ANTECEDENTS AND CONSEQUENCES OF

PERCEIVED EFFECTIVE MANAGERIAL COACHING:

An individual, team-level and cross-level examination

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Doctor of Philosophy

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THESIS SUMMARY

The major contribution of the study is the identification of a positive link between perceived effective managerial coaching (PEMC) and team task performance and also, the examination of PEMC adopting a multilevel research design and incorporating dual-source data. Specifically, drawing on social psychology, the thesis aims at developing and testing a comprehensive conceptual framework of the antecedents and consequences of PEMC for knowledge workers. The model takes into consideration intrapersonal, interpersonal and team-level characteristics, which relate to PEMC and, subsequently associate with important work outcomes. In this regard, the thesis identifies PEMC as a practice of dual nature in that it may be experienced not only as a one-on-one workplace developmental interaction, but also as a managerial practice that is experienced by each member of a team for co-ordination purposes. Adopting a cross-sectional survey research design, the hypotheses are tested in three organisations in Greece and the UK. In particular, hierarchical linear modelling of 191 employees nested in 60 teams yields that employees' learning goal orientation (LGO) and high-quality exchanges between an employee and a manager (LMX) are positively related to effective MC, while a manager's LGO moderates the relationship between employees' LGO and PEMC. In turn, PEMC, as a one-on-one practice, is related to cognitive outcomes, such as information sharing, while as a shared team practice is related also to behavioural outcomes, including individual and team performance. Overall, the study contributes to a growing body of coaching and management literature that acknowledges PEMC as a core managerial practice.

Keywords: coaching, workplace, line manager, knowledge workers, hierarchical linear modelling

I dedicate this thesis to my parents, Pericles and Joanna, for instilling in me from a very young age a love for learning, letters and philosophy.

Στους γονείς μου, Περικλή και Ιωάννα, οι οποίοι μου μετέδωσαν από πολύ μικρή ηλικία την αγάπη για γνώση, Γράμματα και φιλοσοφία.

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List of contents

List of Tables

List of Figures

List of appendices

1. **Introduction**

1.1 Chapter overview

The aim of the present chapter is to introduce the construct of managerial coaching and to demonstrate the underlying rationale for a comprehensive examination of its perceived effectiveness. In this respect, it is organised as follows. Firstly, the chapter identifies the problem and gaps in extant literature that call for a more holistic investigation of managerial coaching. Secondly, it discusses the aim of the thesis and subsequently the research questions and objectives. Thirdly, it elaborates on the theoretical and practical contribution of the study, while finally, it provides a brief overview of the following chapters.

1.2 Rationale, problem identification & literature gaps

Effective leadership behaviour has been increasingly linked with the practice of coaching, as a workplace intervention, which is delivered to team members by their team leader (Cannon & Edmondson, 2001; Fong & Snape, 2014; Gittell, 2001; Hackman & Wageman, 2005; Liu & Batt, 2010; Morgeson, 2005; Wageman, 2001). The growing significance of coaching is in line with prior literature that suggests a delegation of human resource responsibilities to the line manager (Dysvik & Kuvaas, 2012; Francis & Keegan, 2006; Hall & Torrington, 1998; McGovern, Gratton, Hope-Hailey, Stiles, & Truss, 1997; Purcell & Hutchinson, 2007) and the rise of workplace learning (Noe, Tews, & Dachner, 2010). In addition, it corresponds to a perceptual shift in strategic learning & development that once utilised coaching as a corrective and remedial intervention to presently employ it as a best practice for thriving performance (Feldman & Lankau, 2005).

Against this background, the thesis focuses on employees' perceptions of coaching that is delivered by the functional leader of the team, namely the line manager. Evidence suggests that this is the most widely used form of coaching in organisations (Segers & Inceoglu, 2012) and one of the most compelling leadership processes (Zaccaro, Rittman, & Marks, 2001). Furthermore, the interest on employees' perceptions is twofold: they play an important role in shaping employees' attitudes and behaviour in the workplace (Dysvik & Kuvaas, 2012; Purcell & Hutchinson, 2007); while they represent a measure to attest for actual (implemented) rather than intended managerial practices (Kuvaas & Dysvik, 2010; Arthur & Boyles, 2007).

Evered & Selman (1989:16) were the first to regard coaching "as the heart of management" and to initiate academic interest on the concept as an important leadership behaviour. Contingent on this premise, a number of studies have been undertaken that relate perceived coaching conducted by the line manager to important work outcomes, such as task performance (Gittell, 2001; Liu & Batt, 2009; Agarwal, Angst, & Magni, 2009; Stoker, 2008; Kim, Egan, Kim, & Kim, 2013; Kim, Egan, & Moon, 2014). Indeed, the theoretical connection of managerial coaching to task performance is substantiated on the historical backdrop and purpose of the practice as a developmental intervention for improving performance (Fournies, 1978). However, the majority of past research focused on the dyadic relationship between a manager and an employee without acknowledging the context within which the intervention takes place. Given that employees within a team receive coaching by the same manager and that they often work together towards achieving common objectives, paying limited theoretical and empirical attention to group level processes may hinder the comprehensive appreciation of coaching and result in biased conclusions.

The thesis bridges this gap by theoretically developing and empirically examining a multilevel framework that views coaching not only as a developmental intervention but also as a core management practice for team-coordination. Specifically, building on Evered and Selman (1989) and social psychology (Allport, 1954), the author defines coaching by the team leader, i.e. managerial coaching, as a workplace interaction of dual nature: the manager offers constructive and continuous feedback and assesses together with the employee the situation, while the employee sets specific goals and objectives with the purpose to develop or further improve competencies and performance and thus, achieve similar tasks in the future in the absence of the manager and while working alongside the rest of the team.

According to the above definition of managerial coaching, goal setting owned by the employee and useful feedback given by the manager in a continuous way represent fundamental processes of the practice. Indeed, while meta-analyses (Kluger & DeNisi, 1996; Smither, London & Reilly, 2005) demonstrated inconclusive results on the relationship of feedback alone to employees' performance, studies have shown that feedback strengthens the positive relationship between goal setting and employees' performance (for a review v. Locke, Shaw, Saari & Latham, 1981; Locke & Latham, 2002). According to Locke and Latham (2002; 2006; Latham & Locke, 2006), goals, which are specific, difficult to achieve and combined with summative feedback, are significantly related to employees' performance. The incremental value of the practice of managerial coaching lies on the fact that the manager does not set goals

for the employee; but in contrast, empowers the employee to set own goals by guiding the latter to make clear associations between previous performance, feedback received and future aspirations within the team environment.

Besides coaching, the manager-employee dyad has been repetitively the focal point for research related to employees' development and task performance. For instance, meta-analyses (Gerstner & Day, 1997; Dulebohn, Bommer, Liden, Brouer, Ferris, 2011) have shown that employees' perceived quality of their relationship with the team leader (LMX) is positively related to their performance, while Carmeli, Atwater & Levi's (2011) and Sias' (2005) studies demonstrated a positive link between employees' perceived LMX and information sharing. LMX is based on social exchange theory (e.g. Blau, 1964; Cropanzano & Mitchell, 2005; Gouldner, 1960) and in this respect, it has been associated with supervisory mentoring as complementary constructs related to employees' (protégés') salary and promotion but not to performance (Scandura & Schriesheim, 1994). Indeed, mentoring appears to be a more career-oriented developmental interaction (Thomas & Lankau, 2009) and extant literature has demonstrated its relation to job satisfaction, organisational commitment, career expectations, and progression (Scandura & Williams, 2004; Payne & Huffman, 2005; Wayne, Liden, Kraimer, & Graf, 1999). Be that as it may, little attention has been given to the relation between LMX and managerial practices that are more proximal to individual and team performance than mentoring, such as managerial coaching.

The limited theoretical understanding of managerial coaching within the spectrum of team leadership has resulted in disagreement with regard to its identification as a leadership process. Indeed, several scholars identified the practice as a core managerial behaviour (e.g. Ellinger, Baş, Ellinger, Wang, & Bachrach, 2011; Evered & Selman, 1989; Hamlin, 2004; Heslin, VandeWalle, & Latham, 2006), while others conceptualised managerial coaching as one of the many tools/practices available at the disposal of a manager (e.g. Ellinger & Bostrom, 2002; Hawkins & Smith, 2007; Slåtten, Svensson, & Sværi, 2011). Relatedly, no consensus exists regarding its relation to other developmental interventions and different types of coaching at the workplace. For example, the term coaching is often used interchangeably with the term mentoring in order to denote an intervention that involves interaction between two individuals with a developmental purpose (e.g. Becker & Murphy, 1992; Garvey, 2004; Hargreaves, 2010).

Notwithstanding these controversies and the lack of a comprehensive theoretical framework, managerial coaching has been fervently embraced by contemporary organisational practice and practitioners' literature (Ellinger, 2013; Heslin et al., 2006; Latham, 2007; Seligman, 2007). Although practice preceding research represents a common pattern for organisational phenomena (Zaccaro & Horn, 2003), further arbitrary use of managerial coaching may result in a partial view on its usefulness. This may not only hinder the demonstration of its added value to the organisation, but also increase the chances of being perceived as "an organisational fad that passes quickly" (Segers, Vloeberghs, Henderickx, & Inceoglu, 2011: 205).

Hence, the underlying rationale for the thesis is to join the conversation in extant litarature on the relationship between perceived managerial coaching and task performance by filling the void with regard to the little understanding that currently exists of the multilevel facet of the practice. In doing so, the author envisages to complement existing literature with a comprehensive theoretical and empirical framework that takes into consideration different levels of analysis and hence, to respond to calls for more integrated models in workplace learning (Illeris, 2003) and human resources in general (Ployhart & Moliterno, 2011). Indeed, in contrast to other types of workplace coaching, perceived managerial coaching involves not only one (e.g. executive coaching) or two (e.g. peer coaching) team members, but all the members of the team since the manager coaches individually each member of the team per se. Naturally, such an approach necessitates the development of a multilevel model that captures individual level, team-level and cross-level relationships. In this regard, social psychology (Allport, 1954) may serve as an operational framework for managerial coaching that takes into consideration not only individual (intrapersonal) and dyadic (interpersonal), but also contextual (group) processes.

Contributing to a more inclusive understanding of the mechanism that links managerial coaching with task performance, the thesis also focuses on information sharing, as an important employee outcome that has been found to relate to both workplace interventions (e.g. Bryant, 2005; Cabrera & Cabrera, 2005) and task performance (e.g. Mesmer-Margnus & DeChurch, 2009; Srivastava, Bartol & Locke, 2006). Indeed, information sharing represents the morphology of an employee's associations with other employees or divisions and describes the frequency, magnitude and ability to harness these associations (Leana & Pill, 2006; Nahapiet & Ghoshal, 1998). That being so and given the coordinative facet of managerial coaching, information sharing may appear as an important constituent in the model under examination.

The thesis focuses on teams of knowledge workers, as this type of employees works in settings that facilitate the activation of both the developmental and coordinative facets of the practice. Specifically, knowledge workers may be defined as the employees who, as part of their job requirements, involve in knowledge creation by utilising knowledge obtained through education or experience (Davenport, 2013). These employees may have less structured job descriptions, while their work is elaborate and results-oriented (Horwitz, Chan, & Quazi, 2003). In this regard, managerial coaching may appear as a managerial practice that is aligned with they way in which knowledge workers operate in the workplace in that it may not only enable them to work towards achieving their individual objectives, but also provide them with a blueprint for knowledge exchange and coordination (Collins & Smith, 2006). In contrast, in settings in which work is repetitive and independent for each of the team members, the coordinative facet of managerial coaching may be less relevant.

At this point it is worth mentioning that the thesis elaborates on perceived managerial coaching effectiveness rather than on its perceived conduct. The underlying rationale lies on the prior dichotomisation of coaching behaviour in extant literature, denoting that the quality of the practice rather than the quantity may be related to important employee outcomes. Specifically, in the course of a qualitative study, Wageman (2001) identified two dimensions (positive and negative) of perceived coaching behaviour, which later Morgeson (2005) redefined as supportive and active types of coaching respectively. Relatedly, Ellinger et al. (2011) found that moderate rather than higher levels of perceived coaching behaviour yielded higher improvement in employees' job performance. In this regard, it is envisaged that the investigation of the perceived effectiveness of managerial coaching may offer a more comprehensive understanding of the practice and hence, help in the interpretation of Ellinger et al.'s counter-intuitive findings.

The author knows of no previous studies that elaborate on the characteristics related to perceived managerial coaching effectiveness, while to the best of her knowledge only two research studies have been conducted on the antecedents of managerial coaching behaviour (Ellinger, 2003; Heslin et al., 2006). This gap is not unanticipated given the scarce past literature on the relationship between perceived managerial coaching effectiveness and employees' performance (Gittell, 2001; Agarwal et al. 2009). Nevertheless, a comprehensive understanding of the latter relationship necessitates the identification of characteristics that may serve as antecedents of managerial coaching effectiveness. In line with a socio-psychological

perspective, such an examination incorporates not only intrapersonal and interpersonal but also contextual elements.

Set against this background, the aim of the thesis is to theoretically develop and empirically examine a conceptual framework that takes into consideration the dual nature of managerial coaching both as a dyadic developmental practice and a team coordination mechanism. In doing so, the thesis aims to answer the following research questions:

1. What is effective managerial coaching?
2. What are the antecedents of perceived effective managerial coaching?
3. What are the consequences of perceived effective managerial coaching?

Further, the researcher devised five research objectives that emanate from the abovementioned controversies and research gaps. The successful achievement of these objectives will contribute to the fulfilment of the above research questions and therefore, the research aim. Specifically, the research objectives of the thesis are the following:

a. To theoretically substantiate and distinguish the construct of managerial coaching from other types of workplace coaching and developmental interactions
b. To develop a comprehensive operational framework of effective managerial coaching for knowledge workers
c. To examine, building on social psychology, the importance of intrapersonal, interpersonal, and team characteristics in the effectiveness of managerial coaching
d. To examine, through theoretical and empirical study and at different levels of analysis, the relation of effective managerial coaching to important work outcomes

The following section elaborates on the contribution of the thesis, given the completion of the above objectives and the subsequent answer of the research questions.

1.3 Research contribution

The main contribution of the thesis is the examination of the relationship between managerial coaching and team task performance and also, its multilevel

research design. Specifically, the study develops and tests a multilevel framework that highlights both the interpersonal and team-level facets of managerial coaching. Theoretically, the study draws on Mumford, Zaccaro, Harding, Jacobs, & Fleishman (2000), who indicated that in complex environments leaders are responsible for employee's goal setting and guidance, and proposes that in knowledge-intensive environments, leaders help employees to attain their goals with the help of effective coaching. With regard to the team-level facet, the research draws on Klein & Kozlowski (2000), who argue that through team shared practices team members transform their skills, knowledge, attitudes and other attributes (SKAOs) into valuable resources that reside at the level of the team and contribute to individual and team outcomes. Methodologically, the study is but a few (e.g. Agarwal, et al. 2009) that adopts a multilevel design that not only accounts for variance due to team membership, but also examines individual-level, team-level and cross-level relationships. In this respect, the study not only identifies the dual facet of managerial coaching, but also investigates managerial coaching in a robust methodological way.

The study, also, demonstrates that managerial coaching is positively related to team task performance and hence, contributes to already-established conversations on the relationship of coaching to individual performance by initiating dialogue on the association of the practice with team performance. In this regard, the study theoretically and empirically underpins previous arguments on the significance of coaching for managerial effectiveness (Bartlett & Ghoshal, 1995; Deeter-Schmelz, Kennedy, & Goebel, 2002; Ellinger, Ellinger, & Keller, 2003; Ellinger, Watkins, & Barnas, 1999; Ellinger, 2013; Ellinger et al., 2011; Evered & Selman, 1989; Poksinska, Swartling, & Drotz, 2013; Waldroop & Butler, 1996), while it, also, highlights the added value of managerial coaching to an organisation. In doing so, the study provides justification of any organisational investment of business resources for the development and promotion of managerial coaching in the workplace.

