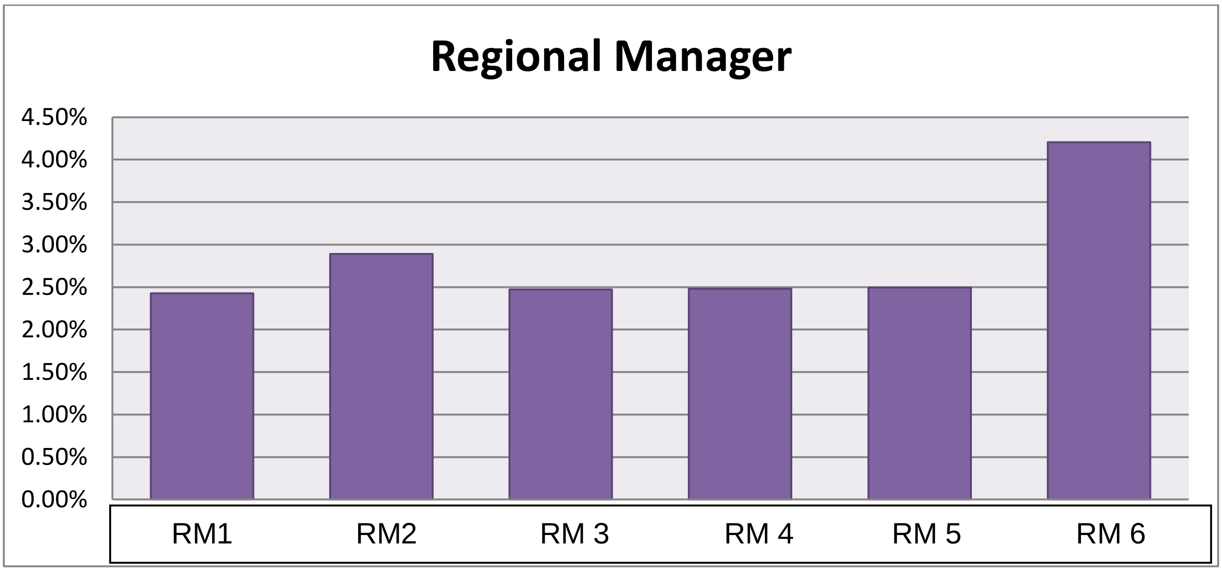
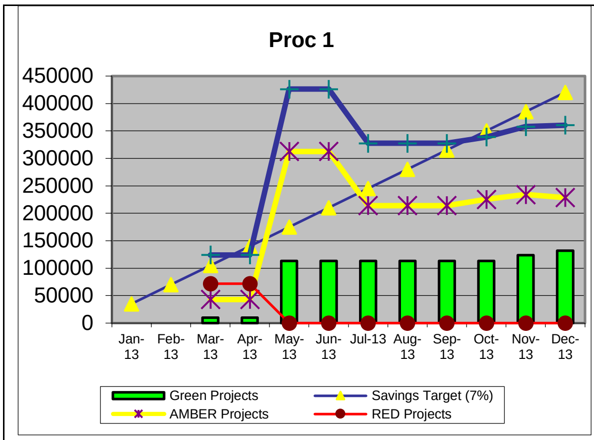
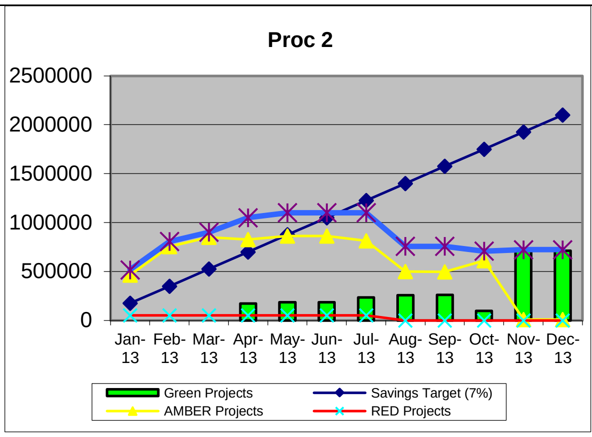
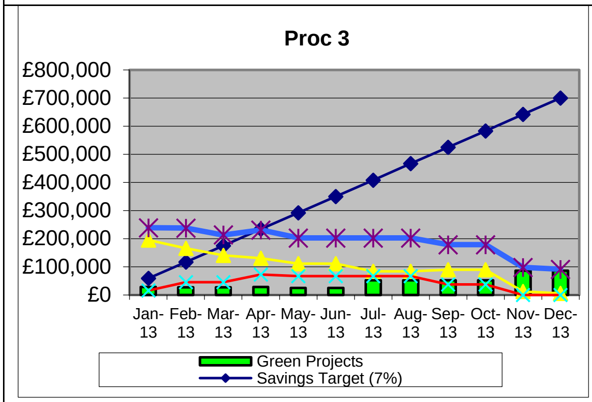


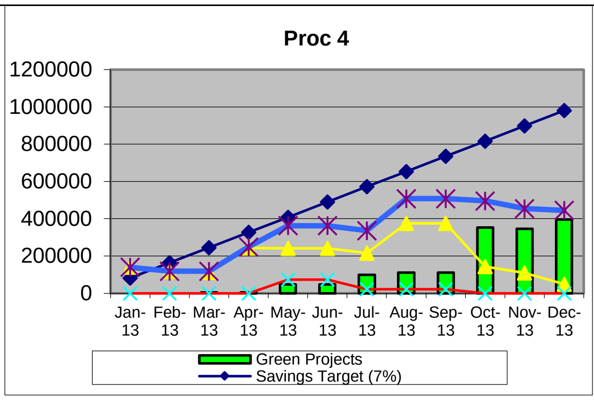
Figure 91 - Regional Manager Savings Performance

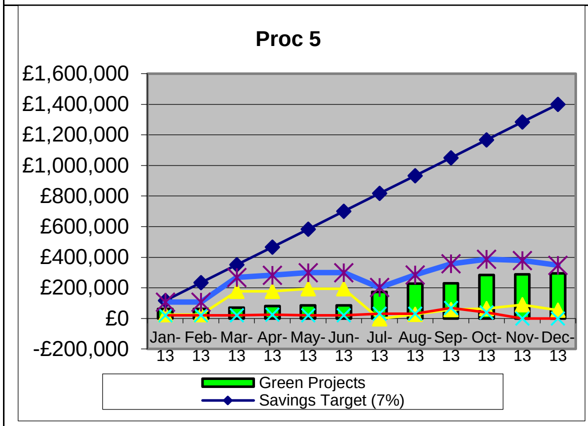
Individual manager Performance Jan - Dec 2013

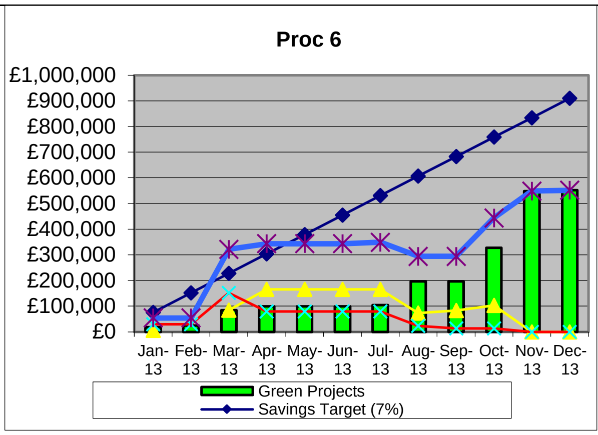


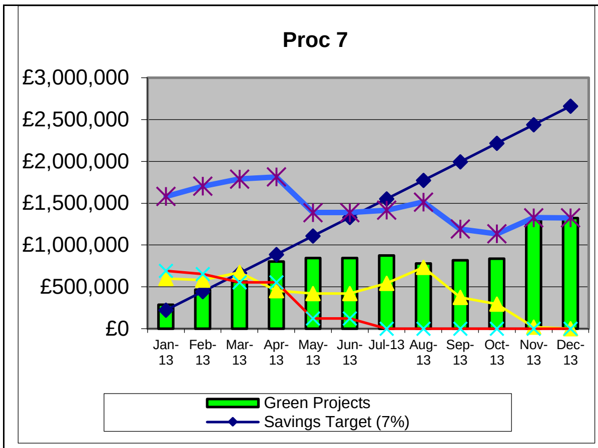








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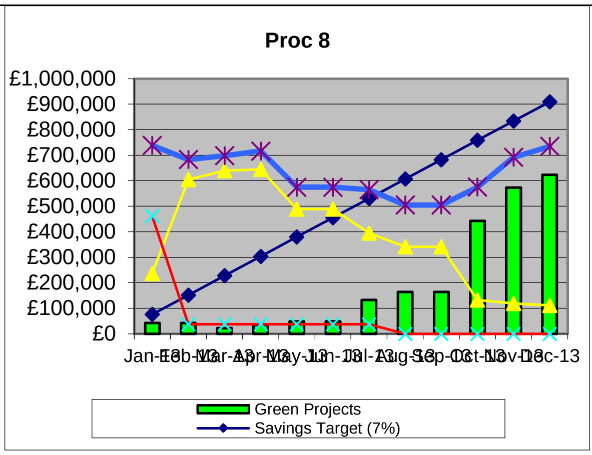
Green Projects
Savings Target (7%)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Green Projects
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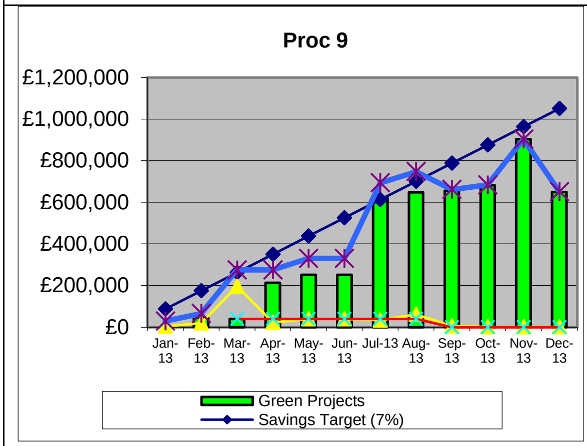
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Green Projects
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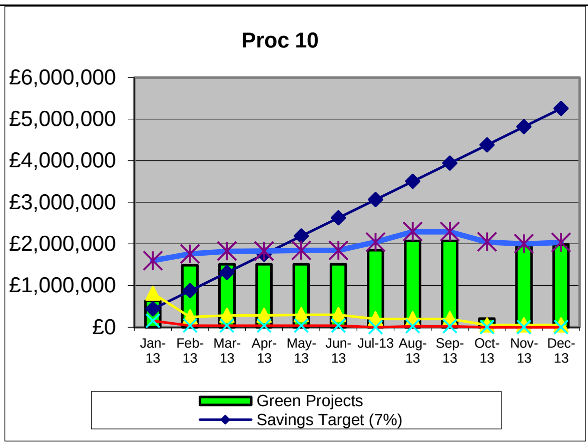
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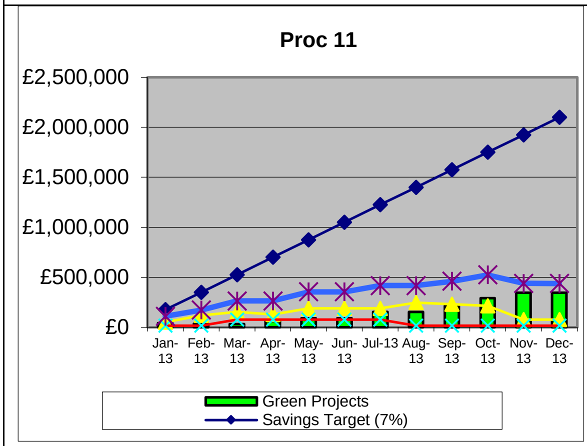
Green Projects
Savings Target (7%)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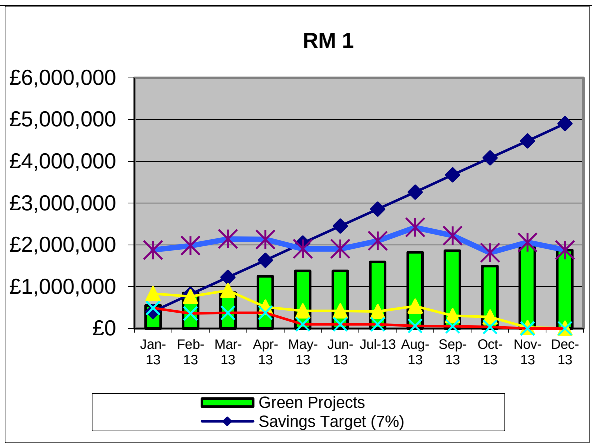
Green Projects
Savings Target (7%)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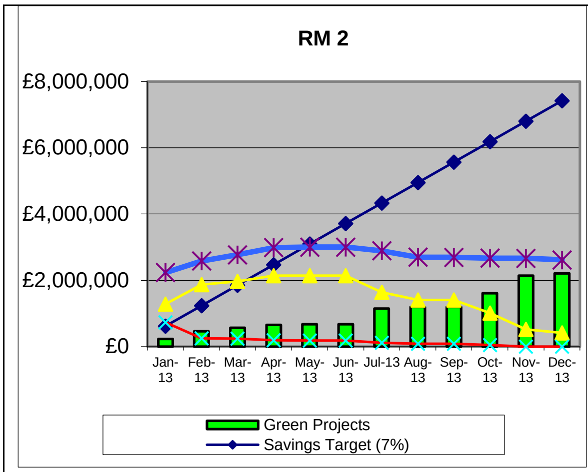
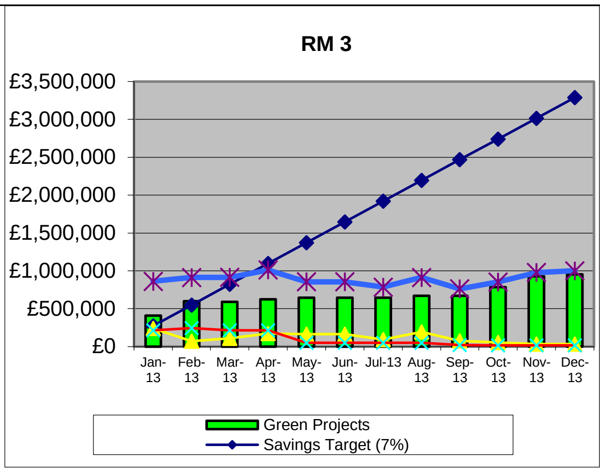
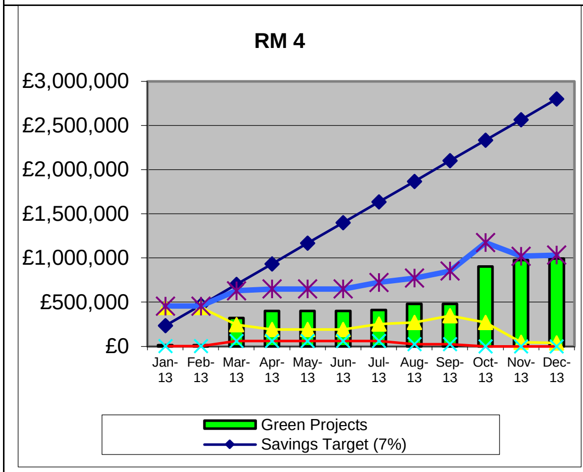
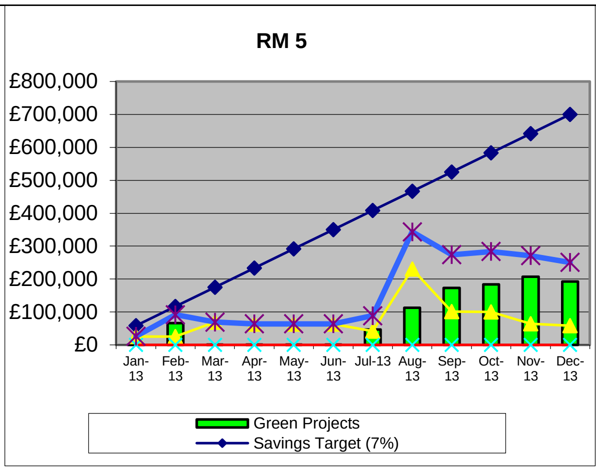
Green Projects
Savings Target (7%)









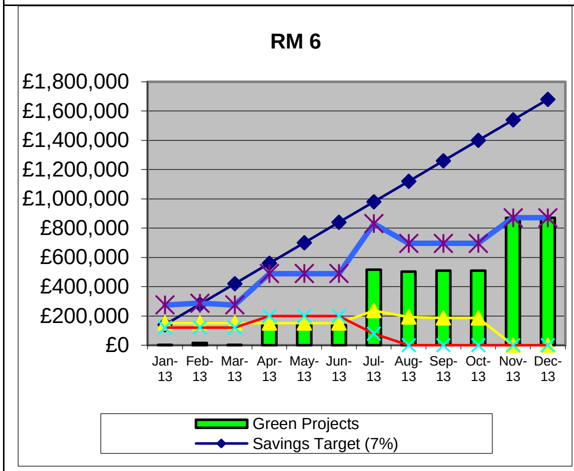


Table 39 - Individual Manager Performance

Appendix 10 - Correlation of Competencies to Performance

Appraisal to Savings Delivered

The appraisal system within Chesapeake Packaging was designed not just to assess the individual's performance, but to also assess the approach that the individual was taking in order to achieve their objectives. In addition, the appraisal system was designed to assess objectives that were less quantifiable. The relationship between the appraisal score and the savings performance was seen as an important indicator and Observation 5a "That the individual's appraisal score correlates to the savings delivered (i.e., that the people who achieve a higher rating on their appraisal deliver higher savings)" was tested. Two different analysis points were taken; Appraisal against savings (as a percentage of the target), and appraisal against savings (as a percentage of spend).

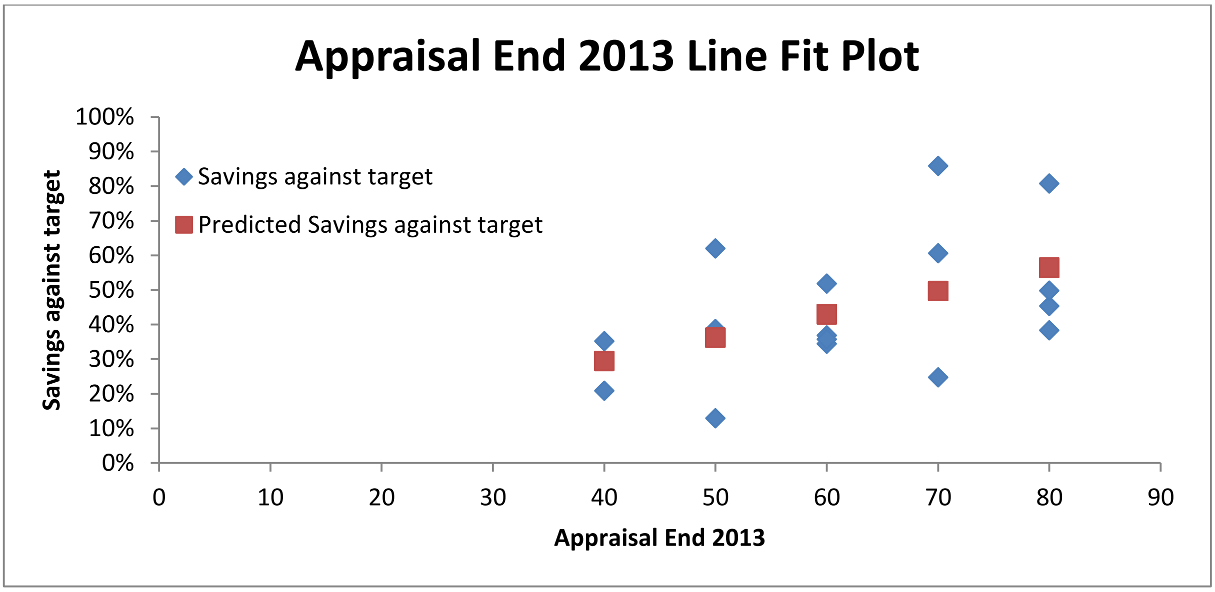


Figure 92 - Appraisal to Savings (Against Target)

Savings against target								
Regression Statistics								
Multiple R	0.468011156							
R Square	0.219034442							
Adjusted R Square	0.163251188							
Standard Error	0.183026597							
Observations	16							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.131533682	0.13153368	3.9265268	0.067518283			
Residual	14	0.468982295	0.03349874					
Total	15	0.600515978						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.025590087	0.217292176	0.1177681	0.9079243	-0.44045528	0.491635455	-0.44045528	0.491635455
Appraisal End 2013	0.006734719	0.003398719	1.98154657	0.0675183	-0.000554807	0.014024246	-0.000554807	0.014024246

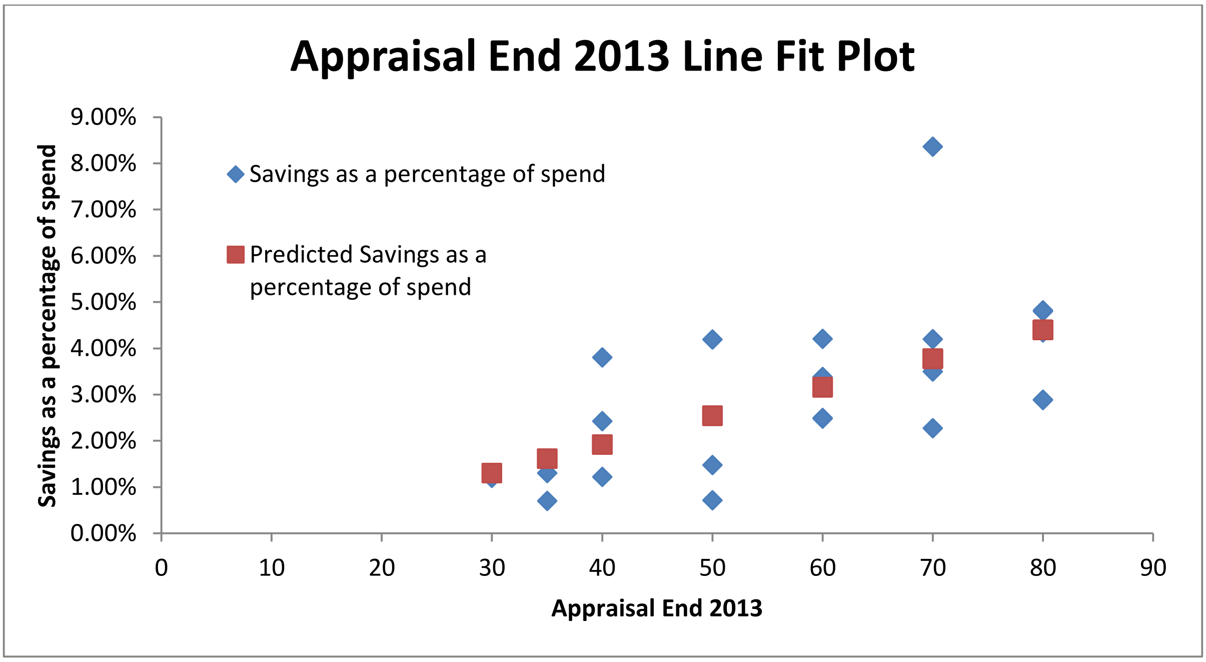


Figure 93 - Appraisal to Savings (as a percentage of spend)

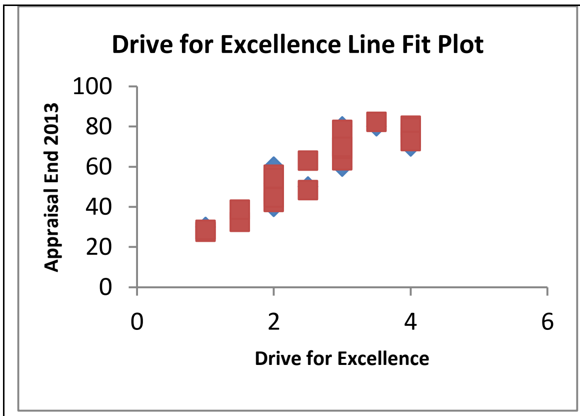
Savings as a percentage of spend

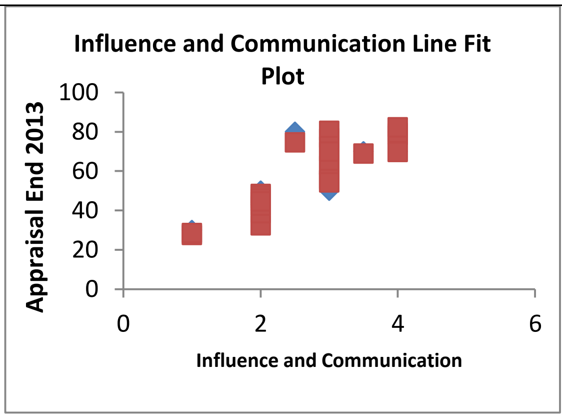
Regression Statistics								
Multiple R	0.614175322							
R Square	0.377211326							
Adjusted R Square	0.347554723							
Standard Error	0.014296885							
Observations	23							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.002599837	0.00259984	12.719303	0.001822812			
Residual	21	0.004292419	0.0002044					
Total	22	0.006892256						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.005525758	0.01039178	-0.5317431	0.60048449	-0.02713665	0.01608513	-0.027136647	0.016085132
Appraisal End 2013	0.000618624	0.000173458	3.56641319	0.00182281	0.000257898	0.00097935	0.000257898	0.000979351

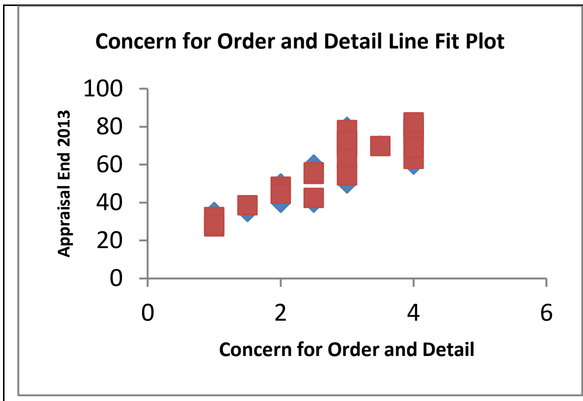
Both analysis shows a positive correlation, with the appraisal against the percentage of spend resulting in an R Square value of 0.377 against 0.22 when assessing against target.

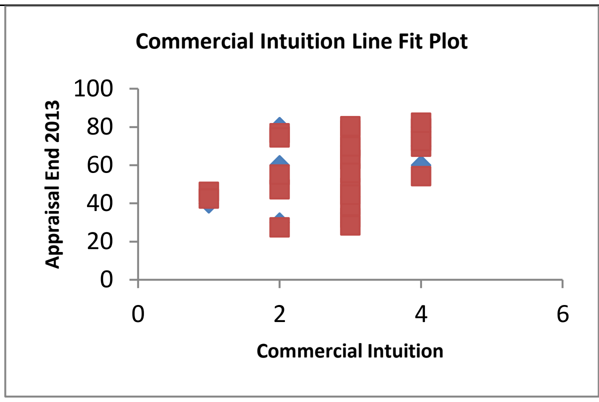
Relationship between Competency and Appraisal

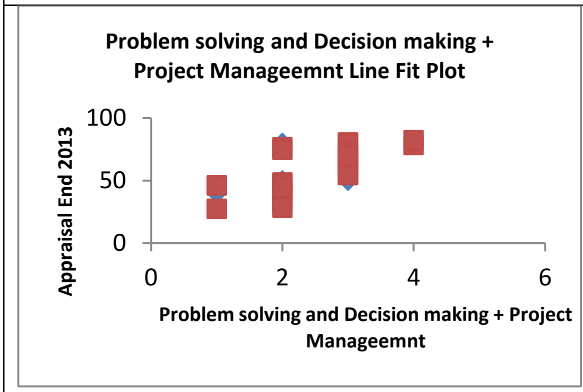
Following the assessment of the appraisal to performance correlation, Observation 5b was asserted i.e., that there is a positive correlation between the competency profile and the appraisal score. All 10 defined competencies were included in the assessment.

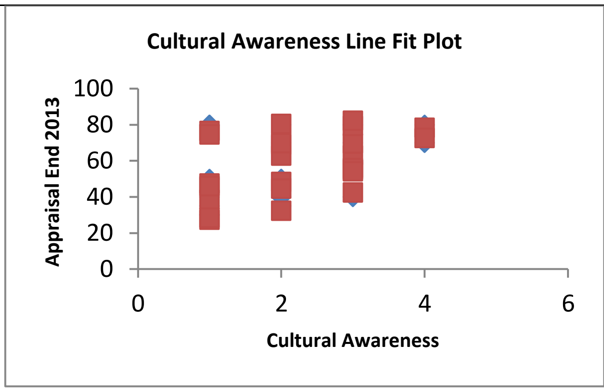


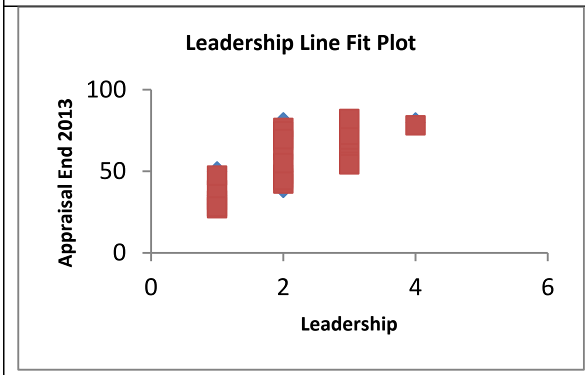


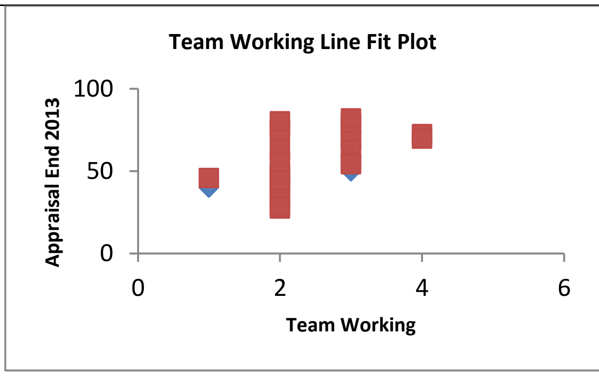


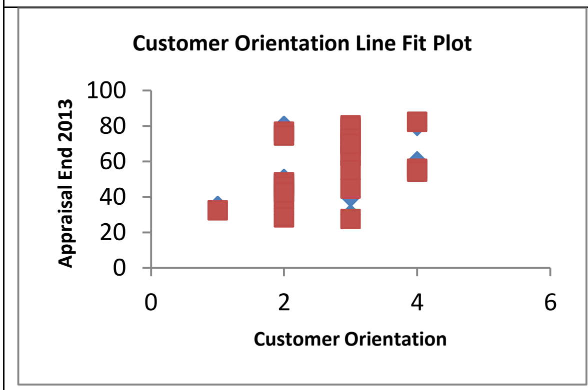


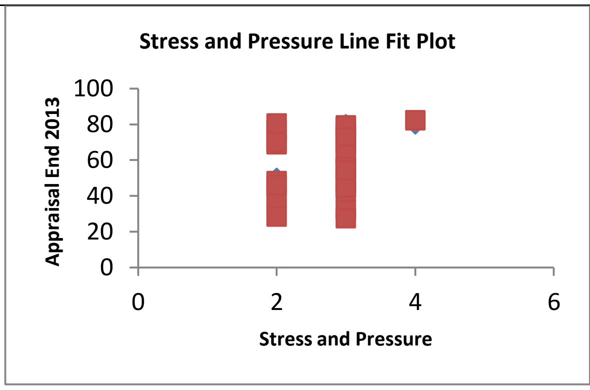












Key: -

Predicted Values

Actual Results

Table 40 - Relationship between Competency and Appraisal

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.971618126
R Square	0.944041783
Adjusted R Square	0.900997001
Standard Error	5.599191891
Observations	24

ANOVA

	df	SS	MS	F	Significance F
Regression	10	6875.770986	687.5770986	21.9316194	1.57783E-06
Residual	13	407.5623477	31.35094983		
Total	23	7283.333333			

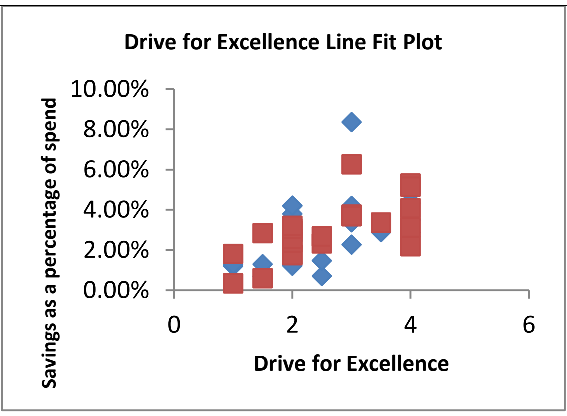
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.748110944	7.685538167	0.227454592	0.82360835	-14.8554848	18.35170671	-14.85548482	18.35170671
Drive for Excellence	11.75255841	4.154055642	2.829176936	0.01421298	2.778266806	20.72685002	2.778266806	20.72685002
Influence and Communication	5.222491365	3.701249491	1.411007655	0.18172339	-2.77357203	13.21855476	-2.773572026	13.21855476
Concern for Order and Detail	-1.9589421	3.902198509	-0.502009854	0.62405533	-10.3891295	6.471245247	-10.38912946	6.471245247
Commercial Intuition	-3.28892319	2.161880541	-1.52132513	0.15212382	-7.95938215	1.381535764	-7.959382154	1.381535764
Problem solving and Decision making	6.503892465	4.035318966	1.611741852	0.13101989	-2.21388415	15.22166908	-2.213884148	15.22166908
Cultural Awareness	-6.14121811	3.679045588	-1.66924219	0.11895933	-14.0893129	1.806876661	-14.08931289	1.806876661
Leadership	5.056980291	5.53279501	0.914001022	0.37735703	-6.89589663	17.00985721	-6.89589663	17.00985721
Team Working	2.644546378	3.538524257	0.747358556	0.46815063	-4.99997052	10.28906327	-4.999970516	10.28906327
Customer Orientation	1.614684822	3.549710803	0.454877851	0.65670035	-6.05399914	9.28336878	-6.053999136	9.28336878
Stress and Pressure	0.580143684	2.941379871	0.197235213	0.84669383	-5.7743212	6.934608564	-5.774321196	6.934608564

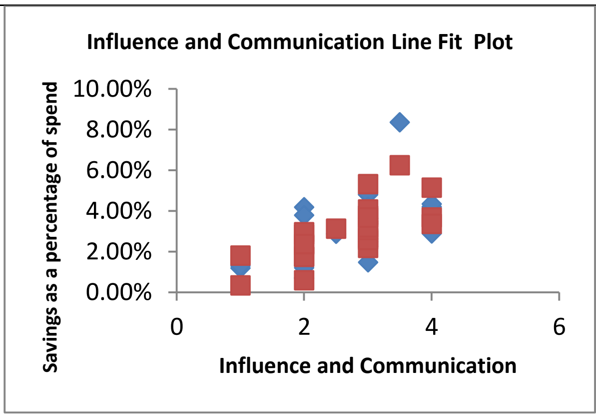
Overall, the R Squared value was 0.94 showing a good correlation. However, on inspection the competencies of; Stress and Pressure, Customer Orientation, Concern for order and detail, Team Working, & Influence and Communication were the main contributors.

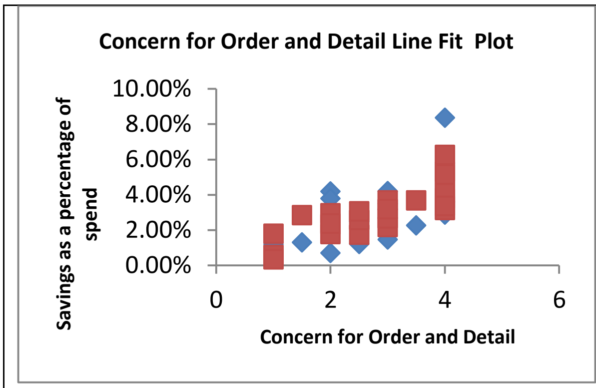
Relationship between Competency and Delivered savings

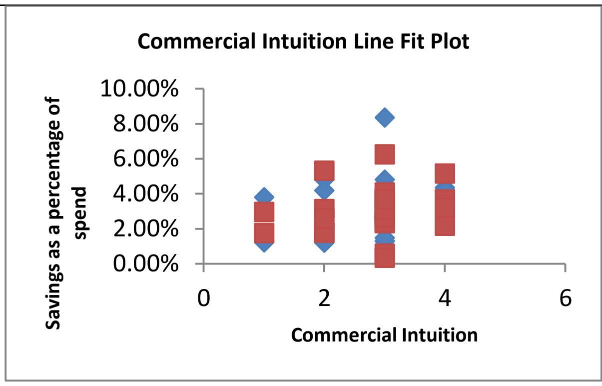
As with the appraisals analysis, this factor was assessed against delivery of savings as a percentage of spend, and delivery of savings against target.

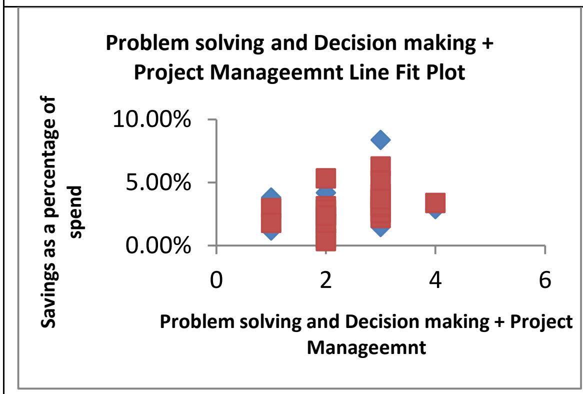
Savings as a percentage of spend

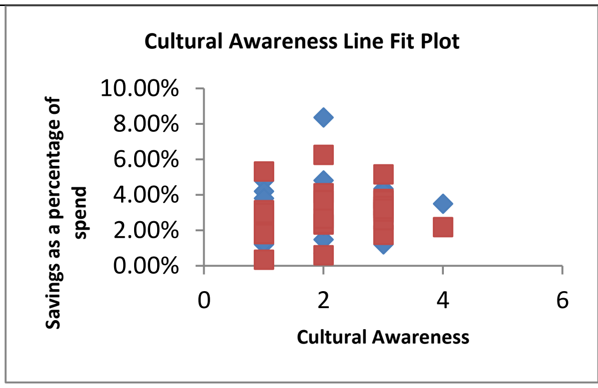


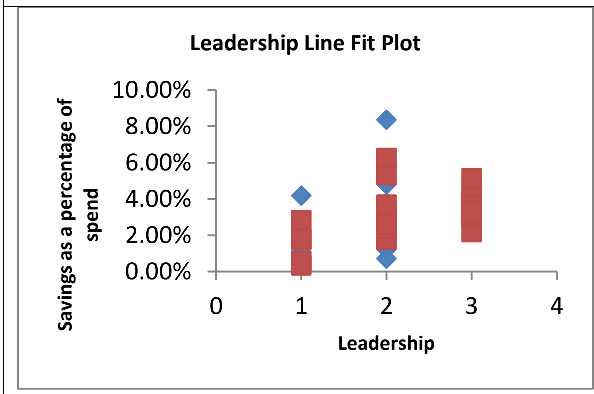


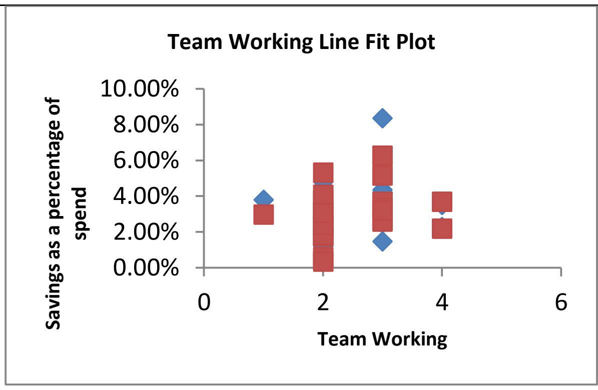


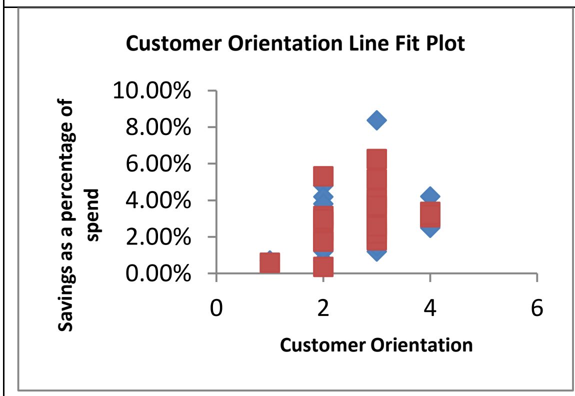


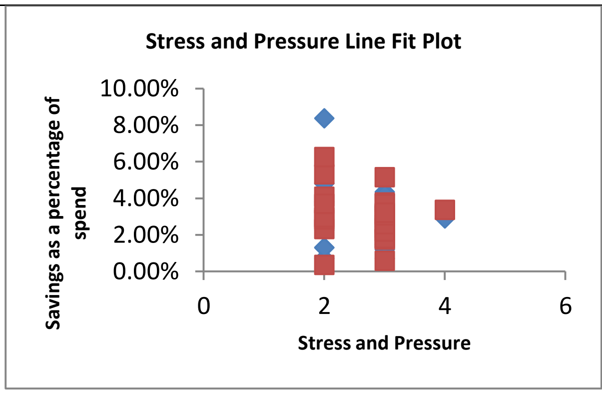












Key: -

Predicted Values

Actual Results

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.787071563
R Square	0.619481645
Adjusted R Square	0.302383015
Standard Error	0.014783521
Observations	23

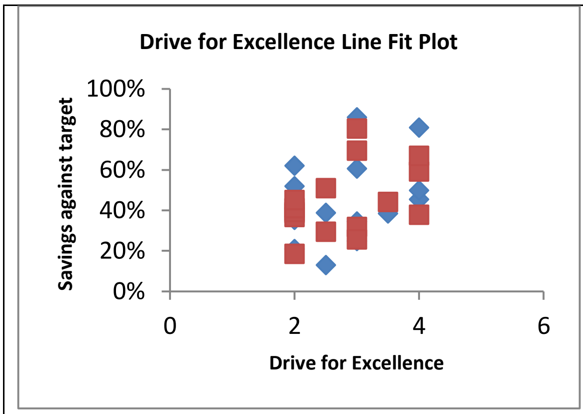
ANOVA

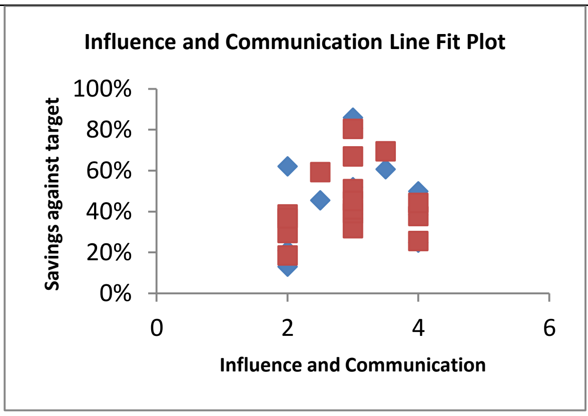
	df	*SS*	*MS*	*F*	*Significance F*
Regression	10	0.004269626	0.00042696	1.95359294	0.135526348
Residual	12	0.00262263	0.00021855		
Total	22	0.006892256			

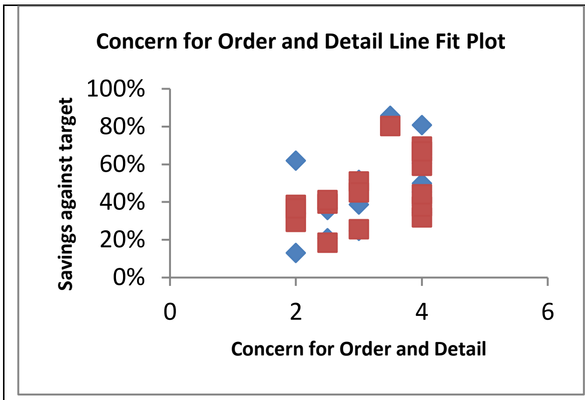
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.024135272	0.020458333	1.1797282	0.2609679	-0.02043961	0.06871015	-0.020439606	0.06871015
Drive for Excellence	0.001473653	0.011207099	0.13149277	0.89756438	-0.02294452	0.025891825	-0.022944519	0.025891825
Influence and Communication	0.017590957	0.009801269	1.7947632	0.09790162	-0.00376417	0.038946087	-0.003764174	0.038946087
Concern for Order and Detail	0.013270561	0.011327147	1.17157139	0.26410611	-0.01140917	0.037950294	-0.011409172	0.037950294
Commercial Intuition	0.005022275	0.006818314	0.73658605	0.47552848	-0.00983355	0.019878104	-0.009833555	0.019878104
Problem solving and Decision making	-0.018327041	0.012757004	-1.4366258	0.17638048	-0.04612216	0.009468083	-0.046122164	0.009468083
Cultural Awareness	0.011408075	0.012340375	0.92445125	0.37346783	-0.01547929	0.038295441	-0.015479292	0.038295441
Leadership	-0.024722203	0.020893943	-1.1832234	0.25963208	-0.07024619	0.020801787	-0.070246193	0.020801787
Team Working	-0.010268801	0.01073692	-0.956401	0.35774137	-0.03366254	0.013124937	-0.033662539	0.013124937
Customer Orientation	0.014282537	0.011307027	1.26315589	0.23052463	-0.01035336	0.038918432	-0.010353357	0.038918432
Stress and Pressure	-0.01304693	0.008036873	-1.623384	0.1304673	-0.03055777	0.004463911	-0.030557771	0.004463911