Further, critically reviewing past literature on coaching, the study distinguishes managerial coaching against other forms of developmental interactions and different types of workplace coaching. It also identifies that managerial coaching incorporates a dual nature, one that corresponds to its developmental aspect as a one-on-one intervention and a second one that relates to its managerial facet as a shared practice among the members of the same team. Indeed, the thesis draws on social learning theory (Bandura, 1977, 1988; Ozer & Bandura, 1990; Wood & Bandura, 1989) and proposes that managerial coaching serves as a regulation mechanism for employees' learning, until they have achieved adequate levels of competence to perform a task

without the presence of a manager. It also builds on Evered & Selman (1989) and Drucker (1988) to suggest that managerial coaching forms a core managerial practice that enables managers to delegate tasks to team members and thus, effectively co-ordinate team interaction and processes. In this respect, the thesis highlights that unless both facets are taken into consideration, any investigation may only partially capture the practice and its contribution to work outcomes. Moreover, this work adopts an integrative perspective in the examination of managerial coaching that takes into consideration all the different ways in which the manager may coach an employee within the workplace, i.e. formally, informally or incidentally. It, thus, offers a more holistic evaluation of the contribution of the practice to important work outcomes and at the same time it adds to a growing literature on informal learning (Bednall, Sanders, & Runhaar, 2014). Overall, this work not only contributes to coaching literature by exhibiting the distinctiveness of managerial coaching as a workplace practice, but also, extends management and knowledge worker literature by identifying a novel form of organising and delegating knowledge-intensive tasks.

With regard to the antecedents of effective managerial coaching, the study adopts the view that individual differences play an important role in the contemporary workplace (Day, 2000). In line with this, it builds on Hooijberg & Lane's (2009) argument that employees' responsibility and the chemistry between a coach and a coachee are determinant factors for effective coaching. Specifically, the study proposes that employees' learning disposition and the quality of exchange between a manager and an employee relate to the effectiveness of managerial coaching. Further, it builds on the aforementioned study of Heslin et al. (2006) and also incorporates managers' learning disposition in the conceptual framework. In this way, the study contributes to the scarce literature on the antecedents of managerial coaching, while it calls organisations to pay attention not only to the manager or the process but also to the employee and the context within which, coaching occurs.

Having discussed the research contribution, the following part discusses the way in which the thesis is organised into chapters.

1.4 Thesis structure

The thesis is structured in six chapters. The present chapter introduces the aim of the research and provides the rationale and the background reasoning for engaging with the antecedents and consequences of effective managerial coaching.

The purpose of the second chapter is to theoretically substantiate the construct of managerial coaching and distinguish it from other workplace interventions in order to acquire a more comprehensive understanding of its nature. In doing so, the chapter draws on both workplace learning and management literature and subsequently, identifies managerial coaching not only as a discrete workplace practice that is offered on a one-on-one basis in order to improve employee's SKAOs, but also as a core management practice that is used in order to effectively delegate tasks to each member of a team. Further, the chapter elaborates on the partial, yet significant, examination of the effectiveness of coaching in extant literature and draws on social psychology to develop an operational framework for managerial coaching.

Having clarified the concept of managerial coaching, the aim of the third chapter is to develop a set of hypotheses and a conceptual framework that examine both the antecedents and consequences of perceived effective managerial coaching for knowledge workers. In this respect, the chapter identifies the employees' and manager's learning disposition, and the chemistry between them as important antecedents of perceived effective managerial coaching. Further, the chapter demonstrates that due to its dual nature, managerial coaching is related to employee outcomes not only at the individual level but also at different levels of analysis. In addition, the chapter discusses the mediating role of both perceived effective managerial coaching and information sharing in the relationship between employees' SKAOs and outcomes. In this way, the chapter highlights the association of the practice with different behavioural and cognitive characteristics, while it also signifies the importance of information sharing in knowledge-intensive organisational settings.

The aim of the fourth chapter is to elaborate on the rationale and the necessity of selecting specific research methods to examine the conceptual framework and proposed hypotheses within the thesis. In this respect, first the chapter discusses the adopted research paradigm and thus, the adopted ontology, epistemology and axiology of the study. Second, the chapter explicates the adopted research methodology, with a complete account of the adopted research design, context and procedures. Third, it expatiates on the sample size of the study, the validated measures used in the questionnaires, while it also offers justification for the selection of specific data analytic techniques, including exploratory (EFA) and confirmatory factor analysis (CFA), multigroup CFA, descriptive statistics and correlations, reliability estimates and hierarchical linear modelling. Finally, it expands on the way in which the adopted research methods meet the research quality criteria and offers a detailed account of the ethics of the research.

The fifth chapter reports the findings of the data analyses. In particular, firstly it discusses the reliability and validity of the measures and reports the results from the examination of the EFA, dimensionality of the employed scales, CFA and multigroup CFA. Thereupon, the chapter displays the results from the descriptive statistics and correlations, and subsequently the results from hypotheses testing. In this respect, the chapter initially presents the findings from the examination of the antecedents of effective managerial coaching and thereafter, it reports the results with regard to the consequences of the practice.

The concluding chapter aims to discuss the results of the data analyses in the light of the aim of the study, and also the research questions and objectives that were framed in the present chapter. It, thus, provides an overview of the above (aim, questions and objectives) enhanced with the insight developed through the literature review (chapter two) and development of hypotheses (chapter three). Then, the chapter expands on the findings of the analyses, while it offers theoretical justification for the hypotheses that were not supported by the results. Next, it elaborates on the theoretical contribution of the thesis and the practical implications for HR practitioners and organisations. Finally, it discusses potential limitations of the study that may inform future research studies on the practice of managerial coaching.

1.5 Chapter summary

The present chapter introduced the concept of managerial coaching and demonstrated its rising importance in both practice and literature. It defined managerial coaching as a workplace interaction between the line manager and each member of a team per se with the purpose to enable each team member to achieve individual and team-related performance objectives. Goal setting and feedback are core processes of managerial coaching; yet, the incremental value of the practice lies in that the employee is an equal member in the coaching process, who is responsible to set own goals and objectives. While the link between managerial coaching and employee performance is well established in extant literature, team-level processes have received limited attention. Further, the limited examination of the contextual characteristics within which managerial coaching takes place has resulted in a convoluted literature, in which there is little agreement over the term coaching and its relation to leadership processes or other workplace interventions. In this respect, the thesis bridges these gaps by theoretically developing and empirically examining a multilevel framework for perceived effective managerial coaching. Indeed, adopting a social psychology perspective, the chapter identified the need for a more inclusive

investigation that considers not only intrapersonal and interpersonal but also team characteristics both in terms of the antecedents and consequences of managerial coaching.

It is worth acknowledging that besides managerial coaching, the manager-employee dyad has been the focal point of different streams of research, such as the quality of LMX and mentoring. Although mentoring is more career-oriented, extant literature demonstrates a positive link between the quality of LMX and task performance. In this regard, the present study adds to this area of research by examining the mediating role of managerial coaching.

After the aim of the thesis was introduced coupled with the research questions and objectives, the chapter elaborated on the research contribution. In particular, the major contribution of the thesis is the examination of the relationship between managerial coaching and team task performance, and also, the development of a multilevel framework of perceived effective managerial coaching. In addition, the study pinpoints the dual nature of the practice and thus, identifies it as a distinct workplace intervention. Moreover, the examination of the relation of intrapersonal, interpersonal and team characteristics to the effectiveness of the practice contributes to scholarly literature on the antecedents of effective managerial coaching, while the investigation of the individual level, team level and cross-level relationships between managerial coaching and employees' behaviour and cognition extends both the coaching and management literature and at the same time enhances organisational practice. Furthermore, the examination not only of the formal, but also of any form of managerial coaching enables a more thorough understanding of the practice and contributes to its holistic examination.

Finally, the present chapter set out the way in which the thesis is structured. Specifically, the second chapter reviews the literature, while the third chapter develops the hypotheses and the conceptual framework. Chapter four explicates the research methods adopted for the study and thereupon, chapter five presents the results of the data analysis. Finally, chapter 6 discusses the findings of the study and also, its contribution, limitations and avenues for future research.

2. Coaching at the workplace

2.1 Chapter overview

The aim of the present chapter is to contribute towards the objectives of the thesis in developing a working definition for managerial coaching and in constructing a model that explores the antecedents and outcomes of this important practice. The intention is to combine two disciplinary paradigms, that of workplace learning together with that of managerial instruction, with specific reference to employees in knowledge-intensive contexts. In this regard, the chapter is structured as follows. Firstly, it establishes coaching as a workplace practice. Specifically, it examines the origins of coaching; it compares it with other developmental interactions and examines the various coaching types in the workplace. Secondly, the chapter introduces coaching as a management practice. In this respect, it elaborates on the controversy that exists in past literature and examines the contemporary management and leadership of employees in knowledge-intensive contexts. This section goes on to expand on the indicative nature of the practice of receiving coaching from the team leader and expatiates on the distinct process of managerial coaching. Thirdly, it builds on the above and develops a working definition for managerial coaching, while it also draws on social psychology to develop an integrated operational model for managerial coaching.

2.2 Identifying coaching as a workplace practice

Peter Drucker (1988) was one of the first to predict the prevalence of knowledge workers and information sharing. Indeed, over a quarter of a century ago, Drucker urged organisations to shift from "the command-and-control model" (p.3) to alternative managerial processes, which would be based on information sharing and would better suit the development, motivation and ultimately, "organization of knowledge specialists" (p.11). At present, within the 'information age', knowledge workers have pervaded the labour markets (Groysberg, Lee, & Nanda, 2008; Pyöriä, 2005) and thus, the need for suitable managerial practices for their development, motivation and organisation is even more requisite.

Against this background, the workplace has been increasingly recognised as an important locus for the development of knowledge workers (Clarke, 2005; Jarvis, 2006; Mankin, 2009). In workplace interventions, employees are actively involved in

the process, directly practising their newly acquired knowledge, skills, and competencies on the job; while environmental and psychological factors, which may hinder the transfer of knowledge in traditional classroom-based interventions, are not apparent (Noe et al., 2010). Thus, not only is knowledge transmission more effective, but also knowledge, skills, and competencies are sustained for a longer period of time (Armstrong, 2009). Furthermore, this type of learning has been related to positive work outcomes such as employees' job satisfaction (e.g. Rowden, 2002; Rowden & Jr. Clyde, 2005) and commitment (e.g. Bartlett, 2001; Wang, Gilland, & Tomlin, 2010).

In line with the above developments, research in the area of workplace learning has been growing. Indeed, an increasing number of studies have examined workplace developmental practices, such as mentoring (e.g. Harvey, McIntyre, Thompson Heames, & Moeller, 2009; Lankau & Scandura, 2002; Lester, Hannah, Harms, Vogelgesang, & Avolio, 2011; Marcinkus Murphy, 2012; Ramaswami & Dreher, 2010; Thurston, D'Abate, & Eddy, 2012), apprenticeships (e.g. Cattani, Dunbar, & Shapira, 2013; Gospel & Fuller, 1998; Grugulis & Stoyanova, 2012; Kempster & Iszatt-White, 2013; Lewis, Ryan, & Gospel, 2008; Warner, 1986), and executive coaching (e.g. Bogner, 2002; Bono, Purvanova, Towler, & Peterson, 2009; Gray & Goregaokar, 2010; Ludeman & Erlandson, 2004; Smither, London, Flautt, Vargas, & Kucine, 2003). Coaching by the functional team leader, a workplace intervention par excellence, is the most widely used form of coaching in organisations (Segers & Inceoglu, 2012). It is also one of the most compelling leadership processes (Zaccaro et al., 2001). Yet, this type of coaching is highly under-researched (Ellinger, 2013; Heslin et al., 2006; Latham, 2007; Seligman, 2007). Hence, the aim of this section is to distinguish coaching by the line manager as a discrete workplace developmental practice and to contextualise the concept in order to provide the foundations for its scientific examination. In what follows, the chapter elaborates on the historic backdrop and the various definitions of the practice in general. Thereafter, it builds on extant literature and highlights the distinctiveness of coaching by the line manager from other workplace developmental interactions. Finally, it expands on the different types of coaching at the workplace, within which it identifies the practice of coaching by the team leader.

2.2.1 Historic backdrop of coaching

The origins of 'coaching' can be traced back to the 16th century, when the word 'coach' was utilised to describe the closed carriage drawn by horses (Oxford Dictionaries, 2010). The word stems from the French 'coche', which originates from

the Hungarian 'kocsi' and means 'wagon' (ibid.). Thus, the original meaning of the verb was to "convey a valued person from where one was to where one wants to be" (Whitherspoon & White, 1996: 124). Later on, in the 1840s, the word 'coach' was used, casually, at Oxford University to describe a private tutor whose role was to prepare a student for an examination (Evered & Selman, 1989). In the 1880s, the term started being used with its current meaning in sports at boat races (ibid.). However, it was not until the 1950s (Mace & Mahler, 1958; Mace, 1950) that the word 'coaching' was introduced in management literature, and only later, in the 1970s, that it started being used more frequently. During that decade, Tim Gallwey published *The Inner Game of Tennis* (1974), in which he praised coaching as the means through which a player may achieve high-end results. Although subtle, the association between coaching and managerial achievement could be easily made and thus, a few years later Fournies (1978) published the influential *Coaching for Improved Work Performance.* Thereupon, numerous practitioner and academic articles and books have been written regarding the concept of coaching as a managerial process.

Nevertheless, little agreement exists with regard to the concept of coaching, its aspects and different facets. This may be due to practice preceding research – a typical phenomenon for organisational concepts (Zaccaro & Horn, 2003). According to D'Abate, Eddy, & Tannenbaum (2003), two points of discrepancy exist: firstly, within the construct, with regard to the core meaning of the concept; and secondly, upon the similarities and differences of coaching with other developmental practices. Be that as it may, utilising the term 'coaching' inconsistently hinders the scientific understanding of the concept and intensifies the danger of its characterisation as an organisational fad (Segers et al., 2011). Hence, the following two sections elaborate on the clarification of the aforementioned discrepancies in order to highlight the distinctive characteristics of the practice and therefore, facilitate its scientific examination.

2.2.2 Defining coaching

Coaching, as a practice that involves conversations between two or more people for developmental purposes, belongs to the group of interventions described as 'developmental interactions' (De Haan & Burger, 2005). D'Abate et al. (2003), in their systematic literature review of developmental interactions, found that no term was shared in all the 21 definitions of coaching, which they had researched. Nevertheless, six qualities appeared more frequently than others, namely, specific purpose; short-term timeframe; teaching-focused learning behaviours; goal setting;

practical application, and provision of feedback. Indeed, coaching has been linked to the provision of feedback, reinforcement, motivation and help (Noe, 2002) in order to develop and improve a coachee's skills, competencies and performance. The purpose is then to enable the coachee through conscious self-reflection (Bond & Seneque, 2012) to set and achieve similar goals in the future without the presence of the coach (Passmore, 2003).

Undoubtedly, the lack of a shared common characteristic is indicative of the aforementioned confusion that exists regarding the core meaning of the concept. Nonetheless, it is possible that the existing discrepancy partially originates in the viewpoint of the beholder. In particular, coaching as a developmental interaction necessitates the involvement of a minimum of two individuals: the coach and the coachee. Depending on the focal point of interest - the coach or the coachee - the definition of coaching may vary. As a case in point, Peterson & Hicks (1996: 14) defined coaching as a "process of equipping people with the tools, knowledge, and opportunities they need to develop themselves and become more effective". This definition highlights the deliberate involvement of the coachee in the coaching process, although it indirectly implies the mediation of a second individual, who supplies the tools, knowledge and opportunities. On the other hand, Segers et al. (2011: 204) stated that coaching is:

An intensive and systematic facilitation of individuals or groups by using a wide variety of behavioural techniques and methods to help them attain self-congruent goals or conscious self-change and self-development in order to improve their professional performance, personal well-being and, consequently, to improve the effectiveness of their organisation.