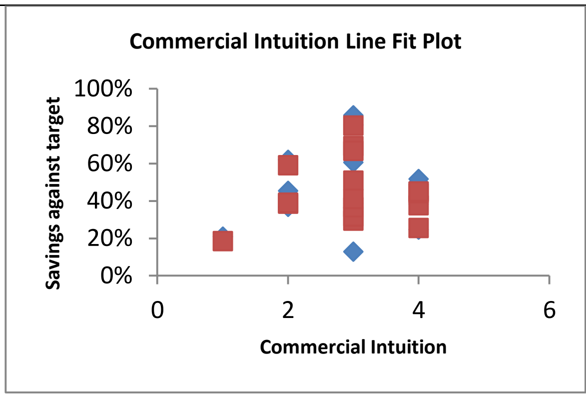
The R Squared value is 0.619, although care should be taken due to the fact that the data set did not pass the significance test (With a Significance F value at 0.135) against the accepted norm of Significance values >0.05 not being statistically significant). By inspection, Drive for Excellence has the greatest contribution

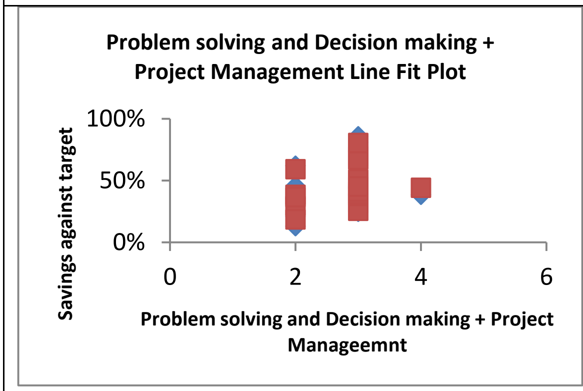
Savings against target

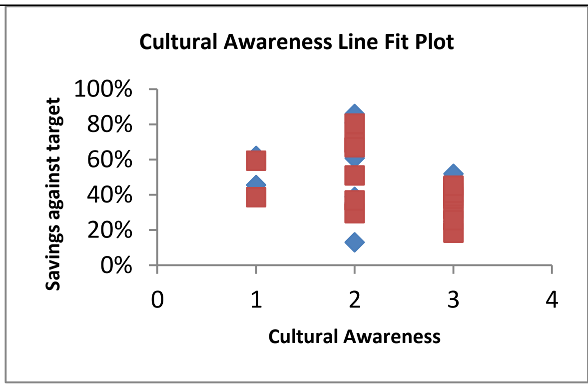


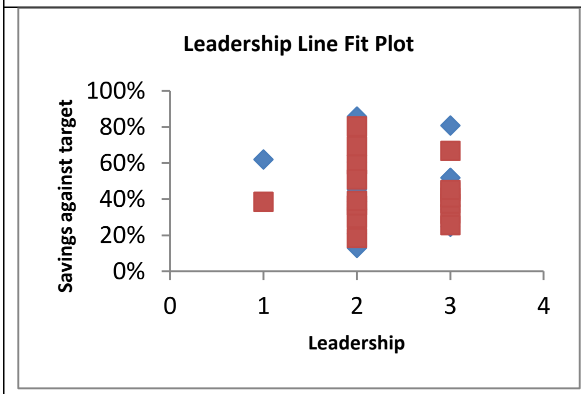


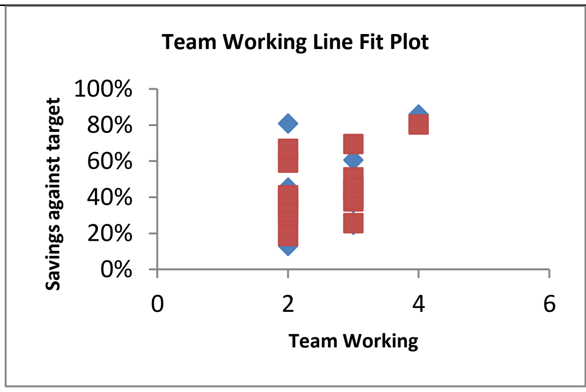


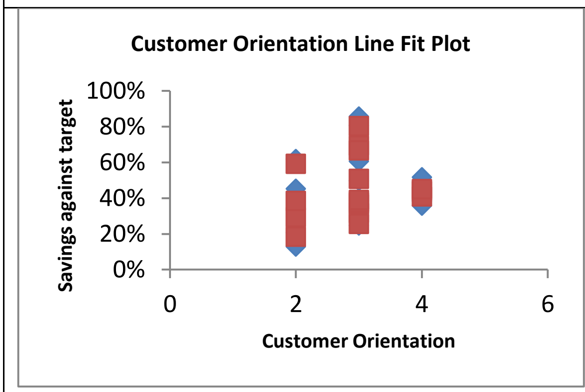


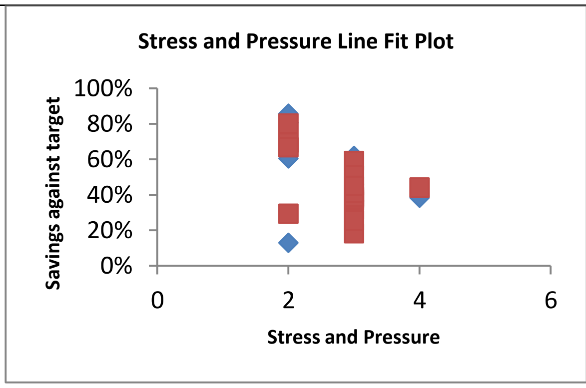












Key: -

Predicted Values

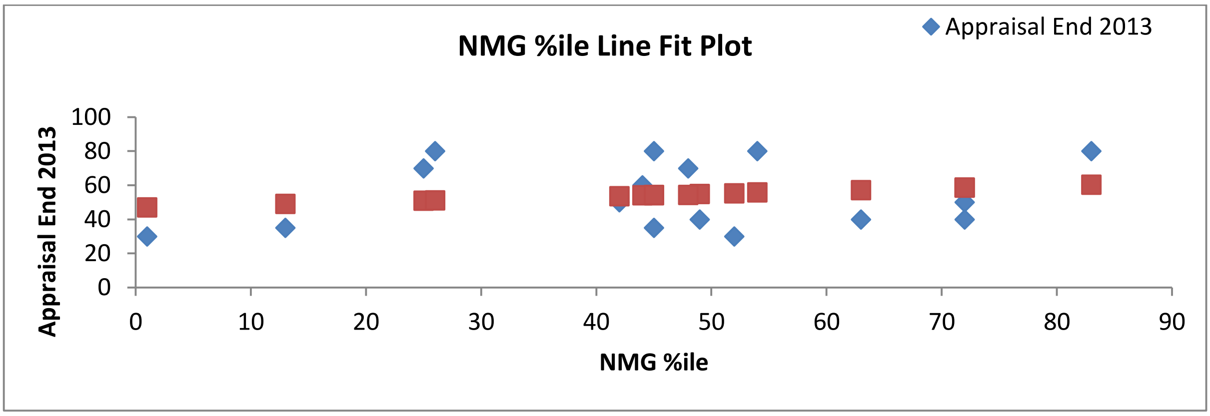
Actual Results

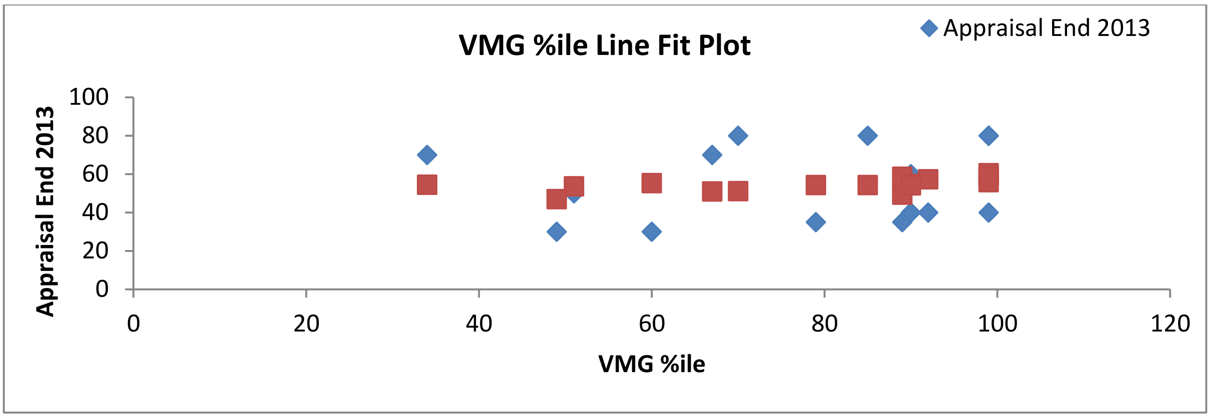
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.842842525							
R Square	0.710383521							
Adjusted R Square	0.131150564							
Standard Error	0.186504329							
Observations	16							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	10	0.426596655	0.04265967	1.2264211	0.434890921			
Residual	5	0.173919323	0.03478386					
Total	15	0.600515978						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.261215383	0.465871063	0.56070317	0.59919444	-0.93634431	1.458775075	-0.93634431	1.458775075
Drive for Excellence	0.079905403	0.23283905	0.3431787	0.74542239	-0.51862643	0.678437235	-0.518626429	0.678437235
Influence and Communication	-0.040250301	0.209692392	-0.1919493	0.85533401	-0.57928175	0.498781152	-0.579281754	0.498781152
Concern for Order and Detail	0.041690175	0.162678456	0.25627349	0.80794975	-0.37648811	0.459868459	-0.376488109	0.459868459
Commercial Intuition	-0.090028396	0.128782657	-0.6990724	0.51568117	-0.42107475	0.241017962	-0.421074753	0.241017962
Problem solving and Decision making	-0.008153046	0.268002267	-0.0304216	0.97690782	-0.6970748	0.680768713	-0.697074804	0.680768713
Cultural Awareness	-0.147436503	0.225184224	-0.6547373	0.54155497	-0.72629098	0.431417972	-0.726290978	0.431417972
Leadership	-0.016125462	0.363105169	-0.0444099	0.96629671	-0.94951701	0.917266089	-0.949517014	0.917266089
Team Working	0.109721531	0.155359009	0.70624505	0.51157578	-0.28964152	0.509084579	-0.289641516	0.509084579
Customer Orientation	0.235236656	0.249690363	0.94211347	0.38939094	-0.40661286	0.877086169	-0.406612857	0.877086169
Stress and Pressure	-0.122957842	0.111235875	-1.1053794	0.31932518	-0.40889876	0.162983076	-0.408898761	0.162983076

Savings against target, as per the Savings against spend, fails the significance test, although Problem Solving and Decision making, Leadership, Concern for order and details and Drive for excellence all contribute positively

Relationship between Reasoning and Appraisal

This analysis looks at the relationship between the verbal and numeric reasoning (based on the SHL psychometric suite of tests) and Appraisal.

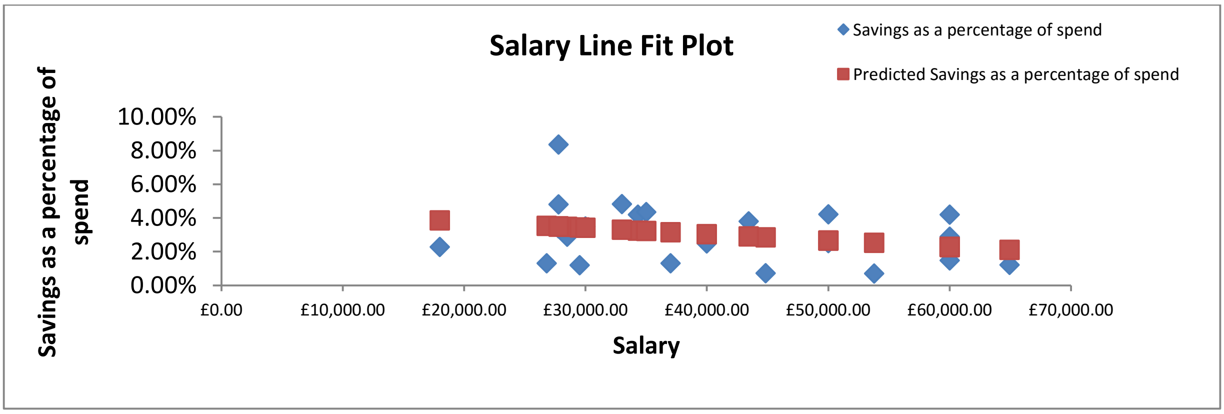




SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.181573417							
R Square	0.032968906							
Adjusted R Square	-0.115805109							
Standard Error	20.67027752							
Observations	16							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	189.3651528	94.6825764	0.221604	0.804197746			
Residual	13	5554.384847	427.2603729					
Total	15	5743.75						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	46.47514576	21.20161701	2.19205666	0.047181	0.671836908	92.27845461	0.671836908	92.27845461
NMG %ile	0.159855834	0.282402947	0.566055829	0.580996	-0.450238641	0.769950309	-0.450238641	0.769950309
VMG %ile	0.007297492	0.304374287	0.023975391	0.981236	-0.650263178	0.664858163	-0.650263178	0.664858163

It can be seen that the R squared value is only 0.03, and that the data fails the significance test with F showing 0.804.

Relationship between Salary and Performance



SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.292705966							
R Square	0.085676783							
Adjusted R Square	0.042137582							
Standard Error	0.017322913							
Observations	23							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.000590506	0.000591	1.967808	0.175292675			
Residual	21	0.00630175	0.0003					
Total	22	0.006892256						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.045361934	0.01154631	3.928695	0.00077	0.021350069	0.0693738	0.021350069	0.0693738
Salary	-3.75425E-07	2.67628E-07	-1.40279	0.175293	-9.31988E-07	1.81138E-07	-9.31988E-07	1.81138E-07

Appendix 11 - Objectives

Procurement Objectives 2011- 2013

Main Objectives

No.	Objective	Category Leads	Regional Purchasing	Supplier Dev	Technical Support	CPO Office	Exec team / Sponsors
	Cost – Deliver budgeted cost reductions - Identify and deliver TAC savings:- • 2011 - £6m • 2012 - £10m • 2013 – 15m	●	●	○	○	○	○
	Improve working capital through improved payment terms and improved stock	●	●	○		○	
	Ensure spend is covered by documented and approved strategies – 80% of spend by end of 2013 • 2011 – 60% • 2012 – 70% • 2013 – 80%	●	○	○	○	○	○
	Improve the level of market intelligence, and of the impact of key cost drivers over the business	○	○	○		●	
	Improve the performance of the supply chain	●	●	●	○		
	Improve the infrastructure in order to enable effective Strategic Sourcing • Data Systems • Supplier / Supply-chain Performance Measurement • Supplier / Supply-chain Improvement	○	○	●	○	○	

● – Main Objective
○ – Support

Page 1 of 12

Appendix 12 - The Chain Newsletter

Appendix 13 - Survey Questionnaire

Aims and Objectives

Group procurement, in its current form, was established two years ago on the back of the consultant led "Brainnet" programme. The organisation consists of Category Managers (Looking across all business units), working with Regional Purchasing Managers (RPM's) working on behalf of the specific business unit

1. How aware are you of the group procurement activity?

I am not aware of the group procurement programme	I know that the programme exists but I do not really know what they do	I am aware of the activity	I am fully aware of the activity	N/A
○	○	○	○	○

Additional Information / Comments

2. How well informed are you about the aims and objectives of the programme

I have no information	Some / limited information	Good level of information	I fully understand the aims and objectives	N/A
○	○	○	○	○

Additional Information / Comments

3. How aware are you of the approach taken by group procurement e.g. The Total Acquisition Cost (TAC) triangle and the category management gateway process?

No information / Not aware	Some / limited information	Good level of information	Excellent level of information
○	○	○	○

Additional Information / Comments

Roles and Responsibilities

4. How well informed are you of the specific roles and responsibilities within the team

No information	Some information	Good level of information	Excellent level of information	N/A
○	○	○	○	○

Additional Information / Comments

5. I know who to speak with if I need assistance with a purchasing issue

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
○	○	○	○	○

Additional Information / Comments

6. I understand the difference between a Category Manager and a Regional Purchasing Manager (RPM)

I do not understand either role	I think I know the difference but I am not sure	I know the difference but am unclear of their specific roles and responsibilities	I am fully aware of the differences in role and responsibility
○	○	○	○

Additional Information / Comments

7. Having the Regional Purchasing Manager represent my specific business unit interests within the procurement programme works well

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
○	○	○	○	○

Additional Information / Comments

8. The Regional Purchasing Manager understands the requirements of the business unit that I operate within

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
○	○	○	○	○

Additional Information / Comments

9. The Category Managers understand the requirement of the business unit that I operate within

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
◯	◯	◯	◯	◯

Additional Information / Comments

10. Category Managers bring a good insight and show a good understanding of the categories that they have responsibility for

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
◯	◯	◯	◯	◯

Additional Information / Comments

11. I believe that the procurement activity is concerned with more than just prices e.g Quality, Cost, Delivery, Cash, Innovation etc.

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree
◯	◯	◯	◯

Additional Information / Comments

12. Are there any additional areas that you believe should be addressed by the procurement programme?

Effectiveness

13. Do you think that the current Group Procurement Programme is right for Chesapeake

No - Not at all	Poor - A different approach would be better	Good but could be better	It is the right thing for Chesapeake	N/A
○	○	○	○	○

Additional Information / Comments

14. In your opinion, how effective is Group Procurement in terms of adding value to the Chesapeake organisation?

Not Effective	Reasonable	Good	Excellent	N/A
○	○	○	○	○

Additional Information / Comments

15. How effective is the category area in relation to delivery of benefit to your specific business unit

	No Support	Poor / Low Level	Acceptable	Good	Excellent	N/A
Board (Virgin Fibre)	○	○	○	○	○	○
Board (Recycled)	○	○	○	○	○	○
Board (SBS)	○	○	○	○	○	○
Laminations	○	○	○	○	○	○
Paper (Leaflet and Label)	○	○	○	○	○	○
Corrugate	○	○	○	○	○	○
Bulk Raw Materials (Inks, Varnishes, Adhesives, Foil, Film)	○	○	○	○	○	○
Transport and logistics	○	○	○	○	○	○
Non-Production / Indirects	○	○	○	○	○	○
MRO	○	○	○	○	○	○

Other (please specify)

16. How aware are you of the "Whitebook" process for the tracking and verifying purchasing savings?

I have not heard of the Whitebook	I have heard of the Whitebook, but I am not sure of what it is	I am fully aware of the Whitebook	I am engaged and use the whitebook	N/A
○	○	○	○	○

Additional Information / Comments

17. I believe that there has been benefit from the activity delivered into my business unit area

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
○	○	○	○	○

Additional Information / Comments

18. I believe that the savings numbers declared from the programme (within the Whitebook), and affecting my business unit, are robust and accurate

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	N/A
○	○	○	○	○

Additional Information / Comments

19. The current procurement programme is more effective than the previous Brainnet / consultancy led activity

I Strongly Disagree	I Disagree	I Agree	I Strongly Agree	I was not aware of the previous activity	N/A
○	○	○	○	○	○

Additional Information / Comments

Communications

20. Going forward - what would the be the best method of communicating the procurement activity to you

	No Interest	Of Some Interest	Preferred Method	N/A
Weekly Report	◯	◯	◯	◯
Comments / Additional Information				
Monthly Detailed Report	◯	◯	◯	◯
Comments / Additional Information				
Monthly Summary Report	◯	◯	◯	◯
Comments / Additional Information				
"The Chain" Newsletter	◯	◯	◯	◯
Comments / Additional Information				
The Intranet	◯	◯	◯	◯
Comments / Additional Information				
Webex	◯	◯	◯	◯
Comments / Additional Information				
Face to Face meetings	◯	◯	◯	◯
Comments / Additional Information				

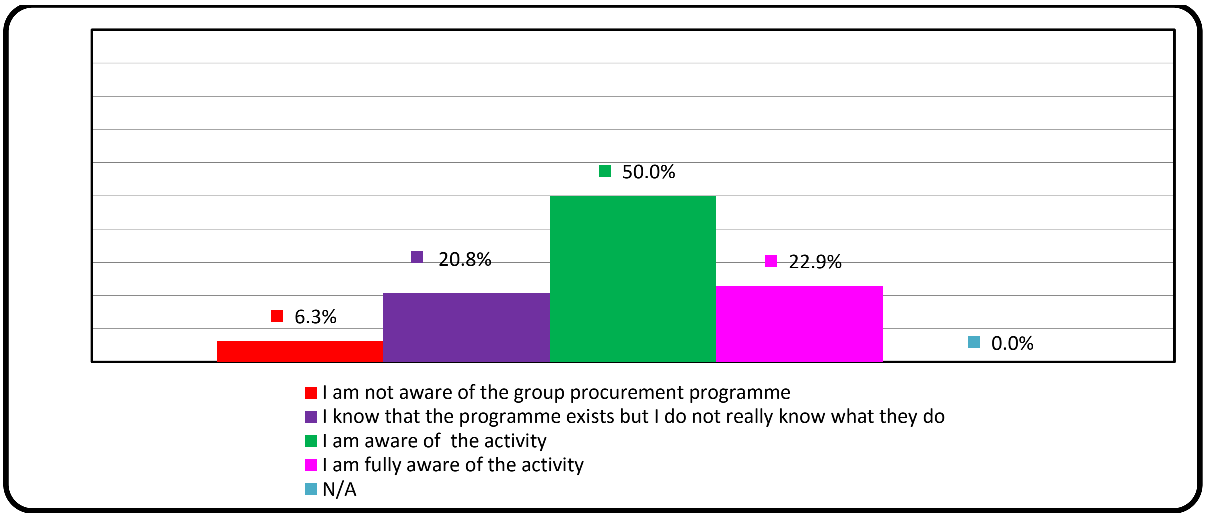
Appendix 14 - Perceptions Survey Results