Segers et al.'s (2011) definition emphasises the active and systematic involvement of the coach in the coaching process. It refers to specific targeted enhancements, i.e. goals, self-change and self-development, and it constrains the course of action within the boundaries of an organisation. While both Peterson & Hicks' (1995) and Segers et al.'s (2011) definitions indicate that coaching is a practice, which is employed to improve employees' effectiveness; depending on the viewpoint, they focus on different aspects of the developmental interaction. Specifically, Peterson & Hicks (1995) adopt the perspective of the coachee, while Segers et al. (2011) embrace the viewpoint of the coach. Thus, the adoption of a different point of view may, indeed, explain the confusion in defining the core meaning of the concept. Figure 2.1 summarises the

abovementioned perspectives into actions undertaken by the two individuals involved. Against this background, coaching at the workplace may be defined as a one-on-one or one-on-many intervention between a peer or manager (coach) and an employee (coachee), during which, the coach aids the coachee to set and achieve a goal that ultimately benefits the organisation.

The next part elaborates on the second type of discrepancy that exists with regard to coaching, i.e. its relation to other interactive developmental practices, such as mentoring and counselling.

Figure 2.1 Actions of coach vs. actions of coachee
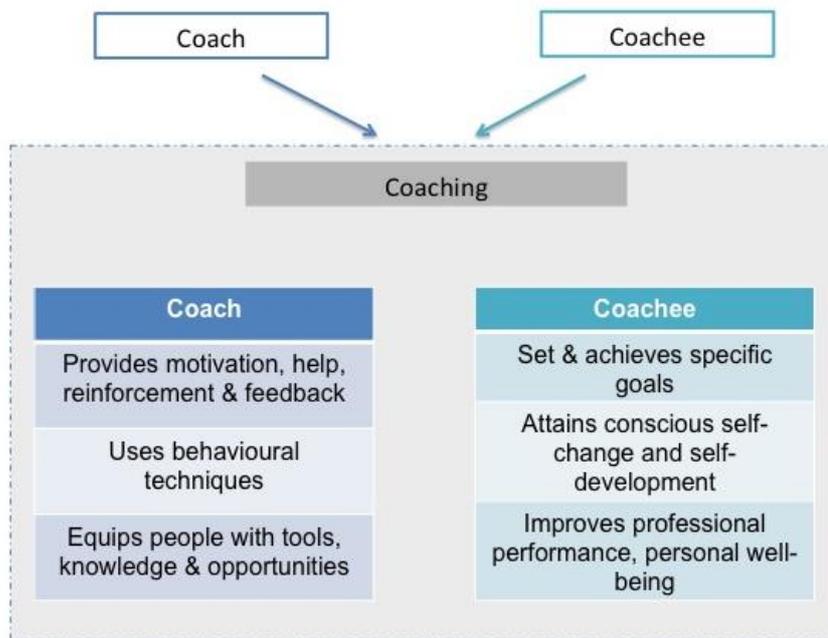
2.2.3 Coaching as a distinct developmental interaction at the workplace

The terms of 'coaching', 'mentoring' and 'counselling' are often used interchangeably in practice and in literature (D'Abate et al., 2003; Gallacher, 1997; Stone, 2007). Indeed, the frequent and simultaneous exercise of all three practices in a single session may lead to their consideration as a bundle rather than as distinctive developmental practices. Undoubtedly, coaching, mentoring and counselling share a common general purpose, that is, to help the individual achieve a particular goal. Nevertheless, they refer to a different type of relationship, timeframe and goal and therefore, they involve dissimilar psychosocial mechanisms in order to achieve heterogeneous outcomes. Under this line of reasoning, the interchangeable use of

best practice from one developmental interaction to the other may render ineffective results and thus, bias the potential of these practices. This part elaborates on the similarities and differences of coaching between the practices of mentoring and counselling in order to offer a more holistic understanding of the phenomenon by outlining its boundaries within the constellation of workplace developmental interactions.

2.2.3.1 Coaching vs. mentoring

In contrast to the relatively young history of the concept of coaching, the first reference of the word mentor dates back to the 8th century B.C. and may be found in Homer's epic Odyssey, as the name of the elder tutor of Odysseus' son. At present, the meaning of the concept has not changed radically, indicating a developmental interaction "between a younger adult and an older, more experienced adult [who] helps the younger individual learn to navigate the adult world and the world of work" (Kram, 1985: 2). Respectively, within an organisational context, a mentor is usually a senior manager or an executive, who gives career guidance and advice to a less experienced employee (Hawkins & Smith, 2007). Indeed, D' Abate et al. (2003) researched 70 definitions of the traditional or classic mentoring and found that, 51-75% of them posited that mentoring is a dyadic relationship, with a downward direction and a long-term time frame, where the developer (mentor) has more experience than the learner. In addition, a satisfactory amount of definitions indicated that mentoring is an internal process, with general developmental objectives.

Taking the above into consideration, it could be seconded that the main differences between coaching and mentoring lie in their timeframe and goal specificity. In particular, coaching focuses on short-term specific goals, while mentoring addresses long-term aims that are general and broader. Thus, although both practices may share similar qualities that are related to their interactive nature, the differences in timeframe and specificity instigate dissimilar psychosocial mechanisms. For instance, the short-term, specific goals, which are set during coaching, necessitate a more intensive type of involvement from both the coach and the coachee in comparison to mentoring, during which the goals are general and long-term. In this regard, the scientific examination of the two practices entails a different combination of psychosocial variables, which contribute to the effectiveness of each practice per se. Thus, unless coaching and mentoring are treated distinctively, the full potential of each developmental practice may not be attained.

TABLE 2.1

Differences between coaching, mentoring & counselling

Developmental Interaction:	Coaching	Mentoring	Counselling
Participant experience/ knowledge:	Varies	Mentor has more than learner	Varies
Interaction characteristics:	1to1 or 1toMany	Dyadic	Dyadic
Organisational direction:	Any	Downward	Any
Reporting relationship	Same hierarchy	Any	Any
Location	Internal	Internal	Internal
Object of Development	Specific	General	Personal
Time frame	Short-term	Long-term	Medium-term

2.2.3.2 Coaching vs. counselling

With regard to the practice of counselling, it may be defined as a set of techniques, skills and attitudes, which are employed to aid people to handle their own issues or setbacks with their own resources (Reddy, 1998). The determinant characteristic of this type of developmental interaction is that the counsellor may help the client, but the responsibility of the actions lies solely within the latter (Witherspoon & White, 1996). Thus, the counsellor focuses on advising the client and not on triggering self-reflection, which is a principal characteristic of the coaching process, during which the coachee learns through conscious reflection how to reach conclusions by him or herself (Bond & Seneque, 2012). In addition, counselling is more focused on personal problems, which may influence job performance, in contrast to coaching, which deals mostly with specific performance challenges (Hawkins & Smith, 2007). Further, the two practices have different focus points (CIPD, 2004). In particular, counselling sessions are broader, while the individual and the counsellor are the solely responsible to set the agenda, i.e. no other stakeholders are involved. In contrast, coaching sessions have a much narrower focus; the coachee sets the agenda together with the organisation (not the coach), while other stakeholders, such as the learning and development practitioner, may also be involved in the process.

A summary of the main similarities and differences between coaching, mentoring and counselling is depicted in Table 2.1. Having outlined the boundaries of the practice of coaching within the spectrum of workplace developmental interactions, the final part of this section highlights the plethora of workplace coaching

interventions, each of which interacts with a distinctive set of psychosocial processes. Further, the section introduces the concept of managerial coaching, which is identified as one of these workplace interventions. In doing so, the following part represents the starting point of the scientific examination of the concept in the thesis and hence, it is highly significant for the achievement of the aims of the thesis.

2.2.4 Types and scope of coaching

Both practitioners' and academics' interest is growing with regard to coaching, which has evolved into a highly profitable industry (Segers et al., 2011). In this regard, a plethora of different coaching interventions has been proposed and practised in the organisations, while academia exerts efforts categorising the various types into meaningful and distinctive groups. In line with Segers et al.'s (2011) structuring of the coaching industry, this part elaborates on coaching classifications in terms of the status of the coach or coachee, the scope of the intervention and the school of coaching.

With regard to the status of the coach or coachee, Fillery-Travis & Lane (2006) categorised coaching into executive, managerial and internal coaching. The former is delivered mainly by external coaches and is targeted mostly, but not always, to senior level employees. The second type refers to coaching delivered by the line manager, while the latter is pertinent to coaching offered by another employee within the organisation but not the line manager. Similarly, Segers et al. (2011) identified four types of coaching: external, coaching delivered by the line manager, internal and self-coaching. The first three types are analogous to the respective coaching types offered by Fillery-Travis & Lane (2006), yet, self-coaching refers to coaching performed by the individual for the individual. Critically reflecting on the above categorisations, one may notice that the designation for internal coaching is to a certain extent arbitrary. In particular, the adjective 'internal' signifies "of or situated on the inside" (Oxford Dictionaries, 2013) and thus, managerial coaching may also be regarded as internal coaching. Hence, the denomination of the type of coaching may also play an important role in the abovementioned discrepancy that exists with regard to the concept of coaching.

Regarding the scope of coaching, Segers et al. (2011) identified three categories: skills coaching, performance coaching, and development or life coaching. The aim of skills coaching is the development of mastery and capability in order to increase the effectiveness of an employee on a current or future role. On the other

hand, performance coaching expands over a longer period of time and focuses on a wider performance area than skills coaching. In contrast, development or life coaching deals with personal matters or significant career choices. Likewise, as per the scope of coaching, Grant & Zackon (2004), identified the following types: corporate/executive coaching, personal/life coaching, small business coaching, non-profit organisational coaching and internal coaching. While most of the above terms are self-explanatory, corporate/executive and internal coaching acquire a different meaning from those offered by Fillery-Travis & Lane (2006) and Segers et al. (2011). Specifically, both types involve non-employee coaches, who deal with change management, leadership and team development (corporate/executive) or who work with companies occupying up to 25 employees (internal). Following the reasoning provided in the previous paragraph, the use of term 'internal' in this categorisation is rather subjective, while, linguistically, it does not correspond to the semantic meaning of the word.

Finally, Segers et al. (2011) building on L'Abate, Frey, & Wagner's (1982) ERAAwC model, i.e. Emotionality, Rationality, Activity, Awareness, and Context, categorised coaching, also, in terms of the coaching approach adopted by the coach. In particular, they constructed five categories respectively to the five ERAAwC components: person centred, cognitive, action, transpersonal, and system.

Undoubtedly, the numerous types of coaching create additional tension and confusion in its theoretical underpinning. Moreover, taking into consideration that coaching has received a lot of criticism of being a temporary management trend (Agarwal et al., 2009; Grant & Cavanagh, 2007; Lapp & Carr, 2008; Segers et al., 2011), the lack of common understanding further diminishes its contribution of to management theory and practice. While the achievement of complete consensus with regard to the core meaning of coaching is unattainable and perhaps, detrimental to the critical character of scientific endeavour, a robust and methodical engagement with the concept may ensure minimisation of faddism and promotion of the epistemic character of coaching. In this regard, it is essential for each scientific endeavour to explicitly refer to the element that determines the denomination for the type of coaching under investigation.

Correspondingly, the thesis focuses on coaching, as it is determined by the status of the coach. Specifically, the type of coaching under investigation is managerial coaching, that is coaching delivered by one's line manager. Further, it is argued that managerial coaching is distinguished from other internal types of

coaching, in that it employs different psychosocial processes, including dissimilar power dynamics. Indeed, according to Boonstra & Bennebroek Gravenhorst (1998), the exertion of power is used to influence others and may result in resistance, or compliance and commitment (Falbe & Yukl, 1992). Under this line of reasoning, it is less likely for an employee to interact with a peer in the same way they interact with their manager when being coached.

Having contextualised coaching in general as a workplace practice and identified managerial coaching in the spectrum of development interactions, the following part examines the concept of managerial coaching as a leadership practice. It is envisaged that the identification of managerial coaching as both a workplace developmental interaction and a leadership practice will enable the multifaceted examination of the concept and thus, the development of a comprehensive conceptual framework.

2.3 Identifying coaching as a management practice

Section 2.2 clarified the concept of coaching by highlighting its distinctive characteristics in relation to other development interactions, while at the same time, identified managerial coaching as a specific type of workplace coaching. In turn, this section expands on the theoretical underpinning of managerial coaching in order to construct a conceptual model upon which to base the development of the hypotheses. Specifically, the section first elaborates on the relationship between coaching, managing and leading as behaviours, which are demonstrated by the functional team leader, i.e. the line manager. Thereupon, it discusses the importance of and rational for coaching knowledge workers, while it also discusses its positioning on the planned-unplanned behaviour continuum.

2.3.1 Existing controversy

There is little consensus on the association of coaching, as a dyadic intervention between a line manager and an employee, with managing and/or leading. Specifically, certain scholars address coaching as a core responsibility within a manager's role (Bartlett & Ghoshal, 1995; Deeter-Schmelz et al., 2002; Ellinger et al., 2003; Ellinger et al., 1999; Ellinger, 2013; Ellinger et al., 2011; Evered & Selman, 1989; Hamlin, 2004; Heslin et al., 2006; Jones, 1995; Orth, Wilkinson, & Benfari, 1987; Poksinska et al., 2013; Waldroop & Butler, 1996), others conceptualise it as one of many managerial tools/practices (Bond & Seneque, 2012; Ellinger & Bostrom,

2002; Hawkins & Smith, 2007; Slåtten et al., 2011), some others enlist it as one of many leadership styles/leader behaviours (Arnold, Arad, Rhoades, & Drasgow, 2000; Berg & Karlsen, 2007; Goleman, 2000; Hon & Chan, 2013; Vesterinen, Isola, & Paasivaara, 2009; Vesterinen, Suhonen, Isola, Paasivaara, & Laukkala, 2012), while some treat managing and leading as synonymous terms and thus, perceive managerial coaching to play an important role for either a manager or a leader (Carter, 2006; Ellinger et al.,1999; Hagen, 2010). Additionally, terms such as *leadership coaching* (Anderson & Anderson, 2005; Lee, 2003) further fuel the debate and add to the perplexity of the field, unless they are clearly defined.

Taking the above into consideration, one may argue that the controversy that exists in extant literature regarding the role of managerial coaching is triggered by the diachronic dispute between leadership and management (for a review v. Ali, 2013). In this regard, a systematic examination of managerial coaching as a practice conducted by the functional team leader to each one of the team members, necessitates a comprehensive understanding of the relationship between coaching, managing, and leading, which is pursued below with specific reference to knowledge workers and a knowledge-intensive environment.

2.3.2 Leading & managing knowledge workers

Since Drucker's (1988) first reference to *knowledge workers*, society has progressed well into the Information Age or Knowledge Era (Uhl-Bien, Marion, & McKelvey, 2007), where organisational knowledge is considered a strategic competitive advantage (Hagen, 2010; Uhl-Bien et al., 2007). The "all-knowing supervisors" who were able to divide each team objective into small, manageable and administrative tasks is extinct (Jones, 1995: 438). Their place has been replaced by managers, who lead a team of knowledge workers and who may not possess more knowledge than their subordinates, but better managerial competencies (ibid). Against this background, first Mintzberg (1971, 1975) and thereupon, other renowned academics (e.g. Kotter, 1982; Yukl, 2012) challenged Fayol's (1949) classical functions of management (i.e. planning, organising, commanding, coordinating and controlling) for their rigidness and obsolesce. Indeed, according to Yukl (2012) a manager's role is primarily to develop and maintain employees, receive and offer information, make decisions and influence others. In line with this, Stogdill (1974: 3) defines leadership as "the process of influencing the activities of an organized group in its efforts toward goal setting and goal achievement" and thus, indicates that being a

manager of others is a satisfactory condition to be considered a leader. Indeed, a manager is expected to develop, exchange information with and influence the team members towards the achievement of a set team objective. Hence, building on the abovementioned definition of leadership, a manager is also a leader – a position that has been supported by several scholars (Carter, 2006; Ellinger et al., 1999; Hagen, 2010). In this respect, Yukl (1989), in his article on managerial leadership, utilises the terms *manager* and *leader* interchangeably, while Joyce (2010: 423) argues that "in reality they exist within the one individual".