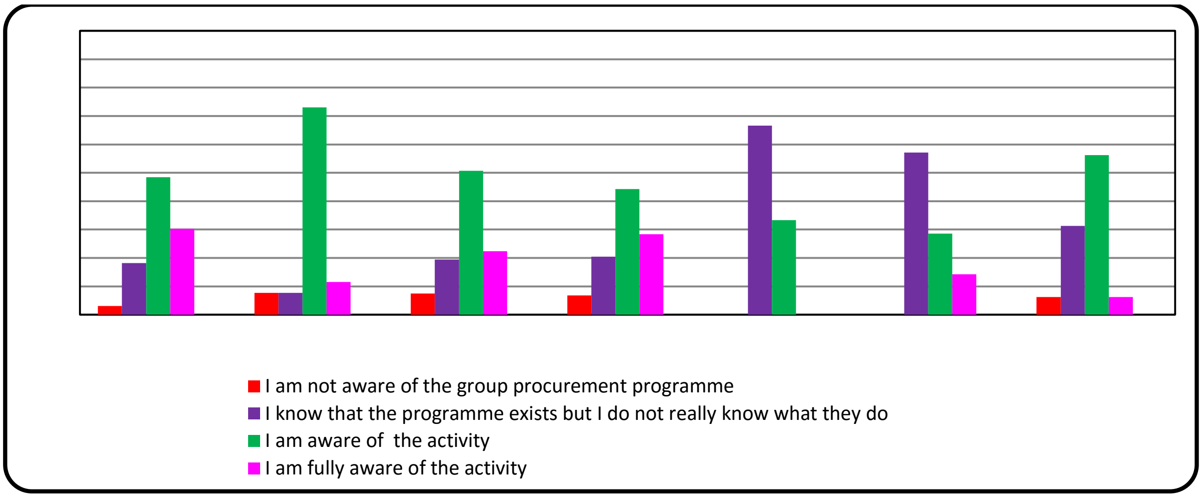
Response Summary

- Total Started Survey: 228 + 14(France) = 239
- Total Finished Survey: 211(92.5%) + 12(85.7) (France)
- Corporate - 33 (15.6%)
- EU Pharma - 13 (6.2%)
- UK & Ire Pharma - 68 (32.2%)
- UK Branded - 88 (41.7%)
- Plastics - 3 (1.4%)
- China - 7 (3.3%)
- US - 16 (7.6%)
- France - 12

PART 1 - AIMS AND OBJECTIVES

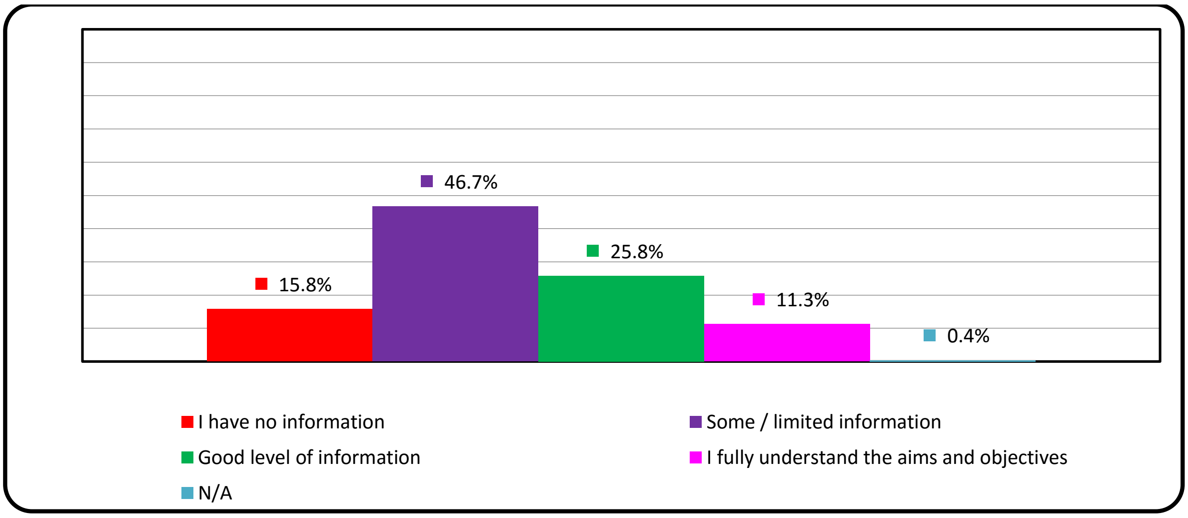
Q1. How aware are you of the group procurement activity?

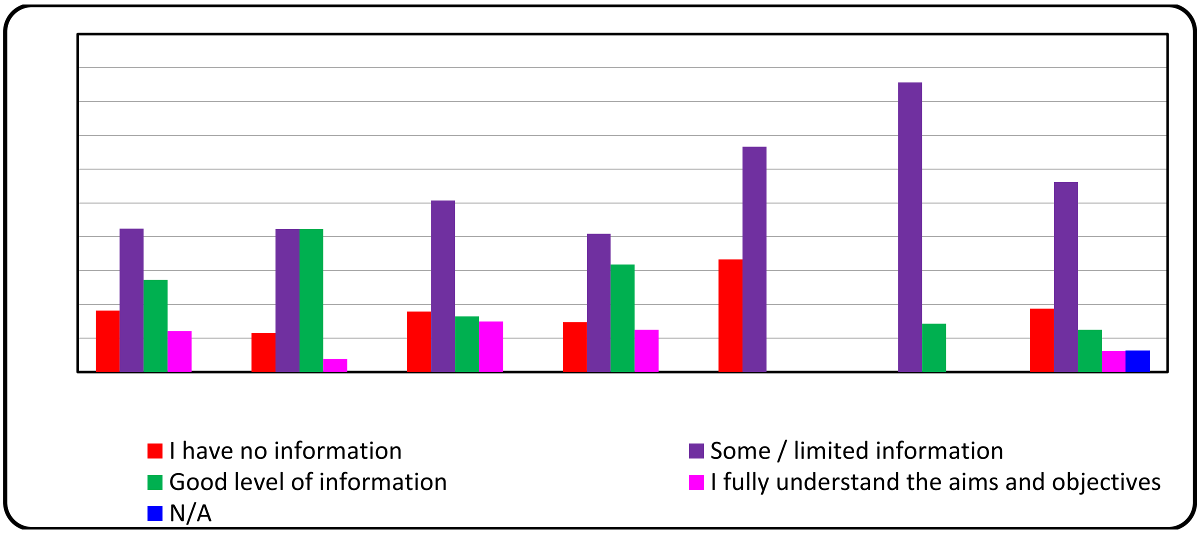




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I am not aware of the group procurement programme	3%	7.7%	7.5%	6.8%	0%	0%	6.3%
I know that the programme exists but I do not really know what they do	18.2%	7.7%	19.4%	20.5%	66.7%	57.1%	31.3%
I am aware of the activity	48.5%	73.1%	50.7%	44.3%	33.3%	28.6%	56.3%
I am fully aware of the activity	30.3%	11.5%	22.4	28.4%	0%	14.3%	6.3%
N/A	0%	0%	0%	0%	0%	0%	0%

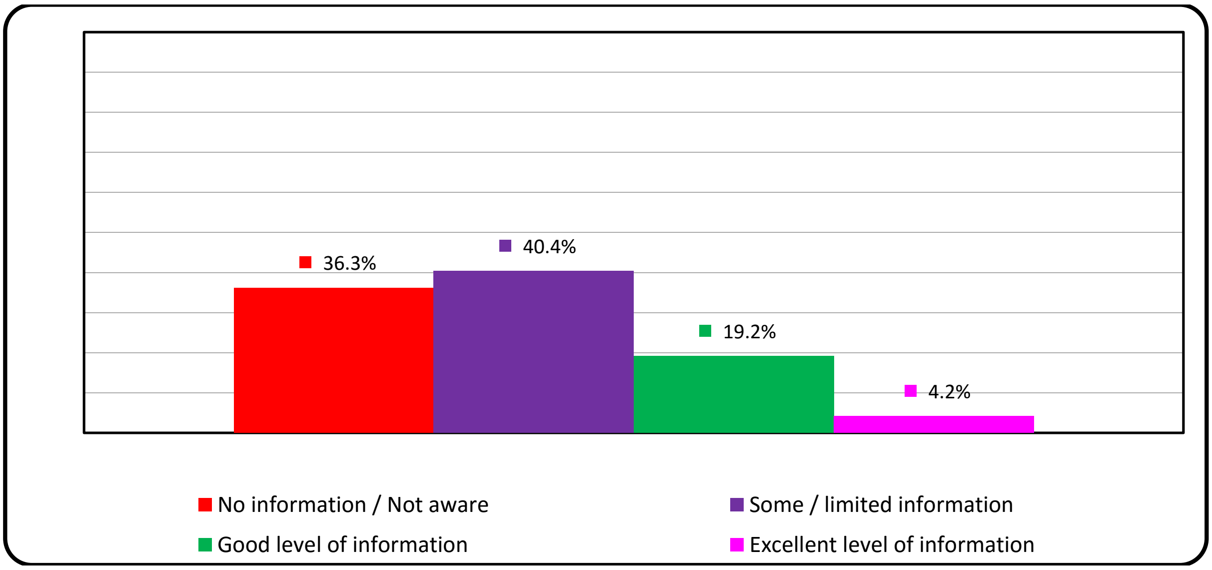
Q2. How well informed are you about the aims and objectives of the programme?

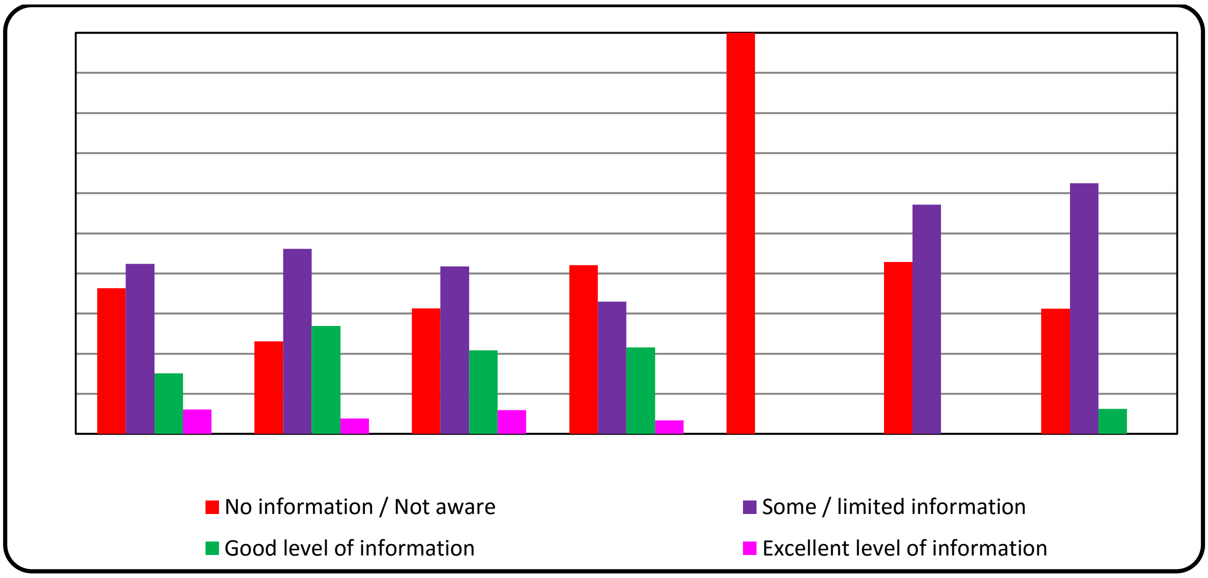




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I have no information	18%	12%	18%	15%	33%	0%	19%
Some / limited information	42%	42%	51%	41%	67%	86%	56%
Good level of information	27%	42%	16%	32%	0%	14%	13%
I fully understand the aims and objectives	12%	4%	15%	13%	0%	0%	6%
N/A	0%	0%	0%	0%	0%	0%	6%

Q3. How aware are you of the approach taken by group procurement e.g., The Total Acquisition Cost (TAC) triangle and the category management gateway process?

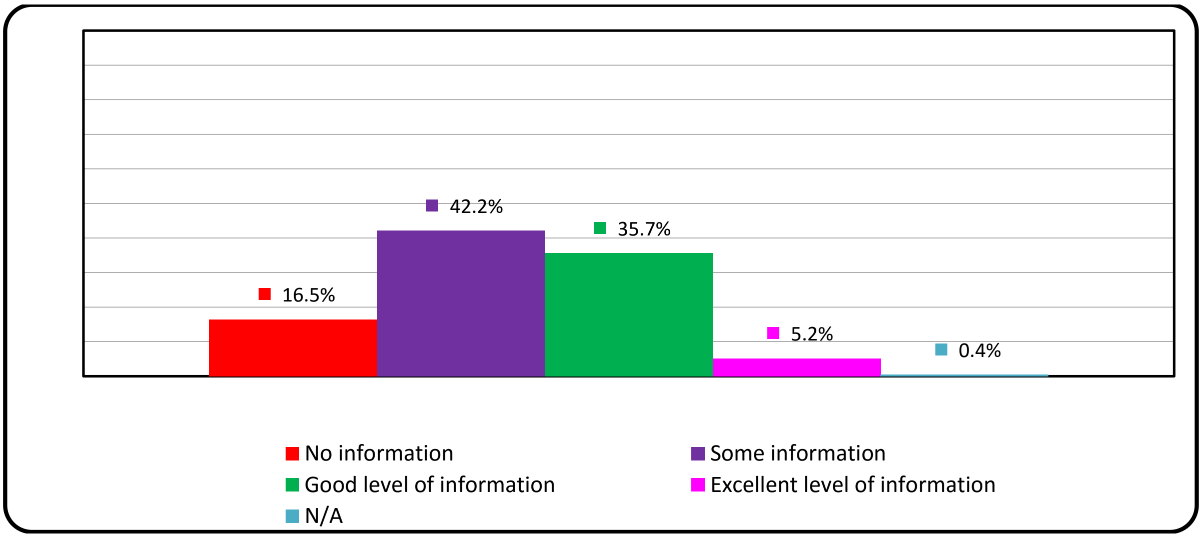


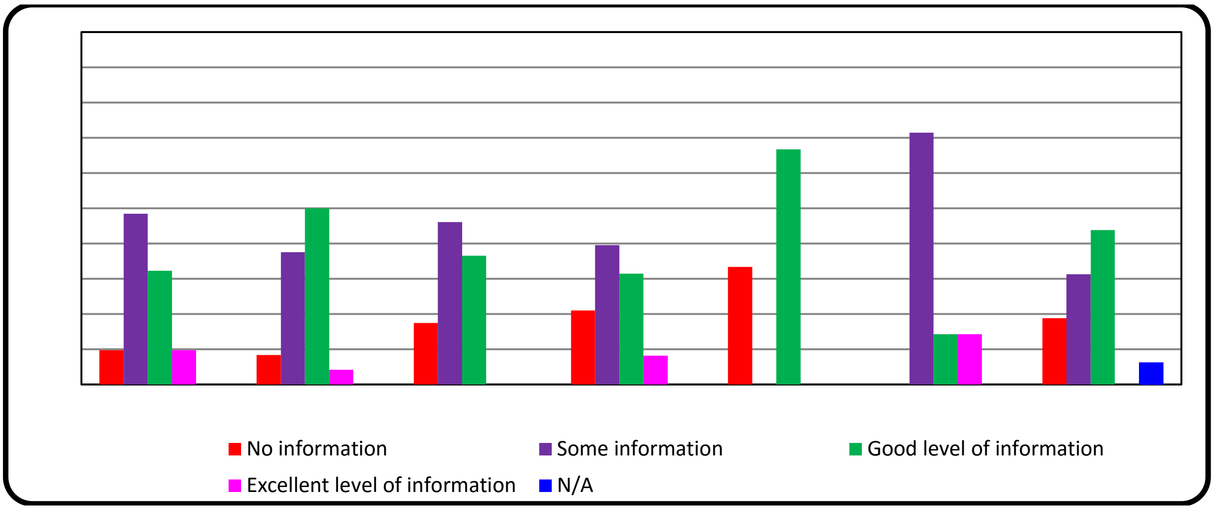


	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
No information / Not aware	36.4%	23.1%	31.3%	42%	100%	42.9%	31.3%
Some / limited information	42.4%	46.2%	41.8%	33%	0%	57.1%	62.5%
Good level of information	15.2%	26.9%	20.9%	21.6%	0%	0%	6.3%
Excellent level of information	6.1%	3.8%	6%	3.4%	0%	0%	0%

PART 2 - ROLES AND RESPONSIBILITIES

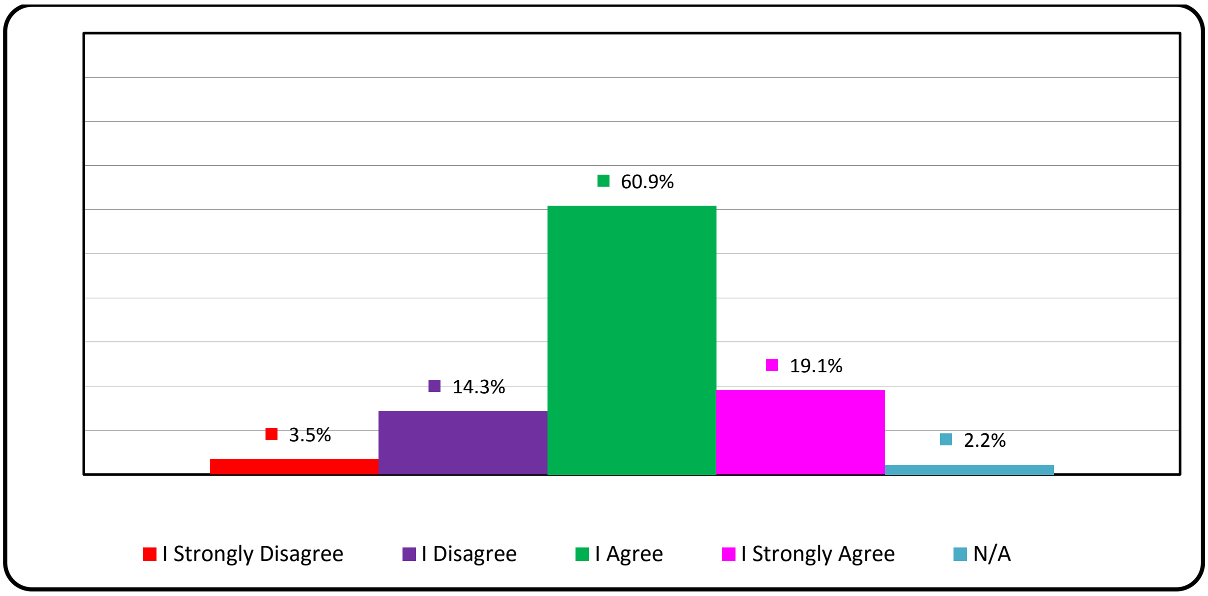
Q4. How well informed are you of the specific roles and responsibilities within the team?

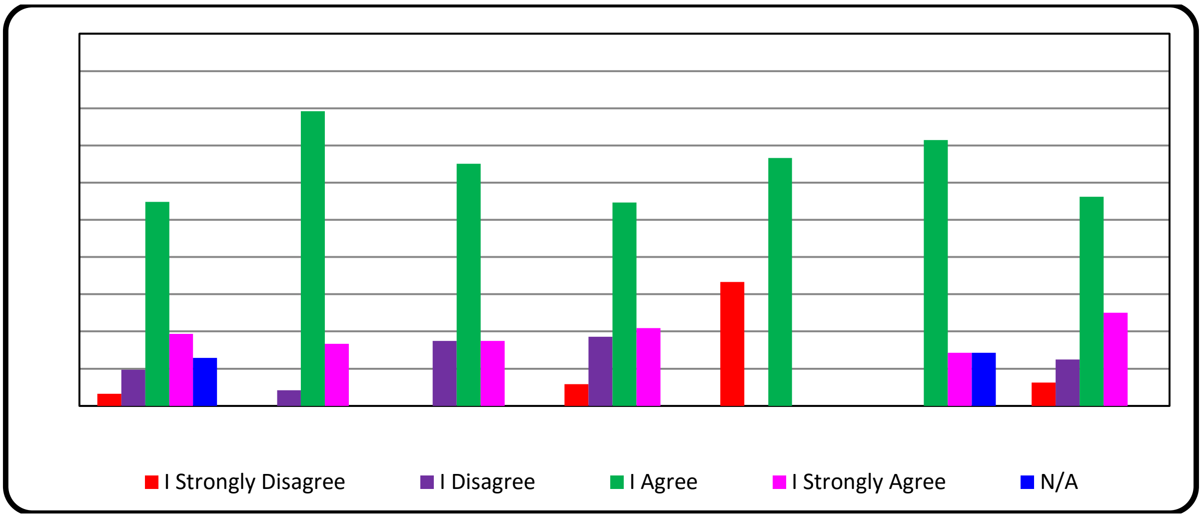




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
No information	9.7%	8.3%	17.5%	20.9%	33.3%	0%	18.8%
Some information	48.4%	37.5%	46%	39.5%	0%	71.4%	31.3%
Good level of information	32.3%	50%	36.5%	31.4%	66.7%	14.3%	43.8%
Excellent level of information	9.7%	4.2%	0%	8.1%	0%	14.3%	0%
N/A	0%	0%	0%	0%	0%	0%	6.3%

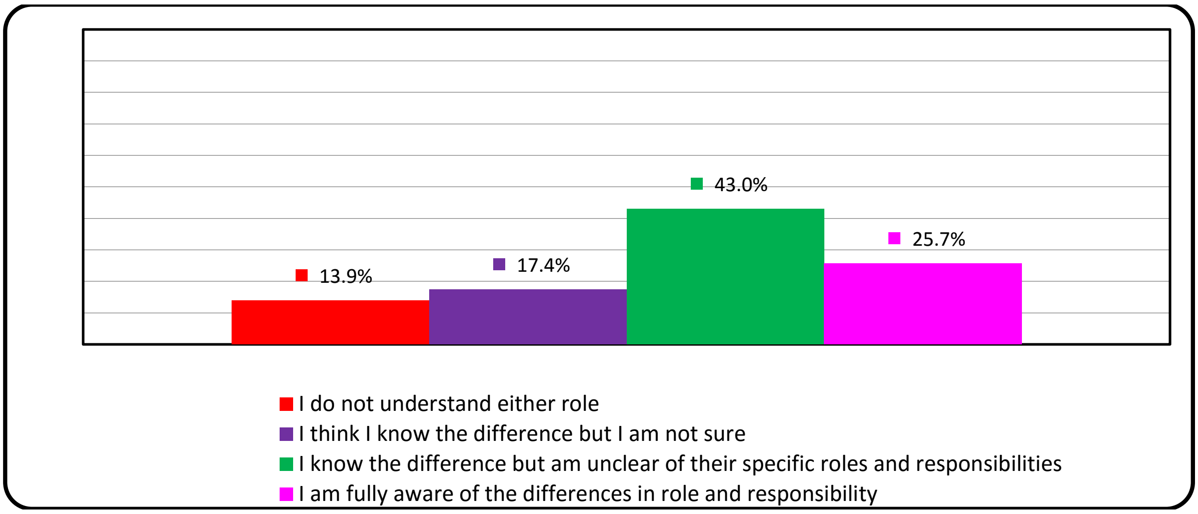
Q5. I know who to speak with if I need assistance with a purchasing issue.

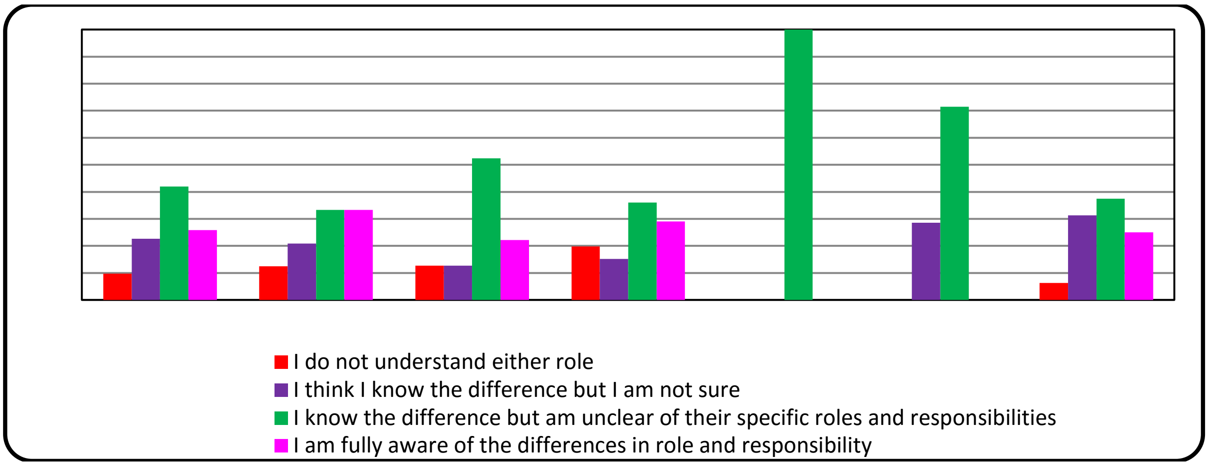




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	9.7%	8.3%	17.5%	20.9%	33.3%	0%	18.8%
I Disagree	48.4%	37.5%	46%	39.5%	0%	71.4%	31.3%
I Agree	32.3%	50%	36.5%	31.4%	66.7%	14.3%	43.8%
I Strongly Agree	9.7%	4.2%	0%	8.1%	0%	14.3%	0%
N/A	0%	0%	0%	0%	0%	0%	6.3%

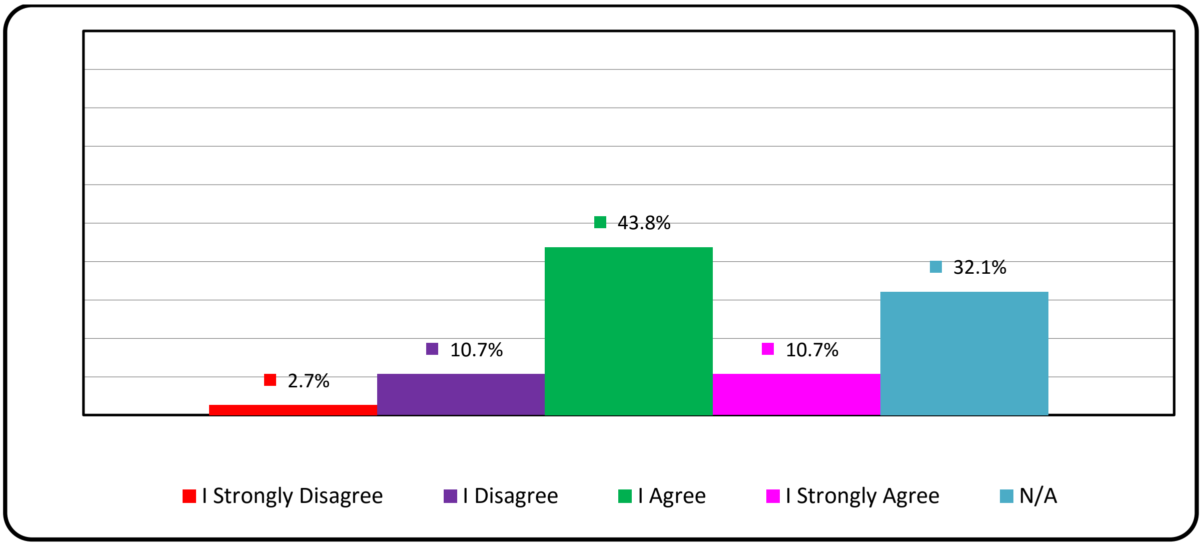
Q6. I understand the difference between a Category Manager and a Regional Purchasing Manager (RPM).

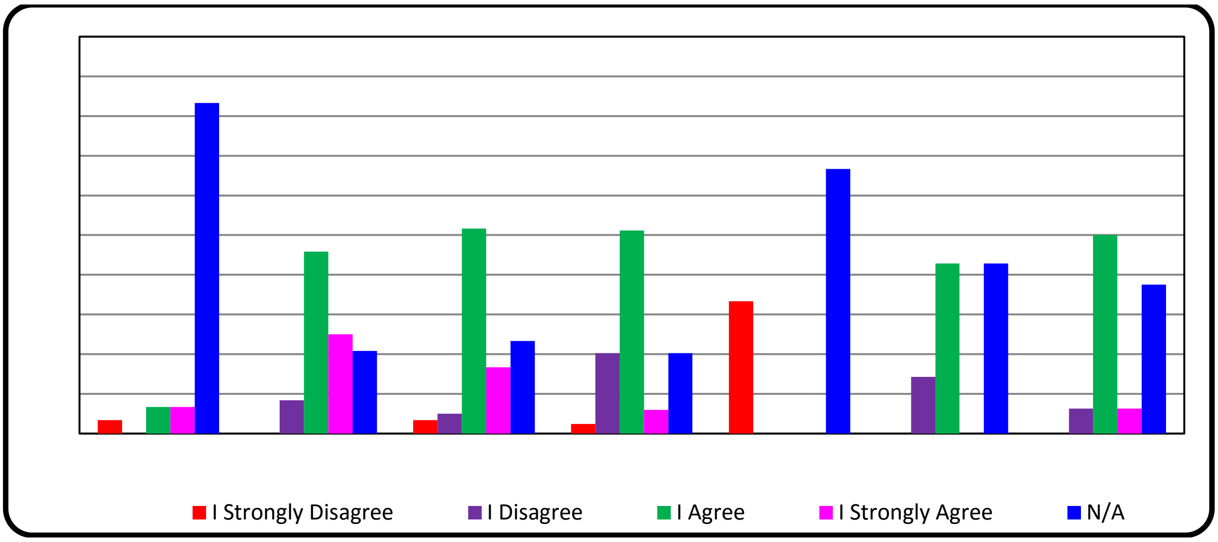




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I do not understand either role	9.7%	12.5%	12.7%	19.8%	0%	0%	6.3%
I think I know the difference but I am not sure	22.6%	20.8%	12.7%	15.1%	0%	28.6%	31.3%
I know the difference but am unclear of their specific roles and responsibilities	41.9%	33.3%	52.4%	36%	100%	71.4%	37.5%
I am fully aware of the differences in role and responsibility	25.8%	33.3%	22.2%	29.1%	0%	0%	25%

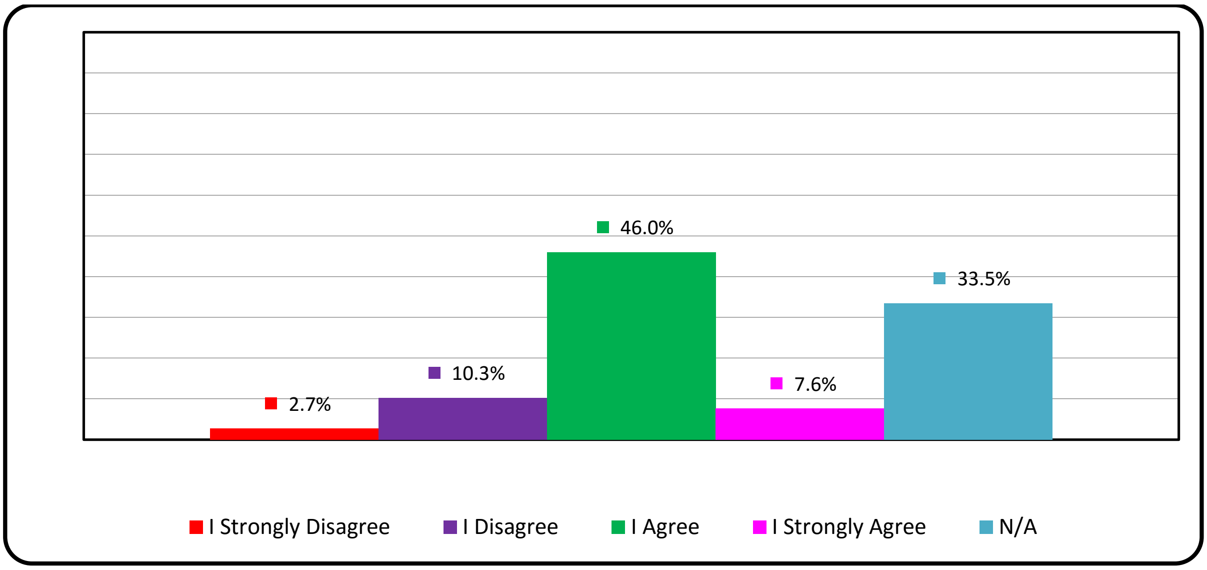
Q7. Having the Regional Purchasing Manager represent my specific business unit interests within the procurement programme work well.

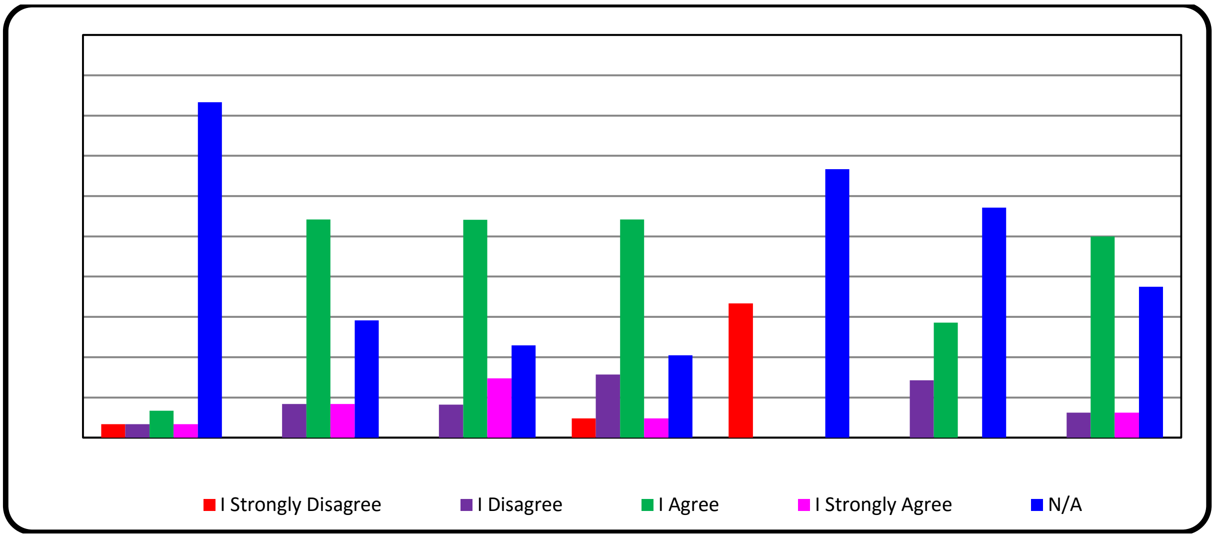




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	3.3%	0%	3.3%	2.4%	33.3%	0%	0%
I Disagree	0%	8.3%	5%	20.2%	0%	14.3%	6.3%
I Agree	6.7%	45.8%	51.7%	51.2%	0%	42.9%	50%
I Strongly Agree	6.7%	25%	16.7%	6%	0%	0%	6.3%
N/A	83.3%	20.8%	23.3%	20.2%	66.7%	42.9%	37.5%

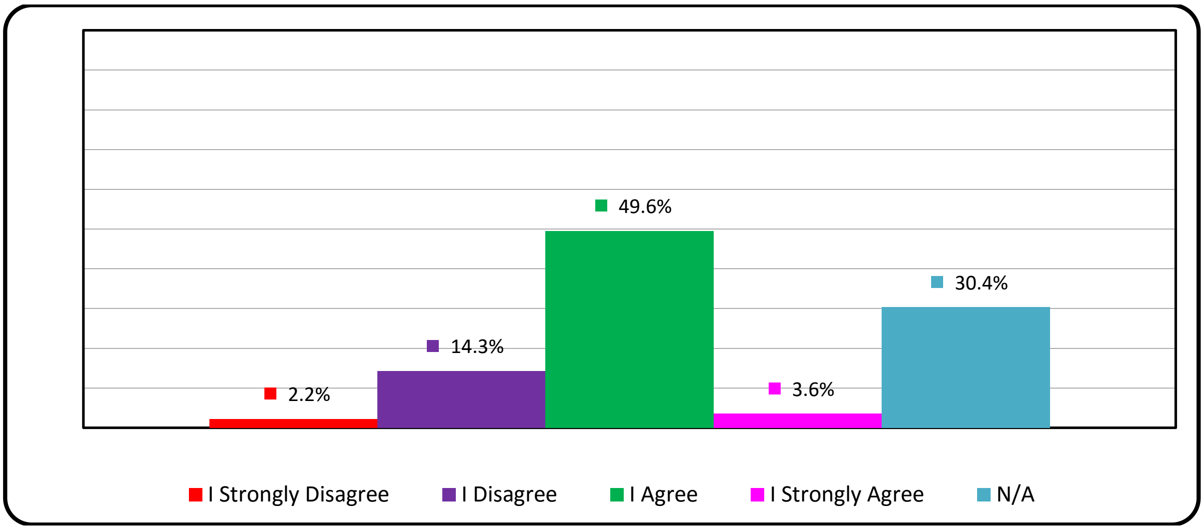
Q8. The Regional Purchasing Manager understands the requirements of the business unit that I operate within.

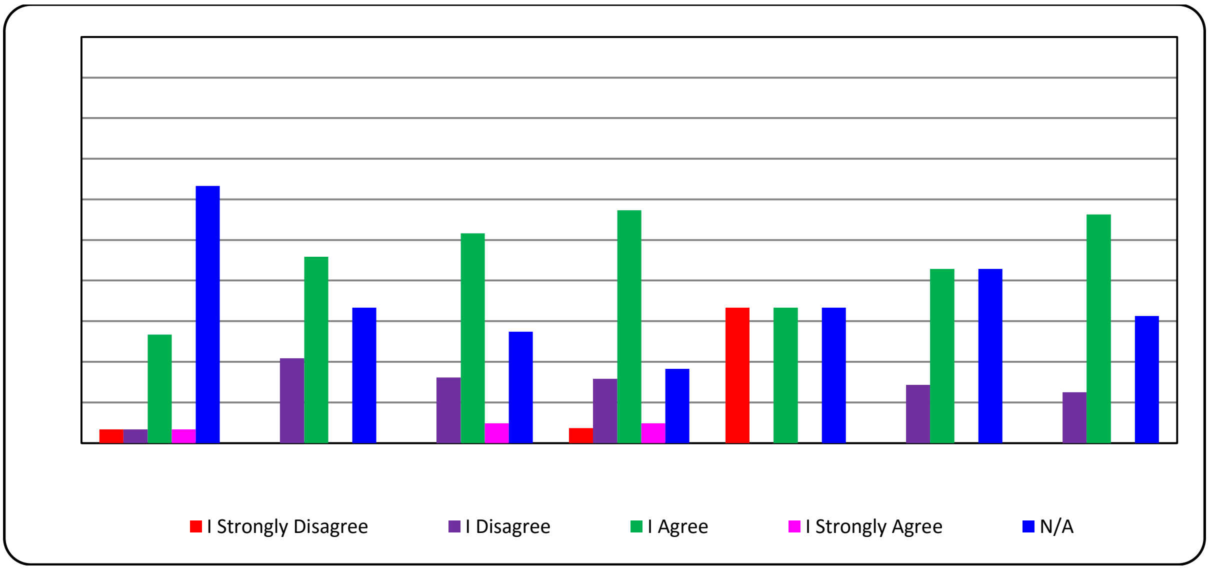




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	3.3%	0%	0%	4.8%	33.3%	0%	0%
I Disagree	3.3%	8.3%	8.2%	15.7%	0%	14.3%	6.3%
I Agree	6.7%	54.2%	54.1%	54.2%	0%	28.6%	50%
I Strongly Agree	3.3%	8.3%	14.8%	4.8%	0%	0%	6.3%
N/A	83.3%	29.2%	23%	20.5%	66.7%	57.1%	37.5%

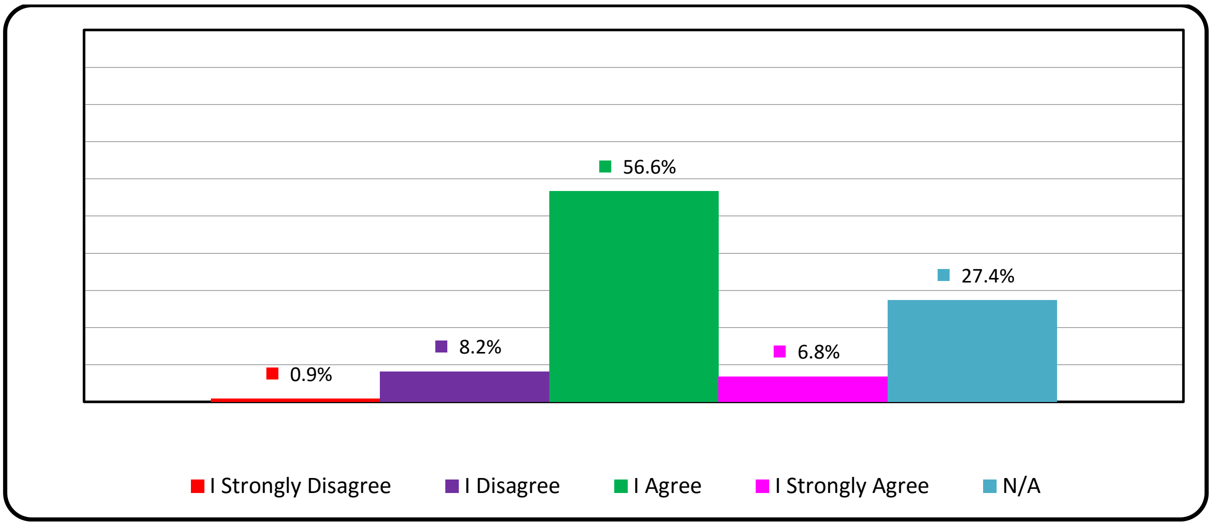
Q9. The Category Managers understand the requirement of the business unit that I operate within.

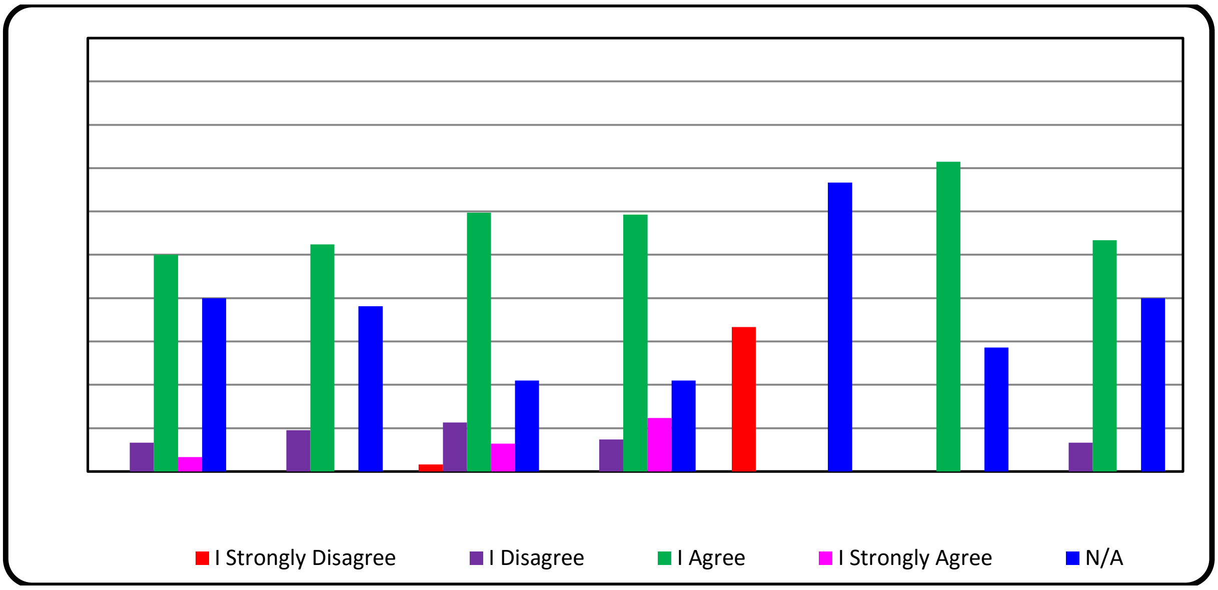




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	3.3%	0%	0%	3.7%	33.3%	0%	0%
I Disagree	3.3%	20.8%	16.1%	15.9%	0%	14.3%	12.5%
I Agree	26.7%	45.8%	51.6%	57.3%	33.3%	42.9%	56.3%
I Strongly Agree	3.3%	0%	4.8%	4.9%	0%	0%	0%
N/A	63.3%	33.3%	27.4%	18.3%	33.3%	42.9%	31.3%

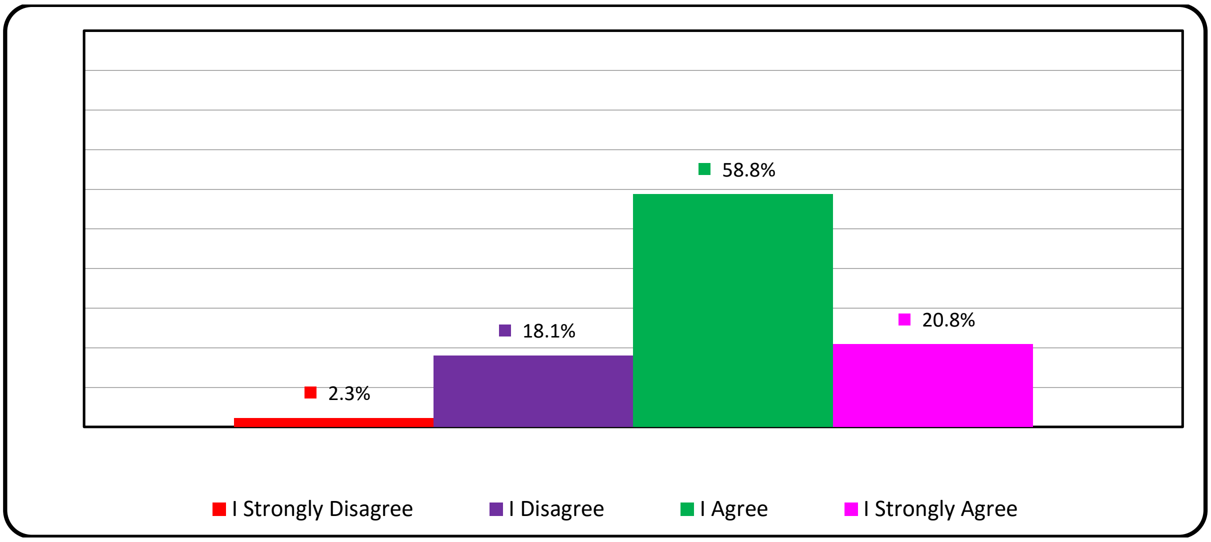
Q10. Category Managers bring a good insight and show a good understanding of the categories that they have responsibility for.