Figure 2.2 Managing vs. leading
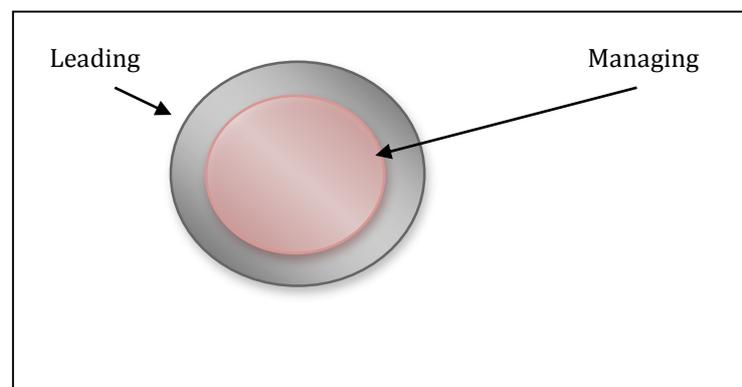
Be that as it may, in today's knowledge-intensive organisational settings, being a leader may not always denote that an individual is also a manager of others. In particular, while at the age of blue-collar workers and clerical work, division of labour was a straightforward task for a supervisor, which fell upon the *command* function; in the Information Age, using similar delegating techniques to highly knowledgeable staff may be unrealistic, since, for instance, it may not be feasible to divide a particular project into simple, administrative tasks. Under this line of reasoning, a team member may lead a particular initiative, process or project, which was delegated as a whole by the line manager and in this regard, may need to influence and coordinate the team towards the achievement of the task in hand. Therefore, the team member is a leader without also being the line manager. The relationship between leading and managing is depicted in Figure 2.2, according to which being a manager of others denotes leading others, while the opposite does not hold.

In line with the above, the following part elaborates on the practice of functional leaders coaching their reports, in order to identify managerial coaching within the spectrum of already established approaches, i.e. from a core responsibility within a

manager's role to one of many managerial tools. In doing so, the next part provides the basis towards a holistic definition of managerial coaching.

2.3.3 Functional team leaders coaching knowledge workers

Yukl's (2012) definition on the role of the manager recognises the interpersonal qualities of management practice and highlights a manager's interaction with others. In this regard, effective management necessitates effective interaction with team members, which, from a socio-psychological perspective, falls under the interpersonal processes. Taking into consideration that coaching focuses on enhancing capacity to work relationally, socially and organisationally (Bond, & Seneque, 2012), it may be argued that coaching contributes to managerial effectiveness by enriching the quality of a manager's interactions with the team members. As a point of fact, a study conducted by Hamlin, Ellinger, & Beattie (2006) found that being an effective manager or leader necessitates the effective coaching of subordinates. In other words, individuals will not be effective managers, unless they effectively coach their employees and hence, managerial coaching unfolds as the prevalent form of coaching in the workplace.

Furthermore, as discussed above, conventional command-driven delegation techniques are inadequate in knowledge-intensive contexts, where division of labour is not limited to the assignment of simple, repetitive work. Against this background, line managers coach their reports in order to enable them "to generate results and to be empowered by the results they generate" (Evered & Selman, 1989: 18). Under this line of reasoning, coaching emerges as the primary delegation process, during which, managers coach each team member in order to enable the latter to set and achieve goals in the future without their presence (v. section 2.2.2). Taking into consideration that the principle of division of labour, which is effectuated through the manager's delegation, lies at the core of management and organisational theory (Becker & Murphy, 1992; Fayol, 1949), it is seconded that coaching lies at the heart of management (Evered & Selman, 1989; Hamlin et al., 2006). The relationship between leading, managing and coaching is illustrated in Figure 2.3.

Indeed, Wreder (2007: 823) conducted a qualitative case study research on a Swedish bank that was awarded as "Sweden's best workplace" to investigate management methodologies for sick leave reduction and improvement of employees' health and well-being. The researcher found that managerial coaching emerged as one of the best practices, employed across the various hierarchical levels to promote

employees' health and wellbeing. In particular, Wreder found that coaching was used more consistently by middle managers; who, in turn, translated the strategic focus of senior managers to tangible objectives for office managers. In turn, office managers used coaching to set specific targets with their staff to achieve the above tangible objectives and improve the conditions for their colleagues. In this regard, the study further supports the argument that coaching represents a core delegation process that lies at the heart of management and offers significant organisational outcomes.

Figure 2.3 Managerial coaching vs. managing & leading
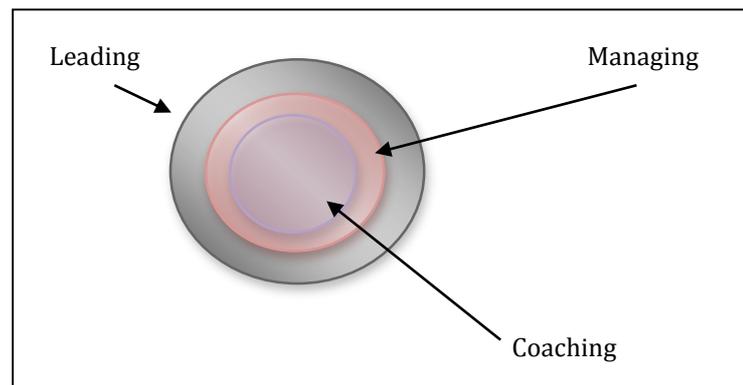
Notwithstanding the above, it is worth mentioning that managerial coaching is not delegation panacea for every type of employee. It is the appropriate method of delegation to knowledge workers; yet, its effect on blue-collar employees is unclear. Indeed, empowering employees to complete - without supervision - a task in the assembly line, where health & safety issues are major and ISO standards are extremely important, may have adverse effects.

Having elaborated on the nature of managerial coaching as a core management practice, section 2.3.4 examines the diverse ways in which it may be offered by the manager and received by the employee in a knowledge-intensive setting. In this respect, the following part contributes to a more comprehensive understanding of managerial coaching within the workplace.

2.3.4 Managerial coaching: formal or informal?

Managerial coaching appears to be the most preferred (Segers et al., 2011) and one of the most effective (CIPD, 2013) employee development practices in the workplace. In this regard, organisations are taking steps towards establishing formal

managerial coaching procedures (ibid.). Nevertheless, in line with a growing body of literature on the effectiveness of informal learning (e.g. Bednall et al., 2014; Hutchins, Burke, & Berthelsen, 2010; Marsick & Watkins, 2001; Runhaar, Sanders, & Yang, 2010), a comprehensive appreciation of the phenomenon necessitates the examination of all of the different ways in which managerial coaching may be conducted in the workplace.

In particular, it is anticipated that managerial coaching may occur as any of the three types of workplace learning identified by Watkins & Marsick (1992), i.e. formal, informal and incidental learning. The former refers to any planned learning, triggered by managerial initiatives (Nyfoudi & Shipton, 2014) - for instance, coaching sessions initiated by the team leader with the scope to improve a team member's skills and competencies. Informal learning relates to any naturally occurring learning exclusive of pre-planned managerial arrangements (ibid.). Often, this type of learning emanates from the social interaction of employees while in the workplace - for example, an informal discussion that occurs over a lunch break. Incidental learning denotes any accidental acquisition of knowledge and learning while being involved with unrelated activities (Watkins & Marsick, 1992). A case in point could be an employee overhearing the line manager coaching a fellow team member.

Having identified managerial coaching within the spectrum of workplace learning and management practices, the following section focuses on the operationalization of the construct.

2.4 Operationalization of managerial coaching

As discussed in section 2.2.2, little agreement exists over the definition of the term coaching. Be that as it may, past literature seems to concur with coaching being a conversational intervention, during which the coach, often, follows a specific process (De Haan & Burger, 2004). Indeed, a review of nine well-known coaching models reveals that cohesion exists with regard to the individual stages of the process (Table 2.2). Specifically, the stages of feedback, goal setting, implementation and evaluation of progress seem to run through all the different coaching models. This premise lies in accordance with the findings of Smither & Reilly (2001), who, after conducting a narrative review, identified five essential stages for effective coaching: a) establishing the coaching relationship, b) assessing the coachee's learning needs, c) creating a development plan comprised of specific goals, d) implementing the plan, and e) assessing the coachee's improvement and the coaching relationship. Although the

Table 2.2 Coaching models and stages

Model	Process Stages					
Allenbaugh (1983) FARE's technique	Employee self-evaluation	Meeting with supervisor	Implementation			
The GROW Method (Whitmore, 1992):	Goal	Reality	Options	Will		
Saporito (1996	Defining the process	Assessment of Individual	Development	Planning	Implementation	
Tobias (1996)	Gathering feedback	Identifying strengths/ weaknesses	Plan changes	Action		
Witherspoon & White (1996)	Commitment	Assessment	Action	Continuous Improvement		
Olivero, Bane & Kopelman (1997)	Goal setting	Problem solving	Practice	Feedback	Supervisory involvement	Evaluation of results
The ironic method (De Haan, 1999)	Presentation of the problem	Reformulation as a dilemma	The ironic intervention	Working through		
Douglas & Morley (2000)	Goal setting	Assessment	Awareness	Action planning implementation		
Winum (2006)	Assessment	Feedback	Planning	Development Integration		

coach may be the initiator of these stages; it is often the coachee who takes responsibility and ownership, while the coach assumes a secondary role. Each stage is examined more thoroughly below.

The first stage of the coaching process is the assessment of the situation or otherwise, giving feedback. In this stage, the manager/coach does not just simply convey performance results to the individual but offers constructive feedback (Berg & Karlsen, 2007) and converses with the individual in order to help the latter realise the reasons for receiving this feedback. This type of realisation has been defined as a "critical moment" in the coaching process (De Haan, Bertie, Day, & Sills, 2010: 607), during which the coachee unexpectedly acquires new insight, i.e. experiences an "aha" moment (Kounios & Beeman 2009) that enables them to alternate their point of view and identify different solutions. In this regard, three of the four effective coach's behaviours that Hoojberg and Lane (2009) identified in their qualitative study (identifying skills, identifying gaps and asking questions) become particularly relevant. In particular, identifying skills and gaps not only enables the manager to build on employees' strengths and delegate tasks to the team members more effectively, but also increases the employee's confidence in the manager being able to detect the appropriate developmental area for them. Asking questions and specifically systematic questioning is also an important coach's skill, since it facilitates "independent thinking" (Overholser, 1993: 67) and thus, empowers the coachee to translate the feedback received into specific goals and plans.

Indeed, unless feedback leads to setting specific goals, it is less beneficial for the feedback-recipient (Latham, 2007). On the contrary when feedback is combined with goal setting and the goals are specific and challenging, employees' performance is significantly improved (Locke and Latham, 2002; 2006; Latham & Locke, 2006). Particularly, Smith, Locke, & Barry (1990) found that setting specific goals increases the quality of planning, which ultimately influences the improvement in performance. In other words, when the quality of planning is high, the time spent planning is positively related to an improvement in performance; while when the quality of planning is poor, the time spend planning is negatively related to performance (ibid.). Relatedly, high quality planning during managerial coaching interventions ensures that the hours spent coaching an employee will contribute to their performance improvement. However, if the quality of planning is inadequate, then the time spent in coaching interventions is counterproductive. This could justify to a certain extent the

unanticipated findings in Ellinger et al.'s (2011) research, in which, low to moderate levels of coaching yielded higher improvement in employees' job performance.

Be that as it may, it is worth highlighting that in the goal setting stage of coaching, the manager assumes a secondary role, while the employee is responsible for setting specific goals to achieve in the near future. In this regard, it is essential for the manager to be competent in listening (Hoojberg and Lane, 2009), which has been recognised as one of the most useful qualities of a coach (De Haan, Culpin, & Curd, 2011). Indeed, listening not only enables the coachee to elaborate on their assessment and, thereupon, on their goals and plans, but also signals to them that they are responsible for the goals they set. The manager may still offer constructive suggestions and advice (Heslin et al., 2006), but it is essential to empower the individual coachee by "creating conditions for heightening motivation for task accomplishment" (Conger & Kanungo, 1988: 474). Indeed, by delegating responsibility and empowering the individual, the manager raises the employee's commitment towards achieving the set goals (Avolio, Zhu, Koh, & Bhatia, 2004; Zhu, May, Avolio, 2004; Thomas & Velthouse, 1990).

Successful goal setting owned by the employee facilitates the next stage of the coaching process. Indeed, the higher the commitment of the employee, the more successful is the achievement of the tasks (e.g. Avolio, Zhu, Koh, & Bhatia, 2004; Locke, Frederick, Lee, & Bobko, 1984; Riedel, Nebeker & Cooper, 1988) and thus, the implementation stage. The underlying rationale lies in that empowered employees are more committed in achieving specific goals (as discussed above) and thus, more likely to act upon these goals. Indeed, Hoojberg and Lane (2009) argued that unless the employee takes responsibility, the overall coaching intervention is futile. In the same vein, Evered and Selman (1989: 21) indicated that effective coaching necessitates the existence "of a demand for it"; highlighting the important role, which is played by the individuals in the effectiveness of the intervention. Successful assessment of the situation, reception of constructive feedback, specific goal setting and high quality planning render fruitless, unless the employee is willing to implement what has been agreed.

Once completed, the results of the implementation stage are fed into the last stage of the coaching process, i.e. the evaluation of the progress made. At this point, employee's reflection, which is defined as "the process of understanding what has been learned about one's own learning through reflection and then putting it into

practice" (Anderson, 2009: 122) and is manifested at either individual or collective level (Gray, 2007), plays an important role. According to Anderson (2009), the major contribution of a coach is to involve the employee with reflection and reflective practice. Indeed, reflection is not a naturally occurring process for the individual; yet, it may be learned through coaching (Gray, 2007). For instance, a manager may coach an employee by asking those questions that trigger an employee's reflection on a previous experience and, in particular, elicit appreciation of the various stepping-stones for learning and development. In point of fact, Wales (2002) found in the course of qualitative research that coaching helped employees to increase their self-awareness and confidence through reflection, which in turn had a positive impact on work-related competencies; namely leadership/management, assertiveness, understanding differences, stress management and work life balance.

Antonacopoulou (1999: 137) describes the process of acquiring self-awareness through reflection as "learning by knowing differently", which is based on Hedberg's (1981) *unlearning* and the Socratic notion of not knowing. This type of awareness is triggered by "willingness to improve", while it is conducive to change and knowledge sharing (Antonacopoulou, 1999: 137). In this regard, Luthans & Peterson (2003) found that coaching that was focused on developing managers' self-awareness decreased the discrepancy between managers' self-ratings and ratings received by others (e.g. peers, subordinates). In particular, with the help of coaching, managers were able to realise which of their behaviours resulted in the discrepancy and were assisted in setting specific objectives in order to change their actions and thus, improve others' ratings. Reaching self-awareness resembles the "aha" moment of the first stage, denoting that coaching is a continuous process that may lead the individual to continuous development, and deeper levels of self-awareness.

Taking the above into consideration, social cognitive theory and in particular, mastery modelling (Bandura, 1977; 1988; 1989; Ozer & Bandura, 1990; Wood & Bandura, 1989) may serve as a comprehensive frame to explain coaching and its various stages. Specifically, modelling is based on the processes of attention, retention, reproduction and motivation (ibid.), which may be activated through the various coaching stages. First, helping an employee to link the feedback received with particular patterns of behaviour and performance enables the manager to trigger the employee's attention. Second, setting specific goals helps the employee to retain their focus on exhibiting the envisaged behaviour or performance. Third, empowering the employee to set their own goals allows the manager to motivate the employee to act

upon these goals and achieve them. Finally, reflecting and reaching self-awareness assists the employee in realising the behaviours that contributed in achieving the set goals and thus, facilitates reproduction of the effective behaviours. Building on this, it is possible that managerial coaching serves as a regulating mechanism for employees' learning until the latter develop their own self-regulation mechanisms, which according to Karoly (1993: 25) refer to the sum of "processes, internal and/or transactional, that enable an individual to guide his/her goal-directed activities over time and across changing circumstances". Indeed, with regard to new skills development, Gresham & Nagle (1980) demonstrated that coaching is functionally similar to the process of modelling, in that it generates alike results.

Critically reflecting on the above stages, it seems that an assessment of and feedback on the current situation forms the basis of the coaching process, upon which specific development targets are set and action is planned and undertaken. In other words, the stages of goal setting, implementation and evaluation are not attainable, unless assessment and feedback takes place beforehand, whereby both the coach and the coachee evaluate the level of skills/performance needed and the reason why the employee has or has not met the expectations. In this regard, it seems prudent to elaborate on supervisory feedback in general and its difference to managerial coaching in particular as both interventions are based on feedback and are initiated by the line manager.

2.4.1 Managerial coaching vs. supervisory feedback

This part discusses feedback in order to offer a better understanding of its affiliation with coaching and thus, make more salient the differences between the two constructs. The adopted perspective is that feedback, albeit constituent, is but one of the components of perceived managerial coaching. Hence, it is rather examined as a first-order factor than a synonymous process.

Specifically, feedback could be divided into two categories: developmental feedback, the purpose of which is to provide information in order to improve an employee's SKAOs in the future without a particular objective in place (Zhou, 2003); and performance feedback, the aim which is to incentivize employees and keep them focused on achieving a particular objective (Payne & Hauty, 1955). Given the goal-oriented nature of managerial coaching, the second type of feedback when offered by the line manager is more relevant and thus, represents the focus of this part.

Kluger & DeNisi's (1996) meta-analysis on feedback interventions demonstrated that the complicated relationship between feedback and performance. Indeed, it appears that little conclusive evidence exists to suggest a positive relationship between the two variables. In this regard, they proposed and tested a framework according to which feedback interventions shift the attention of the feedback-recipient to different levels of task-related processes. Specifically, depending on the feedback given (positive or negative), the task details and the importance of the task, the individual may shift their attention on processes involving task learning, task motivation or self. When the attention is on task learning, feedback interventions are more effective, while when the attention switches to the self, feedback interventions are less effective. In contrast to feedback interventions, during which a manager offers solely feedback to the employee, managerial coaching "goes beyond giving feedback about what is right or wrong with an individual's performance" (London & Smither, 2002: 87). Indeed, when a manager coaches a team member, not only offers feedback to the latter but also links the feedback with the employee's particular situation, empowers them to set specific, performance-related goals and thus, directs their attention on tasks rather than self.

Relatedly, Smither, London & Reilly's (2005) meta-analysis on multisource feedback, also, demonstrated inconclusive results on the relationship between feedback and employees' performance. Specifically, with regard to supervisory feedback, the authors found a positive effect for eight of the 10 longitudinal studies included in the analysis, the average size of which was .15. In an effort to explain the relatively small sizes, the authors developed a conceptual framework according to which, other factors subsequent to multisource feedback play an important role in employee's behavioural change and thus, performance improvement. Indeed, for instance, Locke & Latham (2002) had already identified goal setting as an important factor that influences performance with feedback strengthening this positive relationship. In this regard, Smither et al. (2005) suggested that taking action is a sine qua non condition for feedback to improve performance. Also, they highlighted the need for managers or external coaches to act as supportive organisational mechanisms by not only highlighting the importance of taking action to the feedback-receivers, but also helping employees to set and achieve relevant objectives (ibid.). These actions are in line with the definition given for managerial coaching (v. section 1.2) and the argument that feedback is but one stage of the coaching process. Unless the subsequent stages are attained (goal setting, implementation, and evaluation of progress), feedback may be less effective in improving performance. In this regard,

managerial coaching appears as a more comprehensive solution than supervisory feedback in relation to employees' performance.

Having operationalized managerial coaching and also, demonstrated its differences with supervisory feedback, the following section elaborates on the development of a definition of managerial coaching.

2.5 Defining managerial coaching

Building on the above, managerial coaching may be defined as the dyadic practice between a line manager and a team member, with the scope to delegate work to the latter through an on-going process, during which the team member not only develops or improves skills, competencies and performance but also, is empowered to pursue similar goals in the future in the absence of the manager while working as part of a team. The line manager offers constructive feedback and together with the employee assesses the situation and agrees on specific goals and plans for the latter's development and/or improvement in the workplace.

The above definition corresponds to appeals for "a positive understanding of coaching" (Lapp & Carr, 2008: 552). Indeed, although the concept of coaching used to carry negative connotations (Berard, 2013; Witherspoon & White, 1996), due to having been initially employed as a remedial workplace intervention to tackle performance issues or a lack of skills, in recent years it has been increasingly recognised as a core management practice (e.g. Hamlin, 2004; Heslin et al., 2006). The line manager employs coaching with the purpose to guide each member of the team per se to eventually be able to achieve performance objectives while working alongside the rest of the team members without the presence of the manager. In this regard, the manager not only aims at developing the individual's skills and performance, but also at coordinating the team by delegating responsibility and empowering each team member to act upon the set objectives.

Critically reflecting on the above, the dual facet of managerial coaching may be more relevant in knowledge-intensive settings, in which employees have to both leverage their knowledge in order to handle less structured job descriptions (Horwitz et al., 2003) and to work in co-ordination with their fellow team members in order to achieve team objectives. Indeed, Johannessen, Olaisen & Olsen (1999) argue that the role of the manager as a coach corresponds to the shift towards more horizontal organisational levels, in which knowledge workers are empowered rather than

controlled. In this regard, Bhatt (2001) urges the organisations to adopt coaching as a way to promote team process behaviours among knowledge workers. Specifically, in knowledge-intensive settings, the manager of the team may not possess more knowledge than the individual employees, but better managerial competencies (Jones, 1995). Hence, the manager coaches each team member per se on soft rather than on technical skills and the purpose is not only to develop individual competencies, but also to trigger shared team processes, such as helping and sharing. Given that the team objectives in knowledge-intensive settings are usually "problems and issues as opposed to tasks" (Horwitz et al., 2003: 23), it is possible that the team process behaviours that are developed through coaching help in solving these challenges. As a point of fact, team process behaviours have been found to positively relate to team effectiveness (Janz, Colquitt, & Noe, 1997), and thus, it is likely that the team-level, co-ordinating facet of managerial coaching is more applicable in knowledge-intensive settings.

It is necessary to distinguish the above type of knowledge workers from those employees who, although possess knowledge and expertise, are not part of a team and work solely on an individual basis. Indeed, the co-ordinating facet of managerial coaching may not be relevant for the latter type of knowledge workers, as they may not have to collaborate on a daily basis with other fellow employees with the purpose to achieve team objectives. In other words, coaching as a team co-ordinating mechanism may not be useful to the managers of those employees, since there is no team and the delegation of tasks refers only to a particular individual. Relatedly, the co-ordinating facet of the practice may also not be relevant for managers of employees, who although work in teams, are less involved in knowledge creation and are more focused on performing repetitive or manual work. The underlying rationale lies in that this type of employees perceive their tasks more well-defined and structured (Stinson & Johnson, 1975) and thus, it is less likely for them to involve in coaching that is related to team co-ordination since it is less significant in their job. Be that as it may, all the above types of employees are expected to involve in coaching sessions with their manager for developmental purposes concerning their individual SKAOs, since the majority of employees possess individual objectives that need to be met in order for them to perform effectively in their job.

Building on the above, the present thesis focuses on employees, who form part of a team and work in knowledge-intensive settings, since the manager of this type of employees is more likely to practice both facets of managerial coaching. In this regard,

the following section develops an operational framework that draws on social psychology and is based on the given working definition of managerial coaching.

2.6 Effective managerial coaching – a socio-psychological approach

According to Gergen (1973), social psychology is the branch of psychology that focuses on human interactions in order to explain human behaviour. In particular it focuses on intrapersonal, interpersonal and group processes and represents "an attempt to understand and explain how the thought, feeling, and behaviour of individuals are influenced by the actual, imagined, or implied presence of others" (Allport, 1954:5). The present part builds on social psychology in order to develop an integrated operational framework on the workplace practice of managerial coaching and thus, contribute to the objectives of the thesis. In this regard, first it discusses the importance of shifting the attention to the quality of coaching. Thereafter, it elaborates on intrapersonal, interpersonal and team processes that serve as antecedents of effective managerial coaching, which in turn is related to employees' behaviour and cognition. Next, it expands on the multilevel feature of managerial coaching and the necessity to examine simultaneously the multiple processes that are related to the effectiveness of the intervention and its subsequent relation to employee's behaviour and cognition.

2.6.1. Effective managerial coaching vs. managerial coaching conduct

The previous section elaborated on the operationalization of managerial coaching as a process that incorporates four constituent stages. Process theories explain the way in which a practice is conducted, thus possess a sequential feature (Maertz & Campion, 2004; Markus & Robey, 1988); however, "the precursor is assumed insufficient to "cause" the outcome, but is held to be merely necessary for it to occur" (Markus & Robey, 1988: 590). In other words, feedback, goal setting, implementation and progress evaluation are sine qua non conditions for coaching to take place; yet, the amount of times they take place may not lead to effective coaching sessions and thus, important employee outcomes. A case in point is Ellinger et al.'s study (2011), in which selective rather than extensive conduct of managerial coaching was found to relate to a greater extent to the positive relationship between organisational investments in social capital and work-related performance. On the other hand, Agarwal et al. (2009), who instead of measuring coaching conduct measured coaching intensity (a combination of frequency and effectiveness of

managerial coaching), found that it is positively related to individual job performance. Based on these insights, it may be concluded that it is not the quantity but the quality of managerial coaching that leads to desirable workplace outcomes. Hence, one of the objectives of the present thesis (v. section 1.2) is to develop and empirically test a theoretical framework that is based on the effectiveness of managerial coaching rather than its mere conduct. Indeed, a general appeal exists to develop process models that not only explain the way in which a specific practice occurs but also, take into consideration the participants' "situated and personalised knowledge" (Jarzabkowski, Balogun, & Seidl, 2007: 13). In this regard, the present section develops an operational framework of managerial coaching that is based on social psychology and focuses not only on the process of coaching, but also on the individuals involved and the context within which coaching occurs.

2.6.1.1 Intrapersonal processes

As discussed in section 2.4, effective managerial coaching, as a dialogical workplace practice, necessitates the conscious involvement of both the manager (coach) and the employee (coachee). Both are equivalent members in the coaching relationship, during which they are involved in a *constructive behaviour* for developmental reasons (Agarwal et al., 2009). In other words, the manager-coach does not spoon-feed the employee with information on the specific actions that need to be taken nor merely reports performance feedback to the employee. Instead, the manager-coach listens, asks questions and identifies skills and gaps (Hooijberg & Lane's, 2009) in order to trigger the right employee actions and thus, help the employee develop within the workplace. In turn, unless the employee is actively involved in the process, the value of managerial coaching is limited. Indeed, Hooijberg & Lane (2009) highlighted that employee's responsibility is a determinant factor for effective coaching; while Armstrong (2009) indicated that employees, who acquire an active role in their development, sustain the skills acquired for a longer period of time. Thus, an employee, who is actively seeking opportunities for learning and holds accountability of the learning process, is expected to benefit more out of managerial coaching in terms of performance and skills improvement or development, while the benefits are sustained longer. In contrast, employees, who are less active in their personal development in the workplace, may find managerial coaching less effective.

Feedback-seeking behaviour (FSB) is one of the many ways, through which an employee may actively seek opportunities for learning in the workplace. Indeed, as early as 1983, Ashford & Cummings highlighted the importance of FSB, which they

described as employees' active monitoring and inquiring of information with regard to their organisational and personal objectives. At this point, it is worth distinguishing FSB from feedback orientation, which is defined as "an individual's overall receptivity to feedback" (London & Smither, 2002: 81; Linderbaum & Levy, 2010). Although both concepts originate in the seminal work of Ashford & Cummings (1983), who elaborated on the importance of taking into consideration the different behaviours of individuals with regard to the process of feedback, FSB differs from feedback orientation, in that the former necessitates action, while the latter denotes an inclination, which may or may not be realised. The majority of the theoretical substantiation of FSB in extant literature (e.g. Ashford, 1986; Ashford & Tsui, 1991; Luque & Sommer, 2000) has drawn on a cost-value framework, according to which employees assess the value of getting feedback (e.g. uncertainty reduction, role clarity) against the cost of receiving feedback (e.g. low self-worth). In other words, employees engage in feedback-seeking behaviours, in situations in which they perceive that the value of feedback is higher than the cost. In point of fact, Anseel, Beatty, Shen, Lievens, & Sackett's (2014) meta-analysis supported this premise. Specifically, the authors found a positive relationship between the value of feedback and FSB, meaning that the higher the value employees give to feedback, the more likely it is for them to actively seek feedback in the organisation. Given that feedback is one of the constituent components of managerial coaching, employees, who actively seek for evaluative information, may identify the practice as a potential source of such information and thus, actively engage with the manager as a coach.

Further, according to VandeWalle, Cron, & Slocum Jr. (2001), employees' perceptions regarding the value of feedback are influenced by their goal disposition: the more pre-disposed they are towards learning, the more valuable they perceive any feedback received. In line with this, Anseel et al.'s (2014) meta-analysis, also, found a positive relationship between FSB and employees' learning disposition. This finding demonstrates that the higher the learning disposition of individual employees, the more likely it is for them to actively involve with feedback opportunities. In this regard, employees with a higher learning disposition may engage more actively in managerial coaching, since they may perceive it as an opportunity to actively seek evaluative information. Given their active engagement, these employees may be able to benefit more out of managerial coaching than other individuals with a lower learning disposition.

Besides, according to Lewin (1936), behaviour (B) may be conceptualised as a function of personality (P) and situation (S), or B = f (P, S). Taking into consideration the importance of both the manager's and employee's involvement during coaching, it may be argued that their behaviour is influenced by their personality and the context, within which coaching takes place. With regard to personality, social cognition theory highlights the importance of intentions, goals and dispositions (Bodenhausen & Morales, 2012). In other words, the intentions, goals and dispositions of both members are important for the effectiveness of coaching and thus, the improvement of the coachees' performance, skills and competencies. Indeed, De Haan, Culpin, & Curd (2011) found indications that employees with different learning styles react differently to coaching. Taking the above into consideration, it is possible that employees with a strong learning disposition or intention to learn are these individuals who actively seek opportunities for feedback and hold accountability for learning and hence, benefit the most out of managerial coaching. Similarly, it is likely that skilled managers, who are motivated to develop their reports, are more careful in triggering the right employee responses, including self-reflection and thus, coach their reports more effectively.

As it has been discussed, managerial coaching is a dyadic interaction. Hence, its effectiveness is not solely related to intrapersonal, discrete attributes of the individual members involved, but also to interpersonal processes that arise from the interaction of both members with each other. The following part elaborates on the latter type of processes in the effort to build a more comprehensive theoretical underpinning of the effectiveness of managerial coaching.