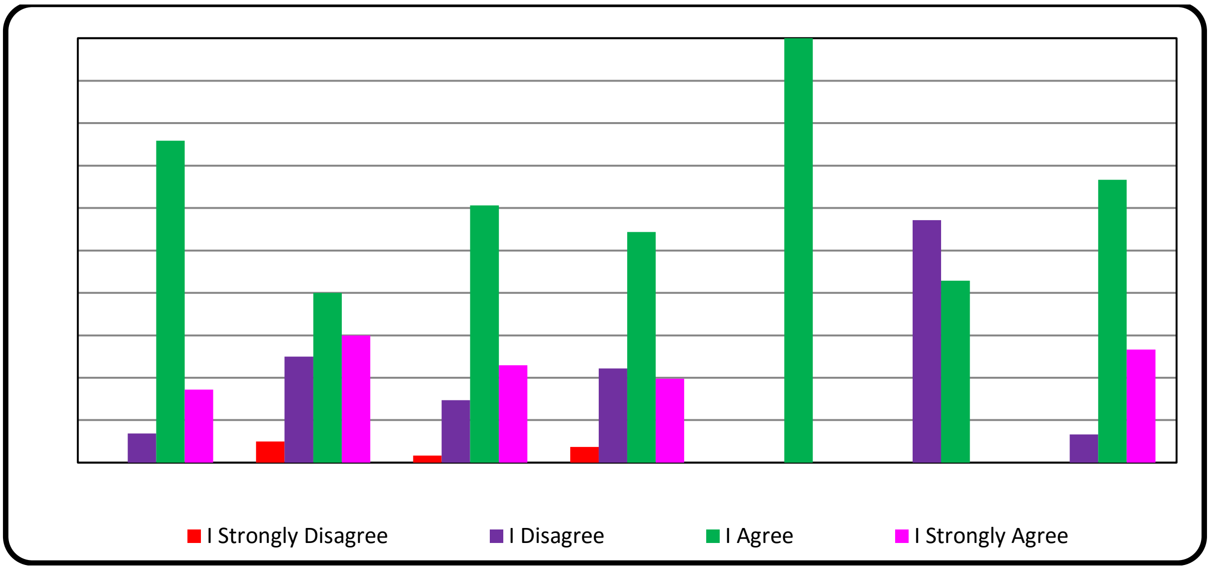




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	0%	0%	1.6%	0%	33.3%	0%	0%
I Disagree	6.7%	9.5%	11.3%	7.4%	0%	0%	6.7%
I Agree	50%	52.4%	59.7%	59.3%	0%	71.4%	53.3%
I Strongly Agree	3.3%	0%	6.5%	12.3%	0%	0%	0%
N/A	40%	38.1%	21%	21%	66.7%	28.6%	40%

Q11. I believe that the procurement activity is concerned with more than just prices e.g., Quality, Cost, Delivery, Cash, Innovation etc.





	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	0%	5%	1.6%	3.7%	0%	0%	0%
I Disagree	6.9%	25%	14.8%	22.2%	0%	57.1%	6.7%
I Agree	75.9%	40%	60.7%	54.3%	100%	42.9%	66.7%
I Strongly Agree	17.2%	30%	23%	19.8%	0%	0%	26.7%

Q12. Are there any additional areas that you believe should be addressed by the procurement programme?

Corporate

- Need to have a current list of who to contact for each item type.
- The first area to tackle is the price based items such as Printer paper / printer ink etc. i.e., the consumables which currently get purchased by individual sites. There are likely to be savings based on a group deal.
- To be discussed at forthcoming IT review.
- Specific procurement risks Fraud risk assessment Controls over purchasing processes at sites measuring procurement results.
- Access to list of preferred suppliers / equipment.
- Spend more time with production management understanding the issues created by non-conforming supply.
- I think more use of the intranet explaining actives / developments would help - as long as the language is clear & simple to understand.
- We have a standard coding system for board materials. When implementing Vision II throughout the sites is there a recommended coding structure for other Raw Materials. XXXXXX did provide some information but this was just a suggestion.

UK Branded

- Still work in progress and I believe the structure has and will bring significant benefit to the business but needs that continued empathy with the requirements of the individual business units.
- More emphasis on working capital improvement
- More involvement and effort with outlying factories such as Poland.
- Innovation is an area where more needs to be done though I appreciate that purchasing needs to know what the business wants or would like before it can do something about it.
- I don't know everything they purchase.
- No. I think the current structure works very well in the main, save some lack of clarity regarding the RPM responsibilities.
- A working knowledge of the supplier base being tendered; suppliers have complained they had never met or could get responses from contacts.
- Having dealt with XXXXXX I know and understand his role and he inter acts well with me and my customer Pricing for board is not easily explained / understood and can cause confusion especially when my customer has a high degree of market knowledge - this is a difficult area but could be clearer. May be a presence at our Sales meeting once or twice a year would be

good I think more could be gained by understanding how "you guys" play the mills and the sort of techniques used.

- I don't know anything about the procurement programme.
- Tooling costs at a local level don't seem to be very well controlled in my opinion.
- If a fully detailed brief is sent I will endeavour to gain a full understanding. This in turn could raise suggestions on how to improve the programme.
- Overall good enthusiastic people. Many relatively inexperienced but developing and would benefit a lot from working more closely with sites not just to better understand the businesses but to develop themselves and gain support also.
- No, I believe the programme offers good support when required e.g., looking for new products etc.
- Perhaps more involvement with key customers. I know this has started with some Pharma customers and we have now had meetings with XXXXXX so we should push on from here.
- H2 - I believe we have been given a really good piece of software but it needs to be given the time and investment to make it what the users require. A list of the issues and enhancements we are currently having have been supplied to the team.
- Yes, they should look at total cost not just price per unit.
- Improved networking between commodity managers and key account team could yield a stronger end to end supply chain model.
- Everyday support to site. Often hard to get a timely response to queries.
- I am not aware of the full programme so I'm unable to comment on any additions that could be made.
- Compressed Air, Inc. the equipment & servicing. Currently we manage locally but given the number of CSK sites and the requirement for compressed air there must be a high level of commercial leverage if dealt with by Group to the benefit of all sites.
- More involvement in the implementation process following a tender process. Also a post implementation audit to see whether the claimed benefits and savings have been delivered.
- Briefings shared electronically to the sales team so market intelligence is shared first hand. This worked well in the past.
- I think clarifying how the procurement team can assist with sourcing new machinery and potential negotiations could be very useful to operations.
- At times the procurement objectives, seem to oppose the sites objectives. It is critical that decisions include quality and run-ability factors not just cost. It is also difficult to capture each sites requirements vs a group decision. Also for different sites to move away from suppliers that are tried and tested, where a good relationship has been developed.

EU Pharma

- At the sides our resources at purchasing are limited, in several instance new updates of info are asked too frequent, which is a load on the side.

- More room for local initiatives.
- information, and explaining the added value to sales, as I do believe they can play an even important role in our relationships to customers as for instance Commercial managers have.
- Travelling and the opportunities for video-conference.

UK &Ireland Pharma

- Possible customer AV Margin insights to support focused projects.
- Print chemicals.
- The only reviews between the site and CM are currently organised by the site, compared to the RPM who regularly challenges and assists with projects.
- Structure, goals, and achievements are not freely available so It’s difficult to be absolute on my opinion.
- Hi, thank you for this opportunity to add my views within this survey. In terms of my role as Tender Manager I will have £130m this year come through my desk for which Material is the biggest makeup of the costs. To have the experience of the Commodity Managers on board has been an aid.

However;

- as with all processes it could be improved in terms of stream lining and communication. I would certainly benefit from having my responses earlier in the tender process for which I am aware is not possible as the clock starts the day the data is received (can we work on improving this element).
- Style of communication and links into site updates. This should be aimed at regional managing directors and GMs; they would have ideas and buy in due to opportunity to input.
- Second hand / used finishing equipment.
- An improvement would be continuity of category manager. and also the true measurement of changes to material, for example a measurement of production cost applicable to a move to a cheaper material.
- I believe that a meeting should be set up whereby the procurement team present to the stakeholders to share their objectives and knowledge of the various materials available to us with cost advantages, innovations and future trends to name just a few points.
- Better liaison with Sales for 'special' large New Business Opportunities. Continue with the Customer Support activity-e.g., Board deals, support of Alliance partner’s procurement. Keep Sales informed of the latest developments in Procurement globally that may be of use/interest/in use by our Key Customers. Make the team available to attend with Sales on specific meetings. Keep Sales aware of new products especially with lower pricing so we can include in our RFQ's seeking Innovation and intelligent Cost Out Proposals.
- Better awareness within office environment of the objectives and day to day constraints of the way we transact and the reasons for it.

- On a general point perhaps a more mutual understanding of our Customers (Key Accounts) may be of benefit.
- A list of category managers and areas that they are covering would be useful as for some items of expenditure i am unsure of who to approach.

US

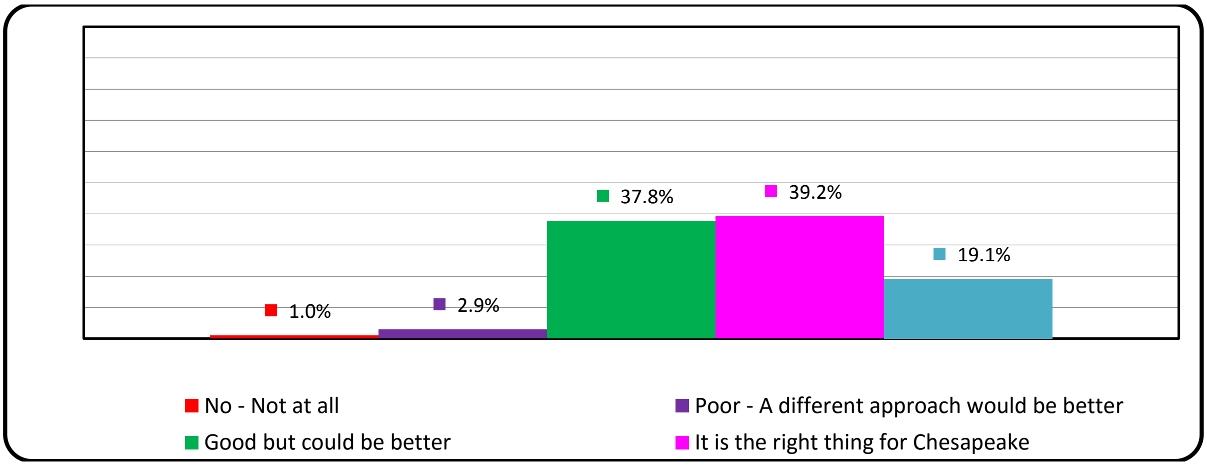
- Accounting practices, and the excessive paperwork required to process payments and receipts would be an area I would like to see reviewed.
- XXXXXX has been working closely with me to help achieve company goals related to purchasing.
- Better communication, in regards to roles and functions of each particular role. I would also like to see more roles and tasks being congruent across NA/ and Europe.
- We should be reducing the amount of time spent printing and filing paperwork. We have a new V2 here in Evansville and Fairfield now, yet we tend to do many things on paper which could be handled within the system.

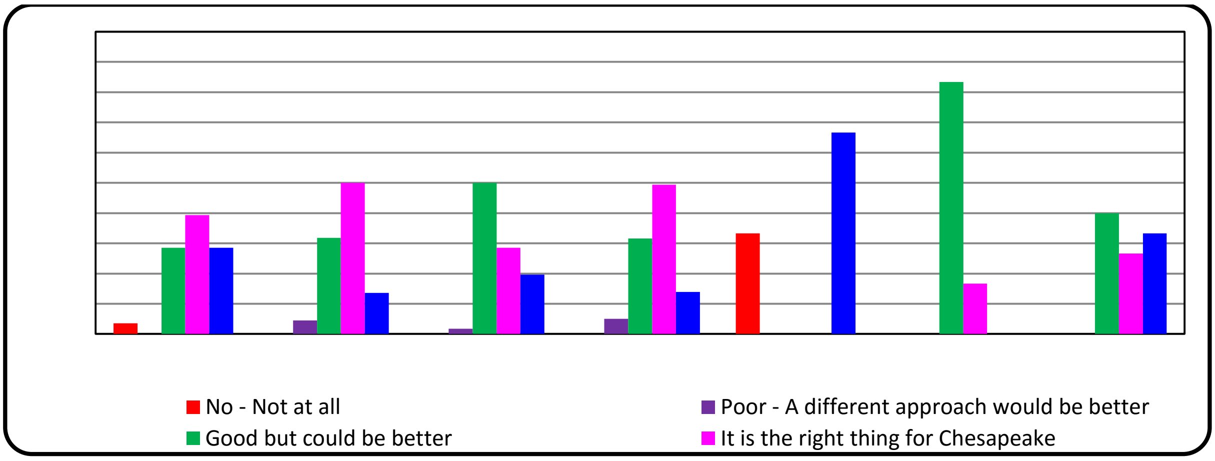
China

- Can't comment since I don't know much about the programme.

PART 3 - EFFECTIVENESS

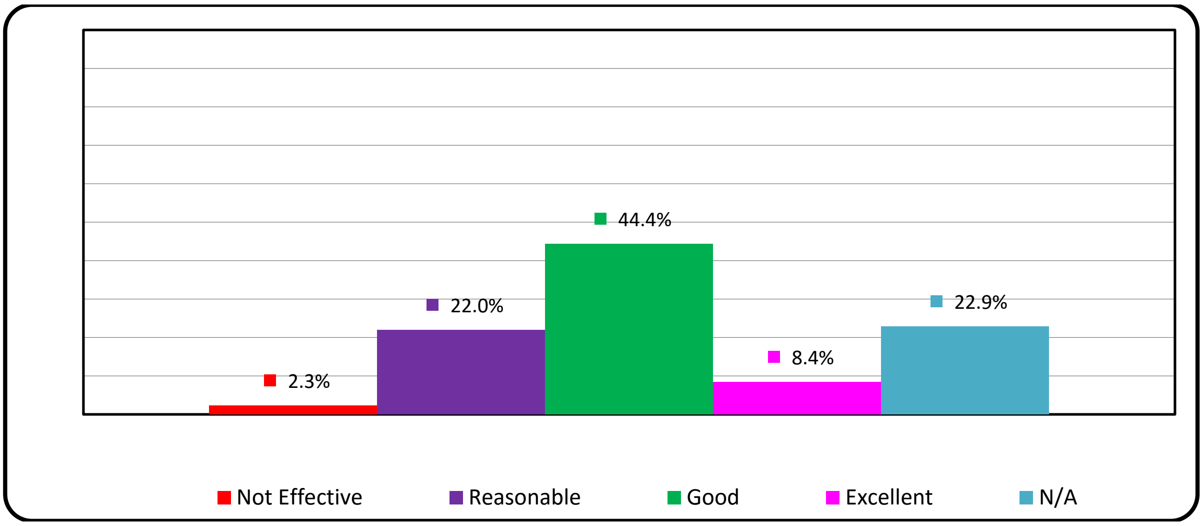
Q13. Do you think that the current Group Procurement Programme is right for Chesapeake?

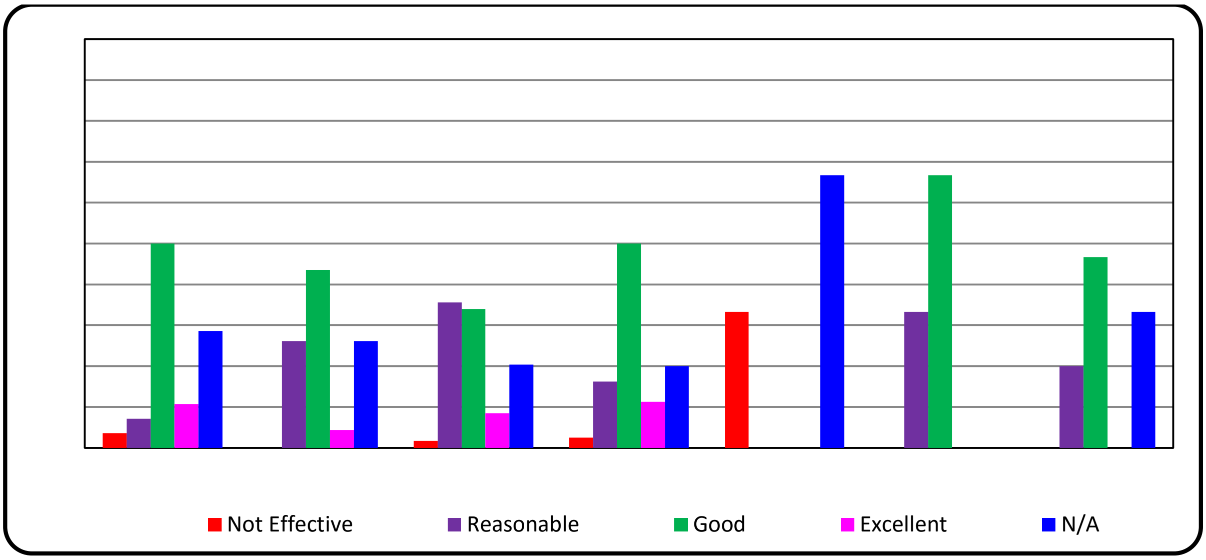




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
No - Not at all	0%	0%	1.6%	0%	33.3%	0%	0%
Poor - A different approach would be better	6.7%	9.5%	11.3%	7.4%	0%	0%	6.7%
Good but could be better	50%	52.4%	59.7%	59.3%	0%	71.4%	53.3%
It is the right thing for Chesapeake	3.3%	0%	6.5%	12.3%	0%	0%	0%
N/A	40%	38.1%	21%	21%	66.7%	28.6%	40%

Q14. In your opinion, how effective is Group Procurement in terms of adding value to the Chesapeake organisation?

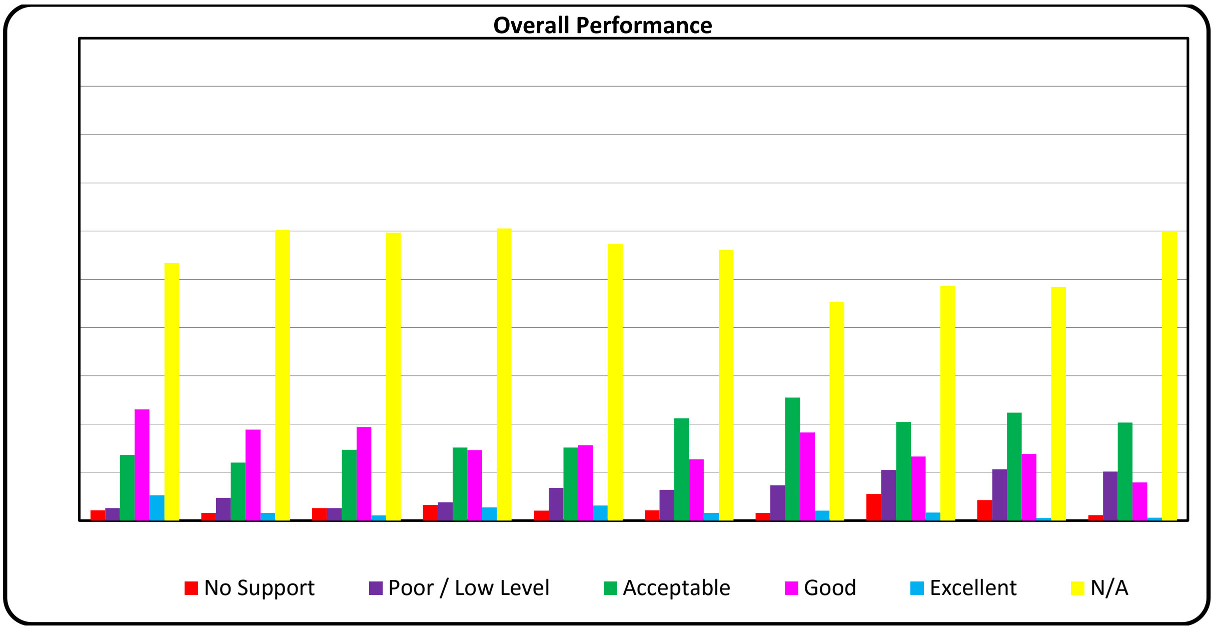


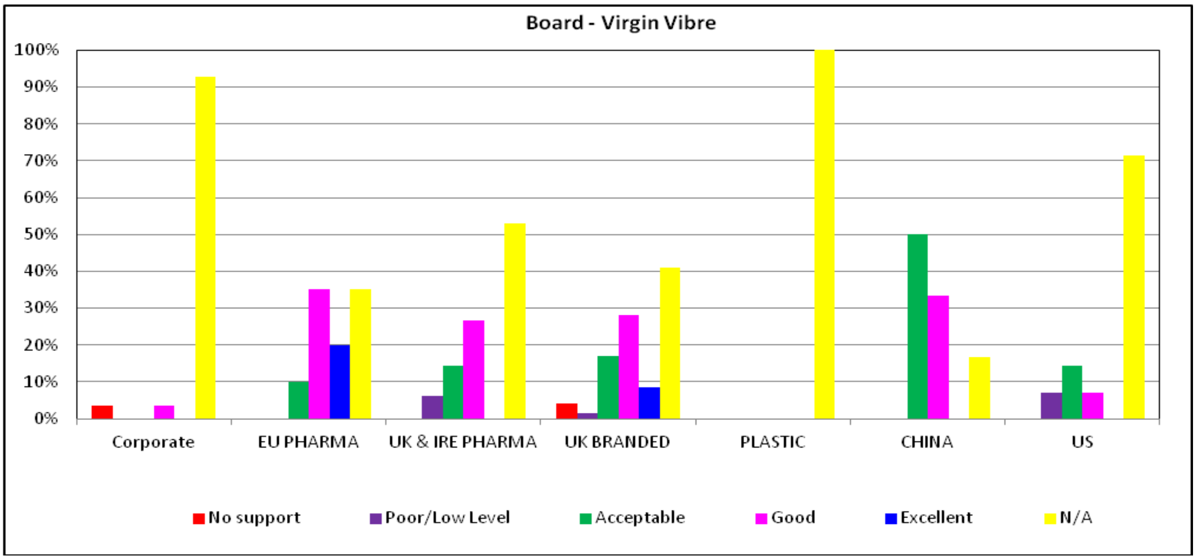


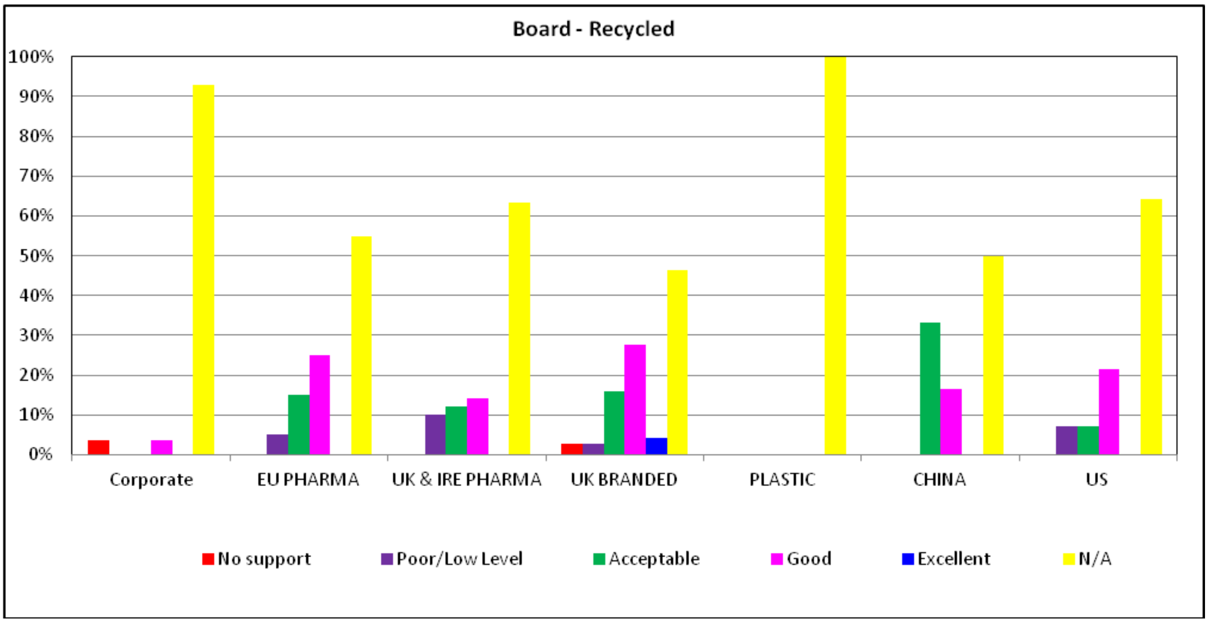
	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
Not Effective	3.6%	0%	1.7%	2.5%	33.3%	0%	0%
Reasonable	7.1%	26.1%	35.6%	16.3%	0%	33.3%	20%
Good	50%	43.5%	33.9%	50%	0%	66.7%	46.7%
Excellent	10.7%	4.3%	8.5%	11.3%	0%	0%	0%
N/A	28.6%	26.1%	20.3%	20%	66.7%	0%	33.3%

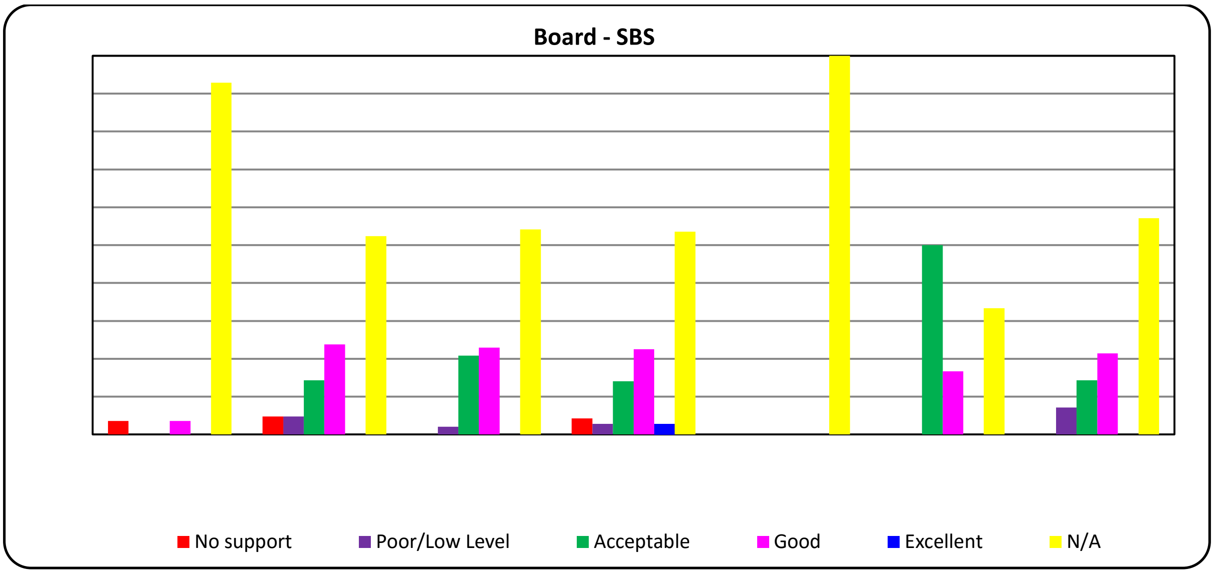
Q15. How effective is the category area in relation to delivery of benefit to your specific business unit?

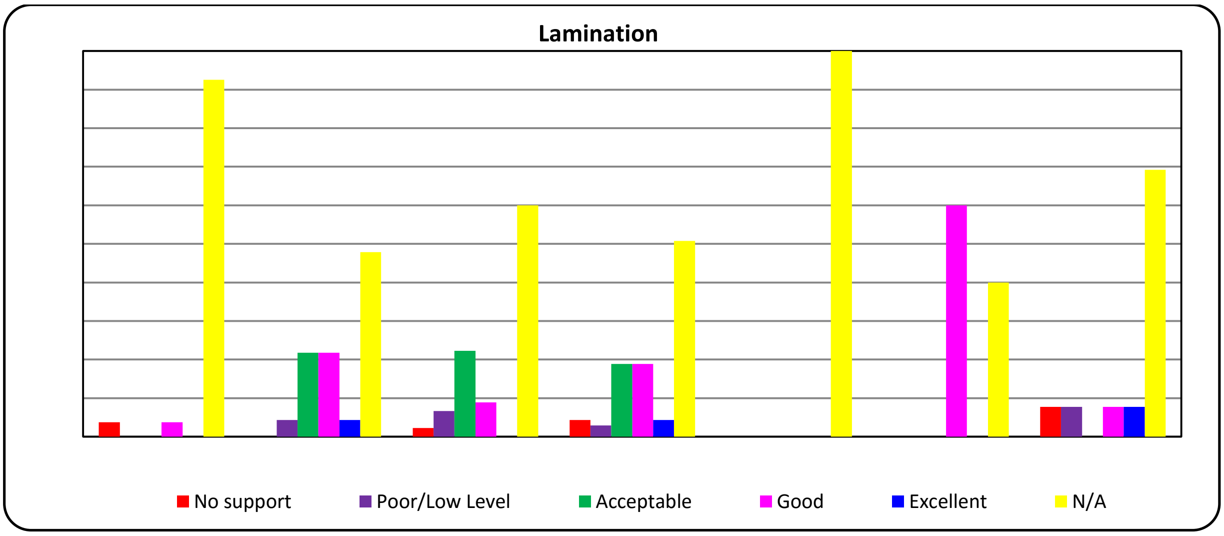
Category	No Support	Poor / Low Level	Acceptable	Good	Excellent
Board (Virgin Fibre)	4.9%	7.3%	31.7%	47.6%	8.5%
Board (Recycled)	4.3%	13.0%	30.4	47.8%	4.3%
Board (SBS)	5.6%	7.0%	38	46.5%	2.8%
Laminations	9.1%	10.6%	39.4	34.8%	6.1%
Paper (Leaflet and Label)	5.3%	13.3%	36	37.3%	8%
Corrugate	5.4%	14.9%	48.6	28.4%	2.7%
Bulk Raw Materials (Inks, Varnishes, Adhesives, Foil, Film)	3.2%	13.7%	48.4	31.6%	3.2%
Transport and logistics	9.6%	14.9%	44.7	25.5%	5.3%
Non-Production / Indirects	8.0%	18.4%	44.8	27.6%	1.1%
MRO	3.2%	23.8%	52.4	19.0%	1.6%

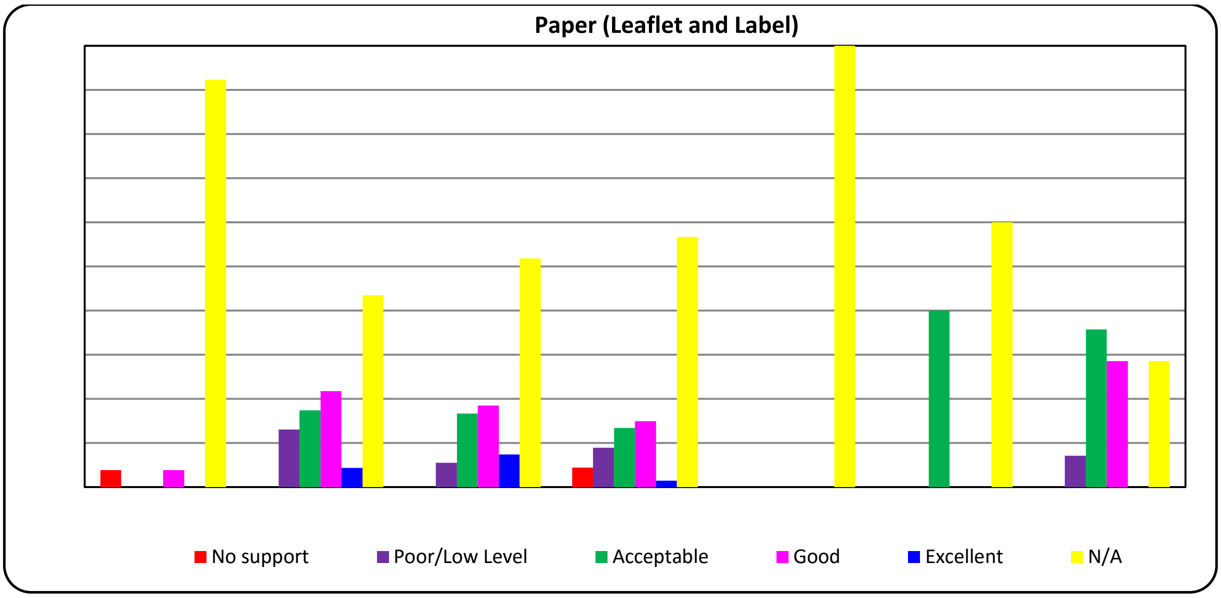

Overall Performance
No Support
Poor / Low Level
Acceptable
Good
Excellent
N/A

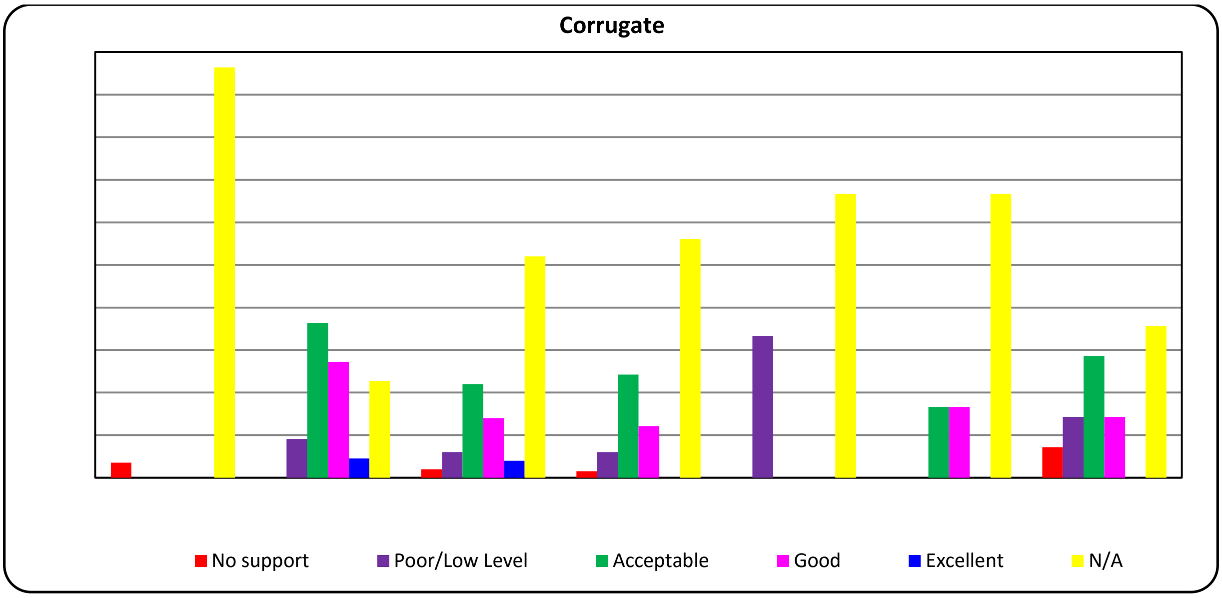

Board - Virgin Vibre
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Corporate
EU PHARMA
UK & IRE PHARMA
UK BRANDED
PLASTIC
CHINA
US
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

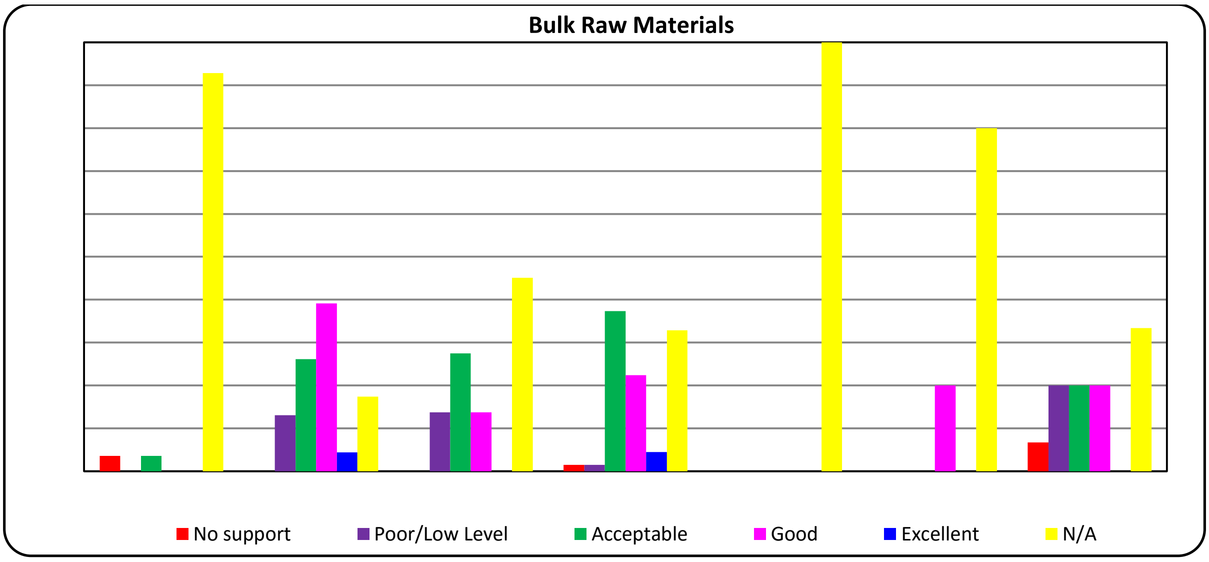

Board - Recycled
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Corporate
EU PHARMA
UK & IRE PHARMA
UK BRANDED
PLASTIC
CHINA
US
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