2.6.1.2 Interpersonal processes

According to Hooijberg & Lane (2009), the chemistry between a coach and a coachee, which could be defined as the overall relationship between the two individuals, exerts influence on the effectiveness of coaching. This relationship may be subject to many factors. For instance, Carl Rogers (1951) argued that congruence, empathy, and unconditional positive regard are the three determinant characteristics of a successful client-centred relationship. In particular, both individuals need to consciously engage in coaching holding alike objectives; make the effort to understand the other part's point of view and situation, and treat each other with respect. In doing so, social bonding and trust is built within the relationship (Hansemark & Albinsson, 2004). Roger's (1951) three principles are in line with discussions about the significance of respecting the ethics of the coaching relationship in the effectiveness of the practice (De Haan & Burger, 2005; Jarvis et al., 2006; Shaw

& Linnecar, 2007). However, the manager-employee relationship differs from a client-centred relationship in that the formal chain of command renders it also susceptible to power dynamics and the learning environment, within which the practice takes place.

Indeed, Reissner & Toit (2011) indicate three types of power dynamics that need to be considered with regard to coaching: the power of the coach, the power of the organisation and the power of the coachee. In the case of managerial coaching, these different types of power could be interpreted as follows. The managers are those who initiate a coaching intervention (power of the coach), the organisation provides the relevant business resources (power of the organisation), and the coachee needs to be actively engage and undertake action (power of the coachee). An imbalance in the respective dynamics may result in ineffective coaching. A case in point could be a manager, who avoids coaching an employee for fear of losing power that is based on knowledge and expertise (i.e. expert power; French & Raven, 1959). Indeed, Shaw & Linnecar (2007: 52) second that effective coaches hold an unconditional positive regard for the coachee, that is, they may "orient towards selflessness while being 'self-aware' or possessing 'outwardness' ".

Undoubtedly, due to the proximity of the manager and the subordinate in the formal chain of command, managerial coaching is interwoven with situated learning, that is, learning which is transferred and exchanged at the place that was created (Greeno, Collins, & Resnick, 1996; Wenger, 1998). This type of learning not only highlights the importance of the aforementioned social learning (section 2.4) but also, the significance of the environment within which learning is achieved (Lave & Wenger, 1991). Fuller & Unwin (2003, 2010) developed a framework of the learning environment of an organisation, which may be identified anywhere within a continuum that varies from restrictive to expansive learning. According to the authors, within an expansive environment the managers promote employees' development and enable workplace learning. Thus, it may be argued that managerial coaching is by definition an expansive learning practice. Yet, according to Fuller & Unwin (2010), knowledge formation is not only determined by a manager's approach to workplace learning. The value of trust and expertise within the organisation as well as the promotion of additional learning opportunities play a significant role.

In line with this, Shannahan, Shannahan, & Bush (2013: 413) elaborate on "coachability", which refers to "the manifestation of the personality traits of achievement motivation, agreeableness, and conscientiousness that are triggered by

such situational and contextual features as a motivating manager or coach, available resources, and peer group support". In particular, coachability is not merely personality-based nor purely situational, but it represents an interactional variable contingent on employees being coachable and managers demonstrating coaching behaviours (Shannahan, Bush, & Shannahan, 2013). Building on this, it may be argued that the dyadic feature of the practice of coaching renders the employees' responsibility interlinked with manager's responsibility, the combination of which, together with intrapersonal and contextual factors are related to the effectiveness of managerial coaching.

Having elaborated on the intrapersonal and interpersonal processes, the following part examines teams as the immediate learning environment of the individual within the workplace, and managerial coaching as a team process that reciprocally relates to the individual and collective behaviour of team members. In doing so, it contributes to the development of a more inclusive theoretical foundation for the effectiveness of managerial coaching.

2.6.1.3 Team processes

Klein & Kozlowski (2000) elaborate on shared team properties, which are evoked by factors that are common within teams but different between teams, such as leadership processes. In particular, they argue that the team leader, who is different for each functional team per se, engages each member of the team with several leadership processes, including motivation, inspiration, development, and coaching. Under this line of reasoning, each team member receives coaching that is more similar among the rest of the team members than it is among members of different teams due to the fact that the coach, that is the line manager, is the same individual within each team. For instance, the members of a marketing team responsible for brand A are coached in a similar way on brand awareness due to the fact that the same brand manager coaches them. Yet, they are coached in a different manner than the members of the marketing team responsible for brand B, since the latter report to a different brand manager.

According to Morgeson & Hofmann (1999), regular interaction between the manager and each member of the team forms the basis of collective action. Specifically, the interaction generates patterns of accepted behaviour for both the manager and the employee, which informs and influences the communication and collaboration within the team. Thus, the team slowly but steadily acquires a collective

51

set of knowledge, while it shares similar assumptions about the legitimate ways of approaching certain situations and the acceptable means of interacting within and outside the team. In this regard, a collective structure is formed that encompasses the regular and continuous activities of the team, the combination of which renders the team "a unique entity" (p. 252). Hence, it is more likely for teams, in which the manager coaches effectively each team member per se, to cultivate a coaching climate and thus, for the team members to be more conducive to coaching and also, to feel empowered to achieve both individual and team objectives without continuous managerial supervision. In other words, through effective managerial coaching, team members may develop a shared way of understanding team processes and outputs, which enables them to work and co-ordinate their tasks effectively with minimum attrition.

Furthermore, Ployhart & Moliterno (2011) indicated that this shared understanding is also influenced by the individuals' SKAOs, is context-specific and highly valuable for the competitiveness of the organisation. Given that managerial coaching may not only be used as a remedial technique, but also as a practice to further improve one's strengths, it is likely that teams, in which the manager coaches effectively the majority of the members, leverage the different strengths of the individuals as "relational synergies" (Camagni, 1995: 203). This may facilitate co-ordination of individual tasks and achievement of both individual and team goals and hence, result in higher competitiveness in comparison to teams in which coaching is not widely adopted by the manager.

Having elaborated on the intrapersonal, interpersonal processes and contextual processes that are related to the effectiveness of managerial coaching, and subsequently, employees' behaviour and cognition, the following section develops an operational framework for the phenomenon under investigation. In doing so, the framework highlights the multifaceted nature of the examination of effective managerial coaching and forms the theoretical basis for the development of the hypotheses of the thesis.

2.6.1.4 Integration of processes

Among the numerous definitions of the term *learning*, Jarvis (2006: 13) has developed a comprehensive description that takes into consideration the different ways in which an individual may achieve learning. In particular, he defines learning as:

The combination of processes whereby the whole person – body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emotions, beliefs and senses) experiences a social situation, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the person's individual biography resulting in a changed (or more experienced) person.

In line with social psychology, the above definition highlights the influence of social conduct on an individual's behaviour, cognition and emotions. In this regard, managerial coaching, as a developmental social interaction, may be considered a medium through which learning is holistically achieved. Specifically, coaching may be conceptualised as a learning mechanism that involves social interaction with the aim to change one's behaviour and cognition. According to social psychology, the change entails not only intrapersonal processes that involve solely the individual, but also interpersonal and group processes that encompass the social context within which an individual employee performs and develops. Indeed, as discussed in the previous section, managerial coaching is an interaction mechanism that fosters collective learning, which sequentially, informs team and individual processes. Under this line of reasoning, a holistic investigation of the effectiveness of managerial coaching necessitates the consideration of all the different processes that reciprocally interact with the practice. In this respect, Figure 2.4 depicts an operational framework of managerial coaching. In particular, the practice of managerial coaching is represented as both a team and interpersonal process due to the fact that it involves a minimum of two individuals and it is shared among team members, i.e. it is more similar within teams than between teams. Further, Figure 2.4 illustrates that a combination of intrapersonal, interpersonal and team processes is related to managerial coaching, which at the same time, relates to a unique amalgamation of intrapersonal, interpersonal and team processes.

Figure 2.4: An operational framework for the examination of the quality of managerial coaching
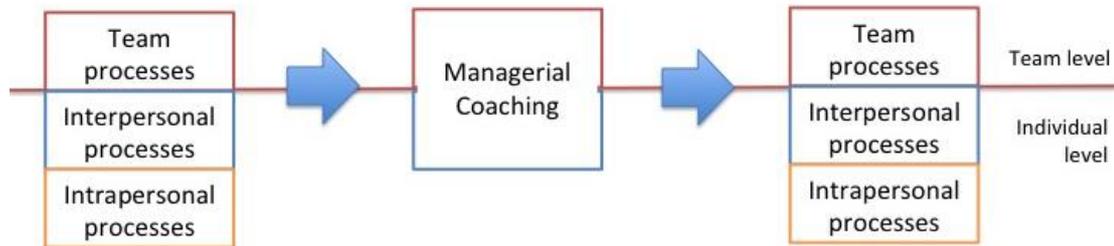
Note: _____ indicates team-level processes, _____ indicates individual level processes that entail interaction between two individuals, and _____ indicates individual level processes that involve an individual.

Thus, it may be argued that managerial coaching involves processes at different levels of analysis and hence, an examination of its effectiveness needs to take into consideration the change of behaviour and cognition at multiple levels of analysis. In particular, managerial coaching may be approached as a multilevel phenomenon, since it involves individuals, i.e. the manager and the team member, their interpersonal interaction and the context within which SKAOs are developed, i.e. the team. Indeed, Ployhart & Moliterno (2011) elaborate on this and highlight that single-level examination of the processes involved with SKAOs offers a partial and limited apprehension of the phenomena under investigation. In contrast, they propose a multilevel model that examines the reciprocal interaction between personality, cognitive abilities and shared team processes as a more inclusive method of investigation. In line with this, a holistic understanding of the effectiveness of managerial coaching necessitates a multilevel examination of the intrapersonal, interpersonal and team processes involved. Drawing on the abovementioned literature review, intrapersonal processes involve individuals' intentions, goals and dispositions; interpersonal processes encompass social cognition, situated learning and manager-employee chemistry, while team processes incorporate shared practices and collective action.

In line with this, Figure 2.5 represents the anatomy of the effectiveness of managerial coaching. Specifically, the practice of managerial coaching may be conceptualised as a three-dimensional (3-D) disk that consists of three concentric circles that reciprocally interact with each other. The circles correspond to the three

different levels of processes, i.e. intrapersonal, interpersonal and team processes that underpin managerial coaching, while the two compartments of the 3-D disk represent the different type of processes, i.e. behavioural and cognitive that may take place in each level.

Figure 2.5 The anatomy of managerial coaching
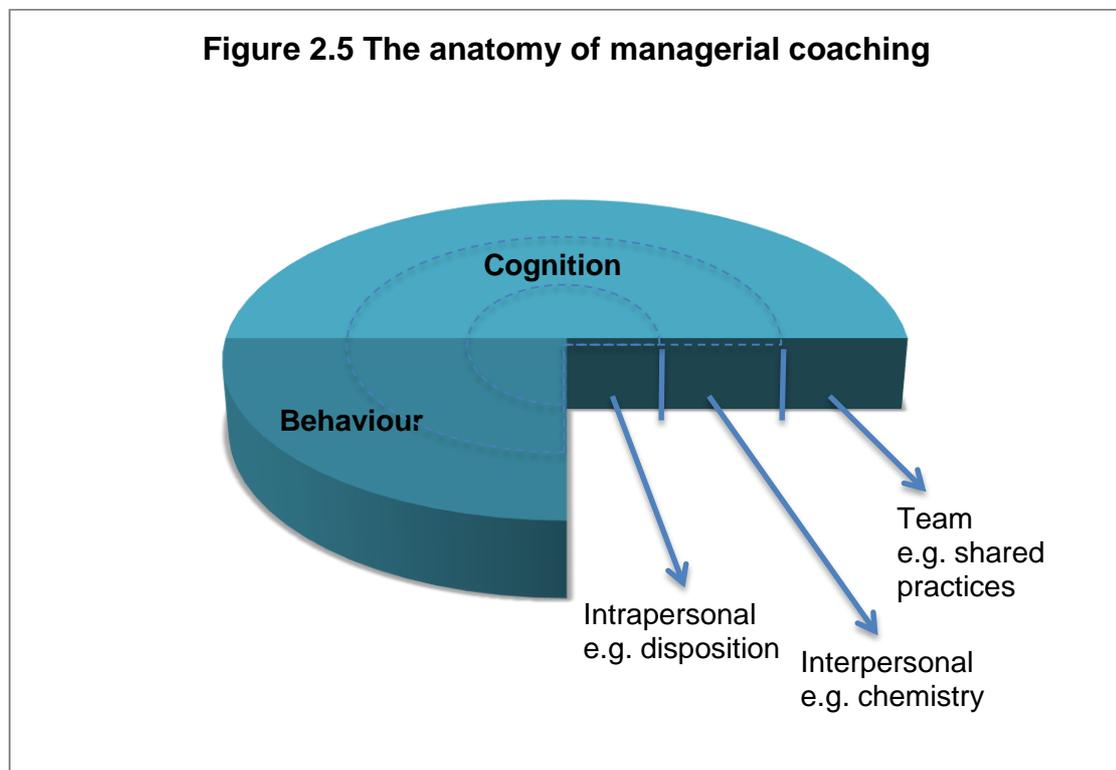
2.7 Chapter summary

The present chapter was divided into five sections in order to demonstrate the dual nature of managerial coaching as both a developmental and management practice. In this respect, it contributed towards a more comprehensive understanding of the practice.

Specifically, the first section elaborated on the developmental facet of managerial coaching by examining the historic backdrop of the practice and investigating definitions from both the coach's and the coachee's perspective. In addition, clarification was offered with regard to the similarities and differences of the practice of coaching with other developmental interactions, including mentoring and counselling, while an examination of the plethora of coaching types at the workplace revealed that the term *managerial coaching* draws its connotation from the status of the coach, i.e. the line manager. The second section expanded on the managerial facet of the practice by first examining the controversy that exists in extant literature

regarding the role of managerial coaching at the workplace and thereupon, detecting its source in the diachronic debate between managing and leading. In this regard, after elaborating on the relationship between managing and leading knowledge workers, it was theorised that, in knowledge-intensive organisational settings, managerial coaching represents the core management practice of delegation. Thereafter, the third section elaborated on the coaching process and its four stages, namely feedback (given by the manager), goals (set by the employee), implementation and evaluation of progress. It was discussed that unless each stage is effectively undertaken, managerial coaching may not be successful. The fourth section developed a working definition of managerial coaching and thus, met the objective of the thesis for a description of the practice that highlights its discrete and unique characteristics and elucidates the controversies in extant literature. As discussed in the introduction, such a description promotes further empirical research on the practice, while it enables practitioners not only to use the practice more effectively within the workplace, but also to gain more benefits out of its use. Finally, drawing on social psychology, the fifth section developed a comprehensive operational framework for effective managerial coaching that expatiated on the relationship of intrapersonal, interpersonal and team processes to the practice and its subsequent relationship to employee's behaviour and cognition. In this regard, the chapter highlighted the multiple facets of managerial coaching in the workplace; thus, contributing to the second objective of the thesis, that is, the development of a comprehensive, operational model that effectively captures managerial coaching as a practice that combines both workplace learning and managerial co-ordination for knowledge workers. In doing so, the section corresponds to calls for more integrated workplace frameworks (Griffin, 2011; Illeris, 2003), while it also highlights that the dual nature of managerial coaching renders its examination dissimilar to other types of coaching or other developmental interactions.

The following chapter builds on the above in order to contribute to the remaining objectives of the thesis. Specifically, it intends to underline the importance of the characteristics of the coach, the coachee and the context within which, managerial coaching takes place. In addition, it aims to examine the effectiveness of managerial coaching at both the individual and team level and subsequently, the relationship between the practice and important work outcomes at different levels. In other words, the next chapter develops a conceptual framework by examining more diligently the operational framework of this section and drawing on specific intrapersonal, interpersonal and team constructs.

3. Conceptual model and hypotheses development

3.1 Chapter overview

According to the literature review, managerial coaching constitutes the heart of managerial behaviour (Evered & Selman, 1989; Hamlin et al., 2006) and thus, plays a key role in the orderly running of the operations of the team and the development of team members. Building on social psychology, the examination of managerial coaching and its relation to workplace outcomes on an individual basis is partial and limited, since any cross-level and team-level processes are overlooked. Against this background, the present chapter develops a multilevel framework and hypotheses that take into consideration not only individual-level but also cross-level and team-level relationships. In doing so, it contributes to the objectives of the thesis for the development and examination of a comprehensive model that investigates managerial coaching at multiple levels of analysis. In particular, the chapter first examines the antecedents of managerial coaching at the intrapersonal, interpersonal and team level. Thereupon, it elaborates on the individual and collective facet of managerial coaching and its subsequent relation to behavioural and cognitive outcomes. Finally, the chapter examines managerial coaching and information sharing as potential mediators between the abovementioned antecedents and consequences.

3.2 Antecedents of effective managerial coaching

Adopting a socio-psychological perspective, this section expands on the antecedents of effective managerial coaching. In particular, employees' learning goal orientation is examined as a dispositional characteristic at the intrapersonal level. Thereupon, the quality of the exchange between the leader and the team member is investigated as an indicator of employees' chemistry at the interpersonal level. Finally, a manager's learning goal orientation is assessed as a shared team characteristic.

3.2.1 Team member's disposition

As discussed in section 2.6.1.1, social cognition posits that individual behaviour is influenced by intentions, goals and dispositions (e.g. Mischel & Shoda, 1995). In particular, it was argued that employees with a strong learning disposition or intention to learn actively seek opportunities for development and hold accountability for learning and hence, it is likely that they benefit the most out of developmental opportunities, including managerial coaching. Indeed, in their meta-analysis Blume,

Ford, Baldwin & Huang (2010) found a significant positive relationship between motivation to learn and transfer of training, while Armstrong (2009) seconded that when employees acquire an active role in their development, the skills obtained are sustained for a longer period of time. On the other hand, employees, who are not motivated to learn and to improve their competencies, are less likely to hold accountability for their personal development and thus coaching, as a developmental process, may be less effective.

Consistent with the notion of motivation to learn is the concept of goal orientation, which is based on achievement motivation theory (Dweck, 1986) and describes different inclinations of individuals towards the pursuit of goals in achievement situations (Brett & VandeWalle, 1999; Dweck & Leggett, 1988; Dweck, 1986). In particular, Dweck (1986) identified two main categories of goal orientation: learning goal orientation (LGO) and performance goal orientation (PGO). Learning goal-oriented individuals seek challenges and demonstrate substantial persistence in order to enhance their competencies (ibid), while they perceive the various situations as opportunities "that foster learning" (Godshalk & Sosik, 2003: 418). On the other hand, performance goal-oriented individuals are interested in the confirmation of the adequacy of their competences and thus, avoid challenges in order to diminish the likelihood of receiving negative feedback (VandeWalle, 1997). VandeWalle (1997) further refined the construct of PGO into two subcategories: a prove goal orientation and an avoid goal orientation. The former characterises an individual who exhibits competence in order to receive favourable judgements, while the latter refers to an individual's avoidance of negative feedback by eliminating the opportunities of proving incompetent.

According to Dweck (1999), the difference in orientation is not a matter of ability but it is based on a preference towards implicit theories of intellect. Specifically, individuals with a LGO believe that intelligence is malleable (incremental theory) and thus, they continuously set learning goals for themselves, that is, goals to increase their knowledge, competence or expertise. On the other hand, individuals with a PGO believe that intelligence is fixed (entity theory) and thus, they set goals either to demonstrate their 'fixed' competence or to avoid any negative feedback regarding their level of competence. Dweck (1986) refers to research experiments in educational psychology, in which children with PGO were found to experience difficulty in the acquisition and demonstration of cognitive skills when several obstacles were present. In contrast, under the same circumstances, for children with LGO, the challenge did not affect their determination or it even facilitated their performance.

Building on this, LGO is increasingly acknowledged as a potential significant factor in developmental interactions, such as mentoring (Egan, 2005; Godshalk & Sosik, 2003; Kim, 2007; Lima, 2004; Wanberg, Welsh, & Hezlett, 2003), while it has been found to strongly influence employees' promotion, turnover and retention (Lin & Chang, 2005). Further, in their study of managerial development, Dragoni, Tesluk, Russell, & Oh (2009) identified a significant positive relationship between employees' LGO and their participation in highly developmental assignments, which indicated that employees with a high level of LGO were more likely to take part in these assignments because thy perceived this challenge as an opportunity to further improve their skills and abilities. Given that in managerial coaching a manager does not spoon-feed the employee with performance feedback, but challenges the individual to associate the feedback received with their situation and find ways to act upon it, it is likely that employees high on LGO are more inclined to involve in such a dialogic intervention than employees scoring low on LGO.

As discussed in section 2.6.1.1, employees with a strong LGO perceive feedback as valuable information for their development and thus, actively seek feedback opportunities in the workplace (Anseel et al. 2015). That said, one of the constituent components of managerial coaching is offering feedback to employees. Hence, it is likely that the higher an employee's LGO, the more actively the individual to engage in managerial coaching, since they perceive it as a valuable opportunity to receive feedback and develop their selves. Moreover, VandeWalle et al. (2001) argued that in comparison to PGO-ed individuals, LGO-ed employees are more attentive to feedback and more likely to extract the right information from any feedback given and to act upon it. Building on this, it is possible that employees with a high LGO not only are more positively inclined to being coached by their manager, but also are more committed to follow through the stages of coaching (receiving feedback, setting objectives, implementation, and evaluation of progress); which may result in acquiring a more holistic and thus, more effective coaching experience.

Moreover, in a longitudinal study with salespeople, VandeWalle et al. (1999) found that employees LGO was positively related to goal setting and intended planning (Time 1), which in turn were positively related to performance (Time 2). Relatedly, Brett & VandeWalle (1999) found that employees' LGO was positively related to the achievement of developmental goals, which in turn were related to employees' performance. The findings of both studies are consistent with the concept of managerial coaching through which employees are guided to set their own goals in order to achieve not only personal development but also individual and team

performance objectives. Therefore, it is likely that managerial coaching is more suitable as a developmental intervention for those individuals who score high rather than low on LGO.

Further, given that individuals with a strong LGO are keen to involve in a dialogic interaction with their manager for developmental reasons, it is likely that the manager may reciprocate such behaviour by offering additional support and advice (Janssen & Van Yperen, 2004). Under this line of reasoning, it is possible that a manager may coach employees with a high LGO more actively and systematically as a result of them being more attentive and reacting well to such type of intervention. Indeed, according to the attraction-selection-attrition model (Schneider, Goldstein, & Smith, 1995), a manager with high LGO is likely to selectively coach those team members who also score high on LGO, given that they respond more positively to opportunities for learning, including coaching. In other words, it is possible that the higher the LGO of an individual, the more receptive they are to managerial coaching and in turn, the more diligently the manager coaches them; thus, resulting in a more effective overall coaching experience.

Taking the above into consideration, the study hypothesises the following:

Hypothesis 1: Employee's learning goal orientation is positively related to the perceived effectiveness of managerial coaching.

At this point, it is worth mentioning that goal orientation has been categorised in extant literature either as a dispositional characteristic that is stable over time (e.g. VandeWalle & Cummings, 1997; Brett & VandeWalle, 1999) or as a more temporal state that may be amplified or decreased depending on the situational circumstances (e.g. Button, Mathieu, & Zajac, 1996; Dragoni, 2005). In this regard, state goal orientation may be instigated by an intentional change in one's environment, including attending relevant training (Stevens & Gist, 2006; Elliot & Harackiewicz, 1996). Be that as it may, unless there is a targeted intervention with the purpose to activate an individual's state goal orientation, employees' goal orientation is rather stable and dispositional. Given that there was no manipulation of the situational characteristics in the present study, the thesis adopts a more trait-oriented approach with regard to goal orientation.

3.2.2 Team member – employee chemistry

According to Hooijberg & Lane (2009), the chemistry between the coach and the coachee, which may be defined as the overall relationship between the two individuals, exerts influence on the effectiveness of coaching. In the case of managerial coaching, the team leader and the team member are linked through a formal chain of command and thus, the leader-member exchange (LMX) theory may serve to explain the quality of their overall dyadic relationship. Indeed, LMX, as a theory that focuses on the dyadic relationship between a leader and the subordinates per se (Graen & Uhl-Bien, 1995), is directly relevant to the role of the line manager as a team leader and a coach. In particular, LMX theory posits that a leader holds different types of relationships with each of the individual members of the team both in terms of resource exchange and support (Liden, Erdogan, Wayne, & Sparrowe, 2006). Thus, a few members of the team (the in-group) may enjoy more benefits than the rest of the team members (the out-group). Under this line of reasoning, one of these benefits may entail more diligent coaching to the in-group rather than out-group employees.

Furthermore, Sue-Chan, Chen, & Lam (2011) demonstrated that LMX is significantly related to employees' attributions regarding their manager's coaching. In particular, they found that an employee's perceived quality of LMX was positively related to their attributions about the value of managerial coaching for themselves, and negatively related to their attributions about the value of the practice for their managers. Taking into consideration that attributions exert an important influence on an individual's perceptions and behaviours (Weiner, 1985), they may also relate to the effectiveness of coaching. Indeed, Scaduto, Lindsay, & Chiaburu (2008) found that the quality of exchange between a manager and an employee influences the motivation of the latter to participate in developmental interventions, which eventually impacts on skill transfer, maintenance and generalisation. Against this background, it is suggested that the better the perceived quality of LMX, the more willing the employee is to involve with and develop through coaching conducted by their team leader. Taking this into consideration and building on the abovementioned argument that a team leader may exert more effort in coaching in-group employees, the following hypothesis is proposed:

Hypothesis 2: The quality of exchange between a manager and an employee is positively related to the perceived effectiveness of managerial coaching.

3.2.3 Team leader's disposition

Heslin et al. (2006) conducted two studies, in both of which they found that managers holding an entity theory were less willing to coach employees than managers holding an incremental theory. Specifically, the former type of managers believed that employees' skills and competencies are "fixed" and thus, they could see limited value in the effort of developing them through coaching. On the contrary, incremental-theory managers were of the opinion that the skills and competencies of an individual may change and hence, they were more prone to engage in coaching practice. The beliefs of incremental theorists correspond to the abovementioned implicit person theory of malleability of intelligence, from which the achievement motivation theory and learning goal orientation originate (Dweck & Leggett, 1988). In this regard, it is possible that managers who score high on LGO are more willing to coach their employees not only due to the fact that they possess a self-interest in continuous personal development but also, because they believe in skills development through interventions. Indeed, Leisink & Knies (2011) conducted a study with front line managers and older workers in the Netherlands and found that managers' perceptions on their abilities and willingness to coach were positively related to the amount of support they offer to older workers.

In addition, according to the Ability-Motivation-Opportunity (AMO) model (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Boxall & Purcell, 2003; Purcell, 2003), motivation plays an important role in the effectiveness of an individual in performing a particular task. In particular, the more willing and motivated an employee is to carry out the task, the more effort is placed in the endeavour and thus, the higher the chances of an effective undertaking. Similarly, the more willing a manager is to involve with employee coaching, the more a conscientious effort is exerted and hence, the larger the likelihood of conducting effective managerial coaching interventions. Therefore, it is possible that managers with high LGO are more effective in coaching their employees than managers with low LGO, which leads to the formation of the following hypothesis:

Hypothesis 3: Manager's learning goal orientation is positively related to the perceived effectiveness of managerial coaching.

Further, according to goal congruence theory (Argyris, 1957; 1964; 1973), a manager with high LGO, who actively involves and effectively engages in coaching employees, satiates the learning needs of an employee, who also scores high on LGO. This corresponds to Muchinksy and Monahan's (1987) supplementary fit, where

organisational features supplement employees' development needs. On the other hand, a manager with low LGO is less likely to find value in an employee developmental intervention such as coaching and thus, to satiate the learning disposition of an employee with high LGO. Hence, it is possible that when both a manager and an employee score high on LGO, it is more likely that they actively engage in a coaching developmental conversation, and thus, it is more likely that they get the most out of the interaction; resulting in an overall more effective coaching experience. Hence, the study posits the following:

Hypothesis 4: A manager's learning goal orientation moderates the relationship between an employee's learning goal orientation and perceived effective managerial coaching in such a way that the relationship is stronger when the manager scores high rather than low on learning goal orientation.

3.3 Consequences of effective managerial coaching

Further to the above, the synthesis of the literature review concluded that managerial coaching, as a dyadic reciprocal interaction that is shared between the members of a team, is a regulating mechanism that promotes individual and collective learning by triggering behaviour and cognitive processes. In this regard, the following section examines managerial coaching as both an interpersonal workplace practice and a shared team process that relates to employee's behaviour and cognition. Specifically, managerial coaching is investigated as a multilevel phenomenon that is related to work-related outcomes, including employee's performance and information sharing.

3.3.1 Effective managerial coaching as an interpersonal workplace practice

Past research examined the relationship between managerial coaching and task performance and found that the extent to which employees perceive that a manager exhibits coaching behaviours at the workplace is positively related to employees' task performance (Kim et al., 2013; Liu & Batt, 2010; Stoker, 2008). Be that as it may, Ellinger et al. (2008) published a study using multisource data, according to which, managerial coaching behaviour exerts an indirect rather than a direct effect on performance. Specifically, they found that perceived managerial coaching behaviour moderates the positive relationship between a firm's market orientation and individual performance in such a way that the relationship is stronger for higher levels of such behaviour. By identifying a direct or an indirect effect of managerial coaching behaviour on task performance, the above studies contribute

significantly to the coaching literature and highlight its importance in the workplace. Indeed, as discussed in section 2.3.3, coaching lies at the heart of management in knowledge-intensive settings and hence, managers exhibit coaching behaviours in a formal or informal way. Nevertheless, exhibiting coaching behaviour may not be indicative of effective coaching. In particular, a manager may give feedback, set specific targets and facilitate action; yet, not effectively perform the above actions. As a case in point, in another study, Ellinger et al. (2011) found that selective rather than exhaustive use of managerial coaching moderates the positive relationship between perceived organisational investments in social capital and employee performance. In other words, Ellinger et al. (2011) demonstrated that exercising managerial coaching at low to moderate levels strengthens to a greater degree the above positive relationship than exhaustive use of managerial coaching; hence, indicating that effective coaching is not *de facto* equivalent to displays of coaching behaviour.

On the other hand, as it was discussed in section 2.4, managerial coaching, when conducted effectively, acts as a regulating process that helps employees develop their own self-regulating mechanisms. Indeed, building on social cognitive theory and mastery modelling (Bandura, 1977; Bandura, 1988; Ozer & Bandura, 1990; Wood & Bandura, 1989), it was discussed that effectively integrating the four stages of coaching (i.e. feedback, goal setting, implementation, and evaluation of progress) corresponds to the four conditions of effective modelling (i.e. attention, retention, reproduction and motivation). In this regard, during the last stage, the manager triggers employee's reflection with the aim to enable the latter to reach self-awareness and realise which behaviours are successful in achieving the set goals and performance-related targets. Hence, when managerial coaching is effectively conducted, it facilitates the reproduction of only the successful behaviours, i.e. the behaviours that lead to goal and performance achievement. In this regard the study posits:

Hypothesis 5: Effective managerial coaching is positively related to individual task performance.

Further, Piaget (1954) argues that two types of learning exist: accommodation and assimilation. The former refers to the creation of new mental schemata, while the latter denotes integration of already existing schemata with new information. Given that managerial coaching, as a workplace practice, is underpinned by situated learning, it may be argued that the manager facilitates employees' accommodation and assimilation in the workplace. Specifically, a manager provides the team members

with all the necessary knowledge and resources in order to perform their duties (accommodation), but also coaches the team members to acquire a better, more holistic understanding (assimilation) and thus, improve or develop further their skills and performance. For instance, a manager inducts a new hire in the organisational culture, common practice and new tasks (accommodation), while coaching another team member on communication strategies (assimilation). Indeed, Smither et al. (2003) found that after undergoing coaching sessions, employees at the executive level were more capable of setting specific goals, sharing feedback and asking for feedback from their superiors. In other words, the coaches facilitated the employee's assimilation process, which resulted in skills improvement regarding goal setting, giving and seeking feedback.