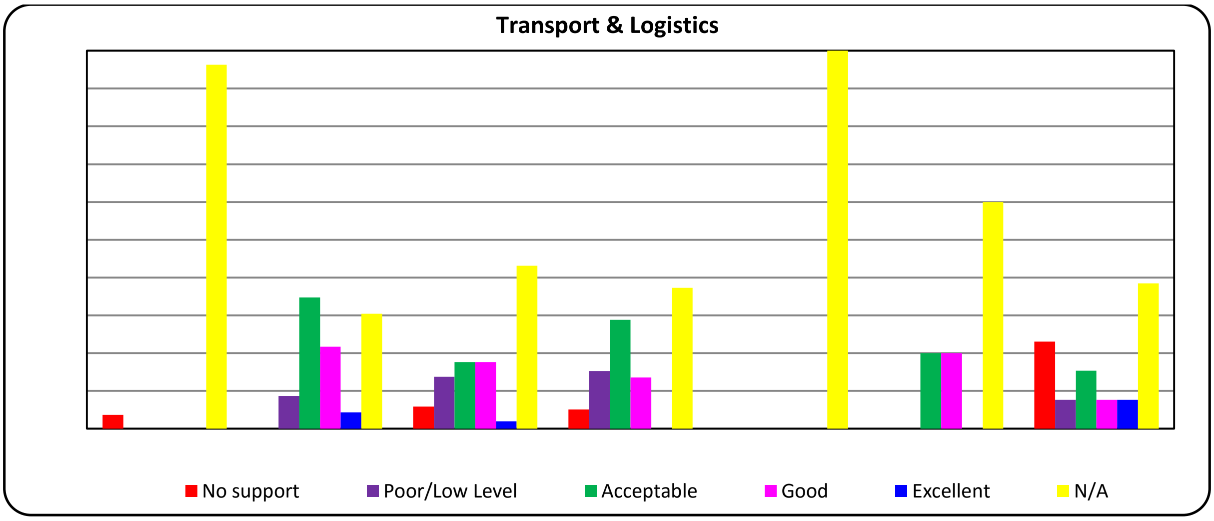

Board - SBS
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

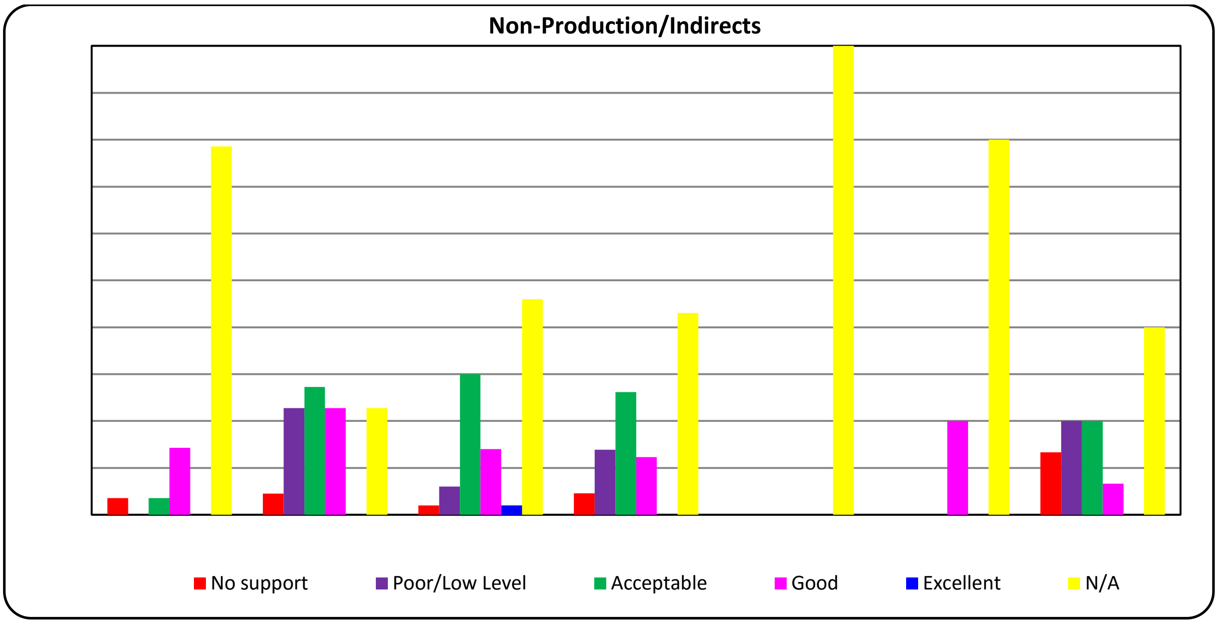

Lamination
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

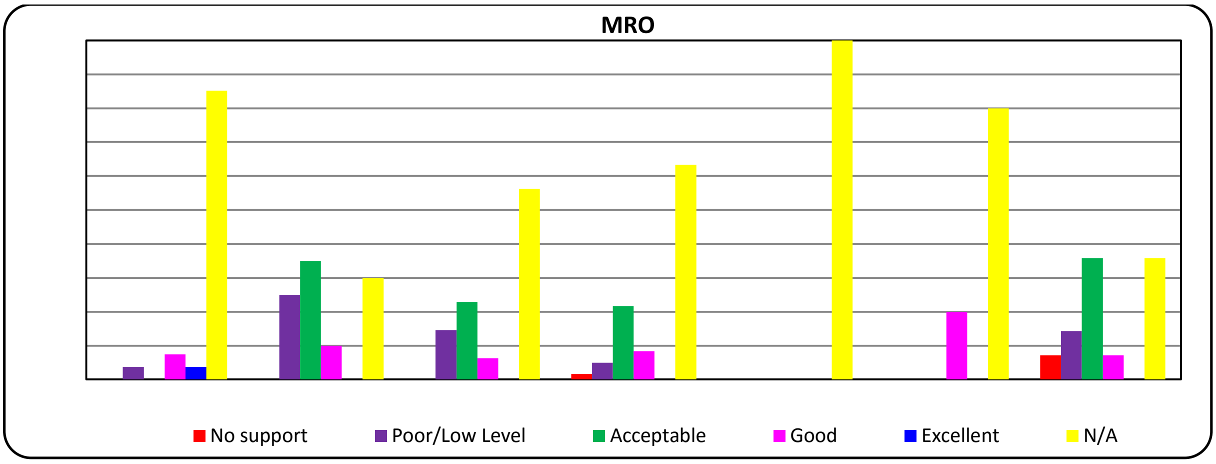

Paper (Leaflet and Label)
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A


Corrugate
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

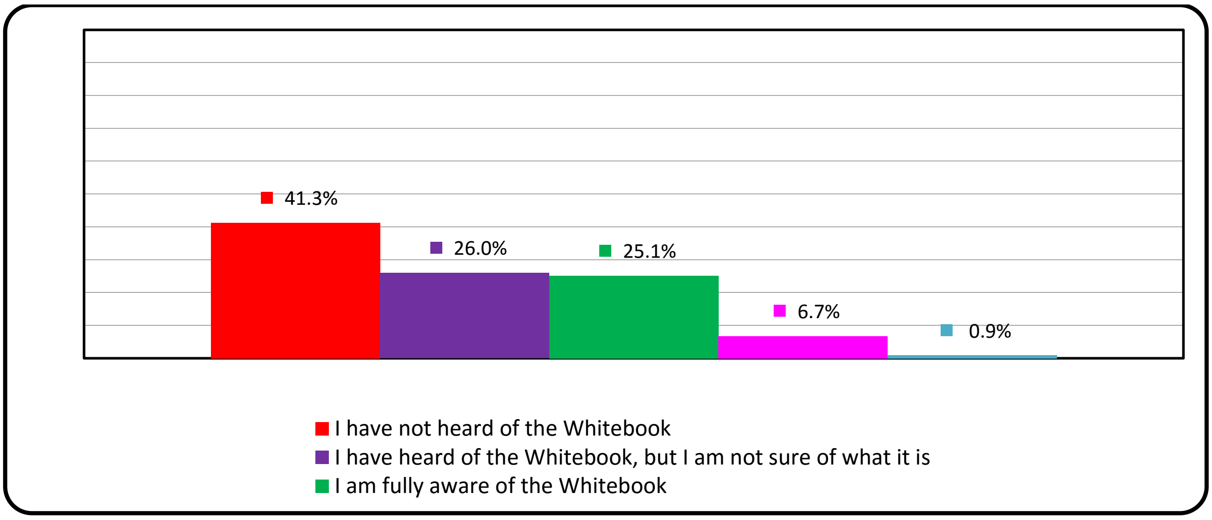

Bulk Raw Materials
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A

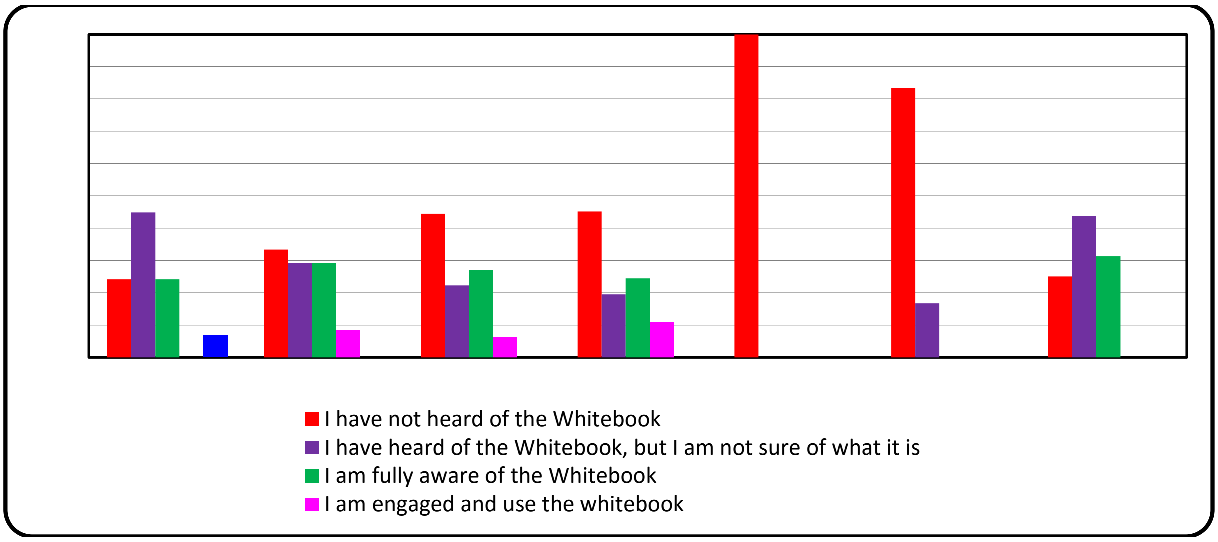

Transport & Logistics
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A


Non-Production/Indirects
No support
Poor/Low Level
Acceptable
Good
Excellent
N/A



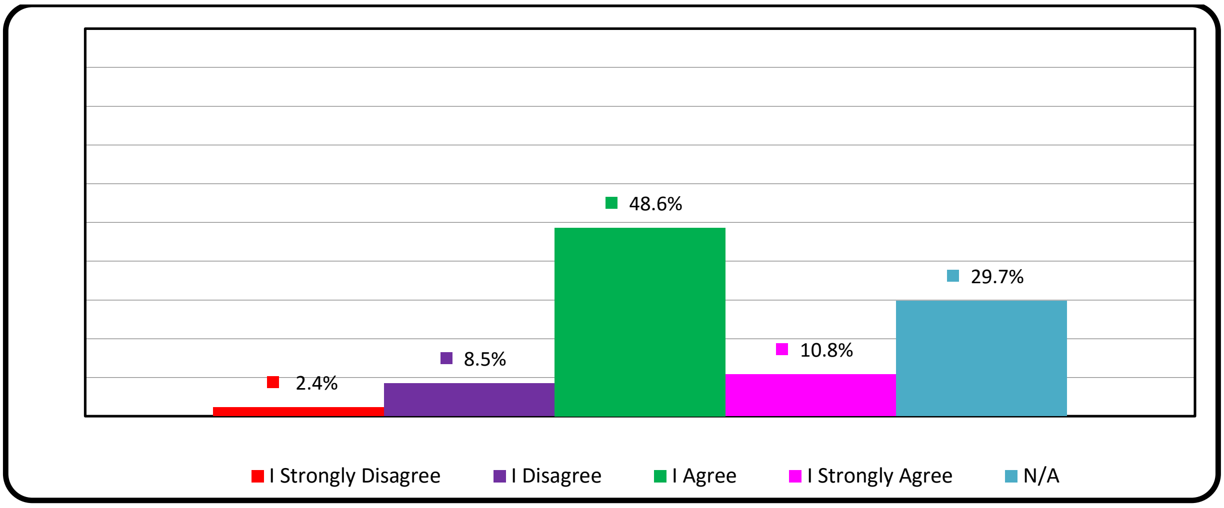
Q16. How aware are you of the "White-book" process for the tracking and verifying purchasing savings?

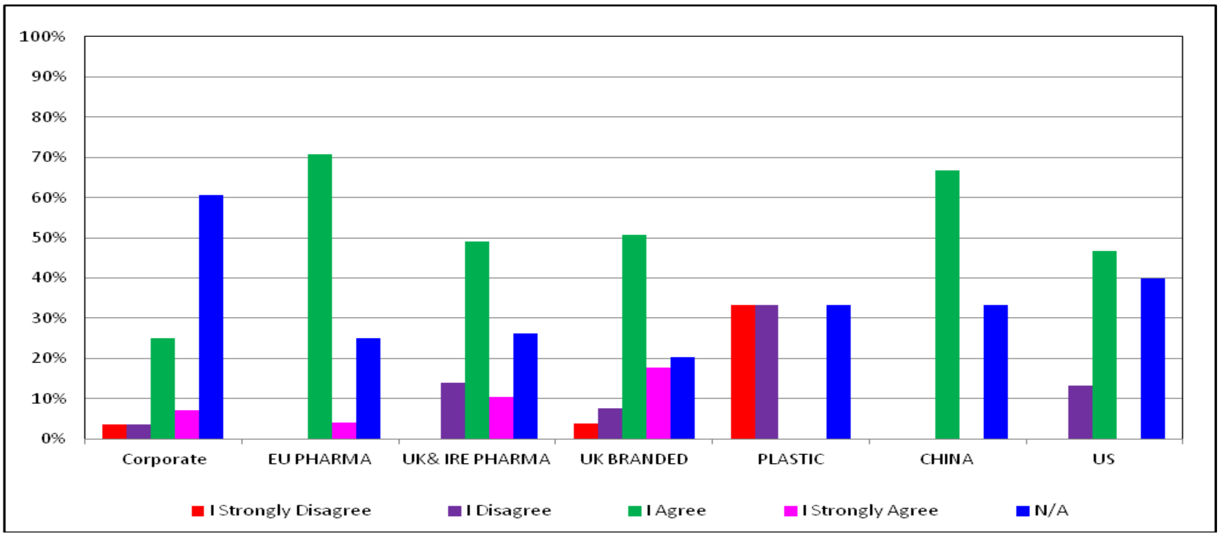




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I have not heard of the White-book	24.1%	33.3%	44.4%	45.1%	100%	83.3%	25%
I have heard of the White-book, but I am not sure of what it is	44.8%	29.2%	22.2%	19.5%	0%	16.7%	43.8%
I am fully aware of the White-book	24.1%	29.2%	27%	24.4%	0%	0%	31.3%
I am engaged and use the white-book	0%	8.3%	6.3%	11%	0%	0%	0%
N/A	6.9%	0%	0%	0%	0%	0%	0%

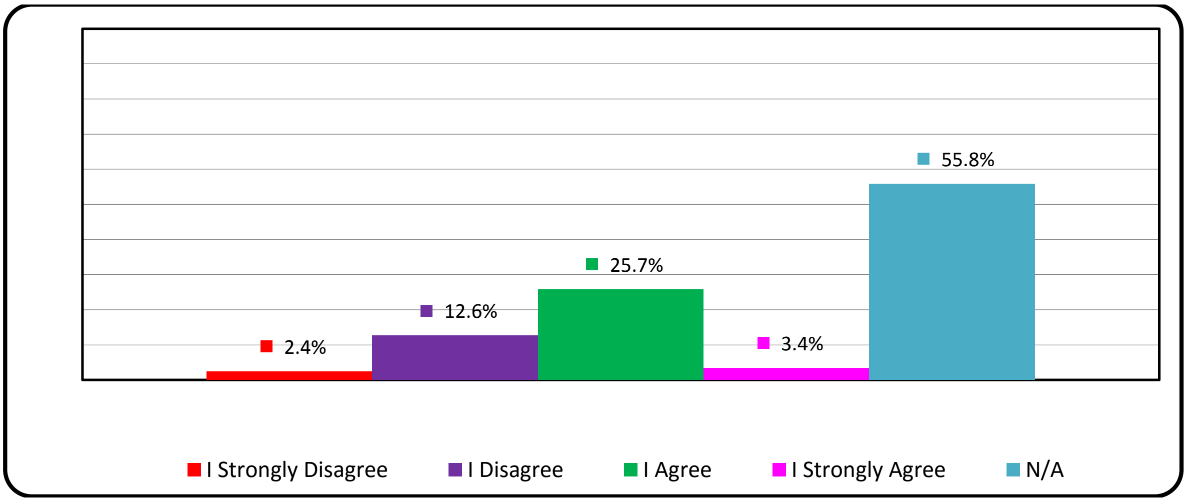
Q17. I believe that there has been benefit from the activity delivered into my business unit area.

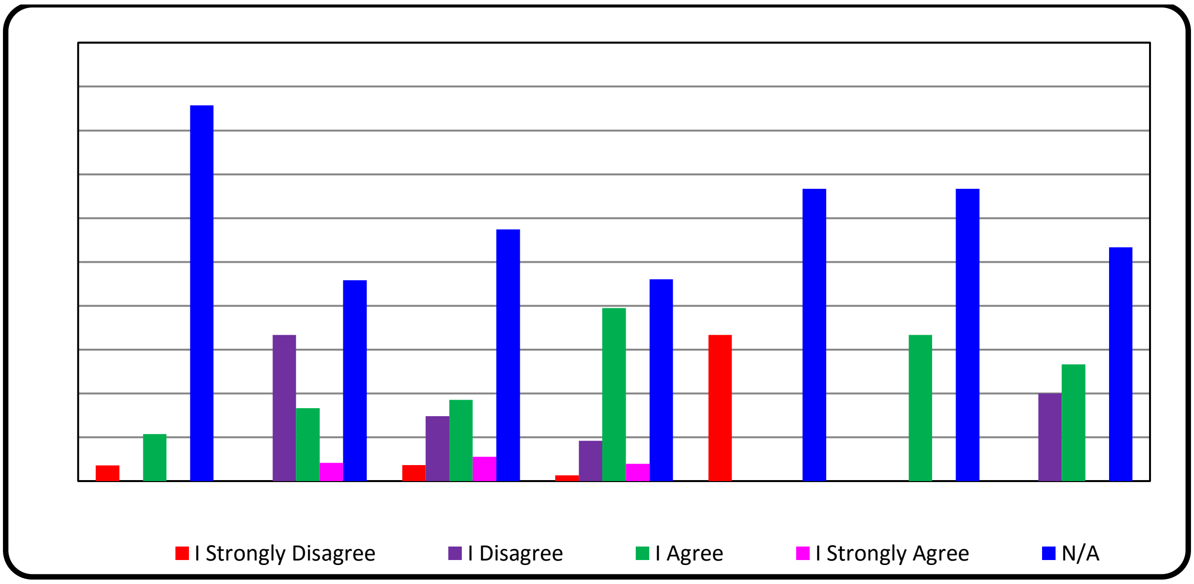




	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US
I Strongly Disagree	3.6%	0%	0%	3.8%	33.3%	0%	0%
I Disagree	3.6%	0%	14%	7.6%	33.3%	0%	13.3%
I Agree	25%	70.8%	49.1%	50.6%	0%	66.7%	46.7%
I Strongly Agree	7.1%	4.2%	10.5%	17.7%	0%	0%	0%
N/A	60.7%	25%	26.3%	20.3%	33.3%	33.3%	40%

Q18. I believe that the savings numbers declared from the programme (within the White-book) and affecting my business unit, are robust and accurate.

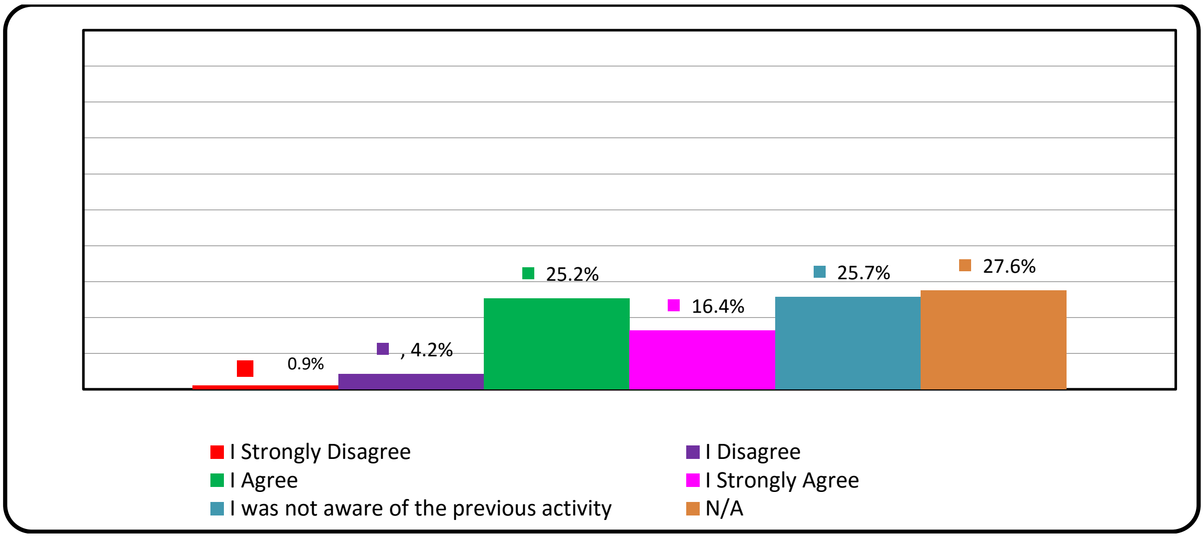


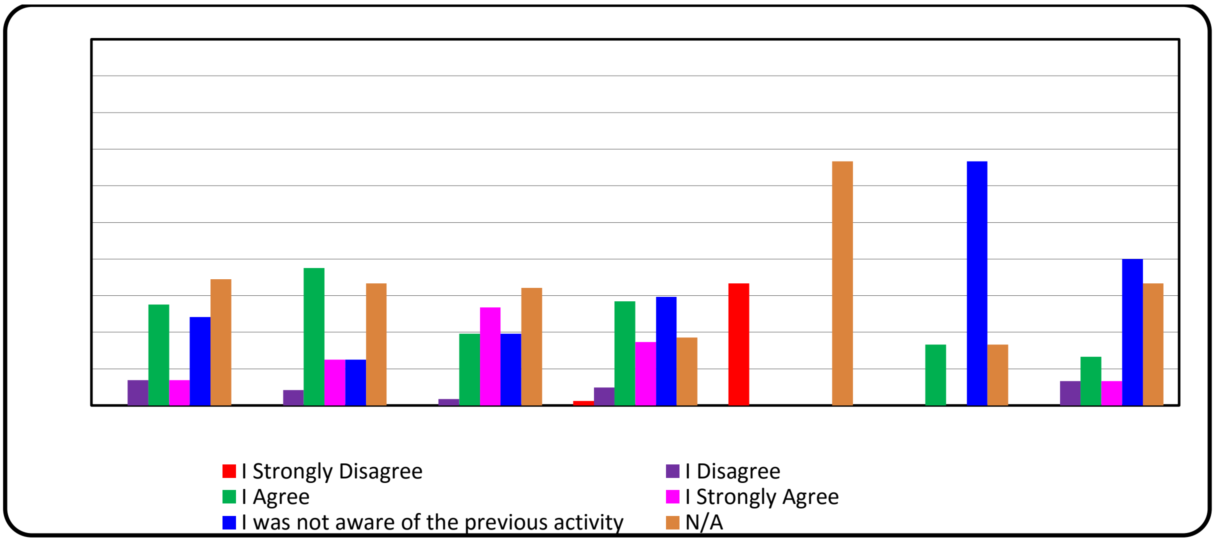


	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US

I Strongly Disagree	3.6%	0%	3.7%	1.3%	33.3%	0%	0%
I Disagree	0%	33.3%	14.8%	9.2%	0%	0%	20%
I Agree	10.7%	16.7%	18.5%	39.5%	0%	33.3%	26.7%
I Strongly Agree	0%	4.2%	5.6%	3.9%	0%	0%	0%
N/A	85.7%	45.8%	57.4%	46.1%	66.7%	66.7%	53.3%

Q19. The current procurement programme is more effective than the previous consultancy led activity.





	CORPORATE	EU PHARMA	UK & IRE PHARMA	UK BRANDED	PLASTIC	CHINA	US

I Strongly Disagree	0%	0%	0%	1.2%	33.3%	0%	0%
I Disagree	6.9%	4.2%	1.8%	4.9%	0%	0%	6.7%
I Agree	27.6%	37.5%	19.6%	28.4%	0%	16.7%	13.3%
I Strongly Agree	6.9%	12.5%	26.8%	17.3%	0%	0%	6.7%
I was not aware of the previous activity	24.1%	12.5%	19.6%	29.6%	0%	66.7%	40%
N/A	34.5%	33.3%	32.1%	18.5%	66.7%	16.7%	33.3%

PART 4 - COMMUNICATIONS

Q20. Going forward - what would be the best method of communicating the procurement activity to you.

	No Interest	Of Some Interest	Preferred Method
Weekly Report	54.0%	39.8%	6.2%
Monthly Detailed Report	23.2%	46.4%	30.4%
Monthly Summary Report	7.3%	26.3%	66.5%
"The Chain" Newsletter	15.6%	57.8%	26.6%
The Intranet	15.7%	48.3%	36.0%
Webex	46.6%	47.3%	6.2%
Face to Face meetings	24.9%	47.4%	27.7%

Appendix 15 - Research Plan

TASK NAME	Start Date	Finish Date
Official Launch of the research programme		
Project Start	03/01/2011	03/01/2011
Procurement Leaders Conference	24/05/2011	
Create Linked-in group and promote interest	03/01/2011	
Create project website		
create the project marketing literature		
Phase 1 - Defining Success		
Determine target Audience		
Design and Test Interview Process		
Identify and contact subjects		
Perform interviews		
Interview 1	29/04/2011	29/04/2011
Interview 2	27/05/2011	27/05/2011
Interview 3	27/05/2011	27/05/2011
Interview 4	03/05/2011	03/05/2011
Interview 5	24/05/2011	24/05/2011
Interview 6	03/06/2011	03/06/2011
Interview 7	03/06/2011	03/06/2011
Interview 8	05/08/2011	05/08/2011
Interview 9	08/08/2011	08/08/2011
Interview 10	08/08/2011	08/08/2011
Interview 11	05/10/2011	05/10/2011
Analyse Results		
Draw Conclusions and Input to model Development		
Phase 2 - Confirm and Develop the Model		
Design focus group sessions and test workshop approach		
Identify and contact subjects		
Arrange and perform sessions		
i-source focus group	28/10/2011	
Procurement Insight Focus group	04/11/2011	
Analyse results		
Draw conclusions and review model accordingly		
Phase 3 - Perform the As-Is Analysis		
Review Brain-net information		
Identify key stakeholders and people of influence		
Arrange and run internal workshops		
ESG Steering group meeting	08/12/2011	
Phase 4 - Intervention		
Determine areas for improvement based on the PEM		
Agree action plan with stakeholders		
Implement Action Plan		
Phase 5 - Analyse and Conclude		
Review existing information generated from the case		
Compelling Case		
People and Competency		
Strategy and Approach		
Comms, marketing and Data		
Governance		
Draw Conclusions		
Write-Up		
Thesis Write-up		
Ongoing communications - Supervisors		
Ongoing Communications - Chesapeake Stakeholders		

Appendix 16 - Risk Register

Risk Analysis	Category of Risks	RISK	1/3/5 Seriousness	1/3/5 Probability	RPN Score	RESULT	MITTIGATION ACTIVITY	1/3/5 Seriousness	1/3/5 Probability	Score
University	Ethical	Reputation is negatively affected through the research process	5	3	15	Poor reputation for Aston University, potential for impact over longer term engagement with companies	Monthly reviews with Aston University supervisor	5	1	5
University	Ethical	Contravention of Ethical Research guidelines - link to reputation effect as above	5	1	5		Monthly reviews with Aston University supervisor	5	1	5
Company	Practical	Lack of companies who wish to participate	5	3	15		-If companies do not wish to participate, there could be a focus on Chesapeake as the incumbent company -Additionally, more marketing of the benefits of involvement would reduce this risk	5	1	5
Company	Practical	Data not being made available e.g. performance	3	3	9		Involve additional individuals or companies	1	1	1
	Ethical	company unwilling to allow company name to be used in published papers	3	3	9		There is a facility for confidentiality, and this can be envoked at any time	1	1	1
Company	Practical	Performance data not captured	3	3	9		Involve additional individuals or companies	1	1	1
Company	Practical	No Development programme - unwilling to invest in personality profiling exercise	5	3	15		work with company to develop a development programme	1	1	1
Research Programme	Ethical	loss of research data	5	1	5		Dropbox - multi computer copies	5	1	5
Research Programme	Ethical	Access of data by unauthorised individuals	5	3	15		All data to be password protected	5	1	5
Individual Participants	Ethical	Contravention of Data Protection	5	5	25		follow all necessary procedures	5	1	5
Individual Participants	Ethical	Individuals are negatively affected by the development process	5	3	15		Full disclosure of the process to be made prior to any development activity	5	1	5
Individual Participants	Ethical	Personality and competency review feedback process poor	5	3	15	demotivated staff	researcher trained	5	1	5