Further, teams possess transactive memory (Ployhart & Moliterno, 2011) and know-how that resides within the team environment and it is difficult to transmit in a distant context, such as a classroom (Bresman, Birkinshaw, & Nobel, 1999). Indeed, this type of collective knowledge emanates from a shared understanding of the processes of the organisation that has been developed through collective action and the everyday interactions of the team members (Klein & Kozlowski, 2000; Morgeson & Hofmann, 1999). Furthermore, it is rare, difficult to transfer to another organisation, imitate or substitute and thus, a potential source of sustainable competitive advantage (Barney, 1991). In this regard, a manager, who effectively coaches each team member, provides the latter also with information on this type of tacit knowledge and the ways in which it is formed and transferred through the team members' interactions. For instance, the members of a work team may prefer to discuss and interact through a messenger company's social network, than during a break by the water cooler. By guiding a new hire to adopt the former approach, the coach enables the employee to adjust quicker in the new environment and start rapidly interacting and co-creating knowledge. Indeed, Salas & Von Glinow (2008) indicated that knowledge is, primarily created and transferred at the individual and group level and then applied at the organisational level in the form of innovative processes and procedures that create a competitive advantage.

Taking the above into consideration, it may be argued that through effective coaching – which encompasses the stages of feedback, goal setting, implementation, and progress evaluation – employees obtain all the necessary information that may help them develop and further improve their performance. Indeed, Hooijberg and Lane (2009) found that after participating in executive coaching sessions, the majority of

managers preferred to receive multisource feedback from a coach in an interpretative way. In other words, they valued when the coach was explaining to them the results and translating them into tangible actions. Thus, in line with the previous hypothesis, it may be argued that through managerial coaching employees are able to make the necessary cognitive connections between their past behaviour and their evaluation. Besides, the coaching interaction itself may represent an opportunity for further knowledge creation that, in turn, is shared with the rest of the team members through their regular interactions. Hence, it is possible for employees, who are effectively coached by their line manager, to report a higher flow of information within the organisation in comparison to employees, who are less effectively coached. Therefore, the following hypothesis is suggested:

Hypothesis 6: Perceived effective managerial coaching is positively related to information sharing.

3.3.2 Effective managerial coaching as a shared team process

Managerial coaching, as a leadership practice that is employed by the team leader in order to develop and delegate tasks to all the team members, is more similar within a team than between teams (v. section 2.6.1.3). In this regard, the dyadic interaction between the manager and the employee generates patterns of behaviour that are shared primarily within the team; hence, forming collective learning and action that facilitates both the individual and team objectives. Nevertheless, the quality of coaching provided by the line manager differs for each team member as a consequence of dissimilar employees' dispositions towards learning and differences in leader-member chemistry (v. section 3.2). Hence, besides that every team possesses different levels of collective learning due to a different combination of members' skills, knowledge and abilities, they also differ in the quality of coaching, which they receive cumulatively as a whole and which, in turn, relates to both team and individual work-related outcomes.

Specifically, managers in knowledge-intensive settings utilise coaching not only to develop their team members but also to effectively delegate responsibilities. In addition, in such complex contexts, teams develop relational synergies and thus, each team member possesses a particular set of skills, knowledge and abilities that is unique and available to the rest of the team members in order to achieve the overall team's objectives (Ployhart & Moliterno, 2011). Yet, relational synergies may not be harnessed, unless information on each team member's qualities is shared within the

team. Mesmer-Magnus, DeChurch, Jimenez-Rodriguez, Wildman, & Shuffler (2011: 215) argue that "if information is not effectively shared among team members, the team is not able to fully capitalize on the informational resources initially distributed throughout their team". Hence, given that a manager possesses such information in order to effectively delegate the various tasks and also taking into account that as an effective coach, the manager guides and supports the team members towards achieving their individual objectives, it may be argued that through coaching, knowledge about the abovementioned relational synergies is transferred from the manager to the employee. Further, according to Mullins & Christy (2011: 221) "teams tend to be a mirror image of their leaders" and thus, a leaders' management style and leadership is indicative of the behaviour of the leader's team. In other words, leaders, who effectively coach the majority of team members and therefore, share information with all of them, create an information sharing culture that promotes the exchange of information among the employees. Under this line of reasoning, it is likely for employees, who belong to a team in which the members receive on average better quality of managerial coaching, to perceive greater information flows within the organisation in comparison to employees who are members of a team in which managerial coaching is not effectively offered to all the team members.

Further, Antonacopoulou & Chiva (2007: 284) highlighted the existence of "co-ordination mechanisms" that enable actors with different individual interests to work together for a common purpose. In this respect, the role of the manager is highly significant. Specifically, as discussed above (v. section 3.3.1), managerial coaching helps an employee to decipher the behaviour that needs to be demonstrated at the workplace in order to achieve individual and subsequently, team objectives. Hence, it may also be regarded as a co-ordination mechanism for team effectiveness. Indeed, managerial coaching allows the employee to understand what is needed in both explicit and implicit terms i.e. with regard not only to specific knowledge and relevant skills, but also to the way in which, one needs to behave as a member of a team, co-operate and perform tasks alongside colleagues respectively. Hence, it is possible for teams, in which the majority of employees are effectively coached, to achieve better communication and co-ordination, since the employees have a better understanding of both the boundaries of their remit as well as the underlying interaction mechanisms. In this regard, they may achieve greater social cohesion, i.e. "synergistic group interaction", and thus, they may be more effective (Barrick, Stewart, Neubert, & Mount, 1998: 382). Under this line of reasoning, it is likely for teams, in which members

receive on average better quality of coaching, to perform better than teams, in which members receive less effective cumulative coaching.

Furthermore, Antonacopoulou & FitzGerald (1996), suggested that mutual support and collaboration among colleagues influence individual achievements. Indeed, employees operate as part of a team rather than as single units; thus, in addition to team effectiveness, also their individual performance is influenced by the amount of cooperation, cohesiveness and information that exists within the team. Thus, employees, who belong to a team, in which the members receive on average better managerial coaching, may achieve better individual performance than employees, who are members of a team, in which managerial coaching is not effectively conducted to all the team members. Indeed, Agarwal et al.'s (2009) multilevel study on sales associates demonstrated that the effectiveness of managerial coaching combined with the frequency of such behaviour (i.e. coaching intensity) was positively related to employees' performance after controlling for job satisfaction; while the relationship was stronger in lower levels of the hierarchy.

Building on the above, the study hypothesises the following:

Hypothesis 7: The average perceived quality of managerial coaching conducted to the members of a work team is positively related to the members' individual perceptions about information sharing.

Hypothesis 8: The average perceived quality of managerial coaching conducted to the members of a work team is positively related to the members' team task performance.

Hypothesis 9: The average perceived quality of managerial coaching conducted to the members of a work team is positively related to the members' individual task performance.

3.4 The mediating role of effective managerial coaching

As discussed, team members, who maintain a high quality of LMX with their managers, enjoy a greater exchange of resources and support than other colleagues and thus, they are more likely to report a wider flow of information than their counterparts in the out-group. Indeed, past empirical research has found that LMX is significantly and positively related to both information sharing (e.g. Carmeli, et al., 2011; Sias, 2005). Hence, it is likely that managerial coaching represents one of the

workplace mediums through which managers transfer information to the in-group employees. Taking the above into account, the following hypothesis is formed:

Hypothesis 10: Effective managerial coaching mediates the relationship between the quality of leader-member exchange and perceived information sharing.

3.5 The mediating role of perceived information sharing

According to social information processing theory (Salancik & Pfeffer, 1978), individuals learn to perform a particular behaviour predominantly through the study of informational and social cues of the environment in which that behaviour resides. In particular, the higher the availability of relevant information, the quicker the employees adjust their behaviour in an appropriate way. Indeed, it may be argued that employees, who are effectively coached by their line managers, receive an abundance of information and hence, they are more successfully able to decipher the social cues within the workplace. Under this line of reasoning, effectively coached employees may use their competencies to exhibit the most appropriate - according to the contextual indications - behaviours and thus, enhance their performance. In addition, abundance of information may trigger positive employee emotional responses due to the fact that they feel less insecure and more confident about the appropriate ways, in which they need to behave and perform. In this respect, Kuvaas & Dysvik (2010) reported a positive relationship between information sharing and affective outcomes, including affective commitment and turnover intentions. Indeed, it may be argued that in organisations, in which information is shared freely, employees feel they are a significant part of the organisation and are more certain in terms of what they need to do to perform effectively. As a result, they draw more satisfaction from their job and are less likely to leave the organisation than their counterparts, who work in settings with less information sharing. Hence, it may be argued that employees, who are effectively coached by their managers, receive useful and adequate information, which enables them to feel more confident in terms of the appropriate behaviours they need to exhibit, and thus, they perform better. Against this background, the following hypothesis is formed:

Hypothesis 11: Information sharing as perceived by the individual employee mediates the positive relationship between effective managerial coaching and individual job performance.

Figure 3.1 Managerial coaching: a cross-level socio-psychological perspective
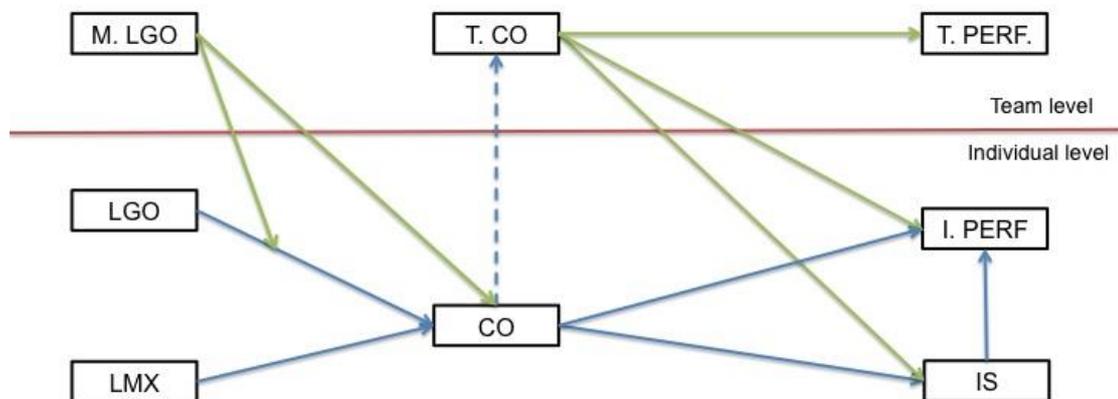
LGO= Learning Goal Orientation, LMX= The Quality of Leader-Member Exchange, CO= Perceived Managerial Coaching Effectiveness, IS= Information Sharing, I. PERF= Employee's Individual Task Performance, T.CO = Team-level perceived managerial coaching effectiveness, M.LGO= Manager's LGO, T.PERF= Employees' team task performance

3.6 Process integration

In line with Ployhart & Moliterno (2011), the thesis proposes a multilevel model (depicted graphically in Figure 3.1) that elaborates on the cross-level interaction of the processes and highlights that a single-level examination offers a partial and limited apprehension of the phenomenon. In particular, managerial coaching, as both a developmental and managerial practice, is related not only to intrapersonal and interpersonal processes but also to team shared practices. In line with this, Armstrong (2009) argues that although learning is considered a more self-managed process, employees need to be given a certain amount of direction on the skills and competencies required for a specific job role. In this regard, the contribution of the line manager is significant. Indeed, DeTienne, Dyer, Hoopes, & Harris (2004) stated that the human factor plays a major role in the creation, transfer and use of knowledge, while Beattie (2006) highlighted the need for line managers to assume more responsibility for the development of their reports.

Further, the proposed model highlights the individual and collective facet of managerial coaching and identifies the synergies achieved in the development and improvement of work-related outcomes. Specifically, the model identifies that effective managerial coaching relates to behaviour and cognition not only as a dyadic practice

between the manager and the employee, but also as a shared team practice. Hence, a comprehensive examination of the reciprocal interaction between effective managerial coaching and behavioural and cognitive outcomes necessitates the consideration of both its individual and collective facet. In turn, such a comprehensive examination lies in accordance with social cognitive theory and the premise that individual behaviour is explained via the interaction of cognitive, behavioural and contextual factors (Latham & Saari, 1979; Wood & Bandura, 1989).

All in all, it may be argued that managerial coaching represents a core management practice that enables the managers not only to develop their reports to perform better but also to equip the individuals with all the necessary skills and knowledge in order to operate effectively as team members. In this regard, teams in which line managers effectively coach the majority of the team members, benefit the most out of managerial coaching, since they enjoy the synergistic effects of both the individual and collective facet of managerial coaching.

3.7 Chapter summary

Adopting a socio-psychological perspective, the chapter was divided into five sections in order to develop a comprehensive and multilevel conceptual framework that captures the individual and collective facets of managerial coaching. In particular, the first section of the chapter expanded on the antecedents of effective managerial coaching, including employees' LGO, manager's LGO, and the quality of LMX between a manager and an employee. In this respect, the framework highlighted the significance of not only the coach but also the coachee and the context within which managerial coaching takes place. In doing so, the section contributed to the objectives of the present thesis and to the partial so far examination of the effectiveness of the practice.

The second section elaborated on the consequences of effective managerial coaching. In particular, the section examined effective managerial coaching as a dyadic workplace practice and its relation to important work outcomes, including individual performance, and perceived information sharing. In addition, the section investigated the relation of effective managerial coaching as a shared team practice to the abovementioned outcomes and also, on team performance. In doing so, the section theoretically underpinned the examination of both single-level and cross-level relations of managerial coaching and hence, highlighted not only its developmental, but also its managerial facet. Indeed, managerial coaching as a shared team practice

operates as a co-ordination mechanism of the individual team members' skills, knowledge and attitudes that enables both the team as a whole and the team members per se to perform effectively in the workplace. Under this line of reasoning, the section advances the theoretical foundation of coaching and highlights the limited scope of a single-level examination of the consequences of the practice.

Finally, the third and fourth sections elaborated on managerial coaching and information sharing as mediation mechanisms that link intrapersonal, interpersonal and group processes with important work outcomes, while, the fifth section discussed the model as an integrated whole. The aim of the final part of the chapter was to highlight the reciprocal interaction of the various processes and thus, to argue for a holistic apprehension of the effectiveness of managerial coaching that entails multiple processes at multiple levels. Indeed, the sections underlined the significant potential of managerial coaching as a workplace practice for the development and co-ordination of knowledge workers.

The following chapter elaborates on the research methodology that was adopted in order to empirically examine the abovementioned conceptual framework and hypotheses. In doing so, the chapter builds on the theoretical foundations that were established in the present and previous chapter in order to align measurement with theory and, thus provide justification for the espoused methods.

4. Research methods

4.1 Chapter overview

The present chapter elaborates on the research methods used to test the hypotheses presented in the previous chapter. The aim is to provide a rationale behind the selection of specific techniques and in addition, to exhibit the necessity of their inclusion for the purposes of the analysis. Specifically, the chapter begins by discussing the adopted research paradigm, ontology, epistemology and axiology. Thereupon, methodological aspects are discussed, including the research design, context, and procedure. Thereafter, the sample size, the measures used in the questionnaires and the data analytic techniques are examined. Finally, the chapter concludes after taking into consideration the ethical aspects of the research project.

4.2 Research paradigm

Guba & Lincoln (1994: 105) argue that "questions of method are secondary to questions of paradigm (...), the basic belief system or world view that guides the investigation, not only in choices of method but in ontologically and epistemologically fundamental ways". Thus, it is deemed appropriate to examine these topics prior to discussing the methodological design and analysis. The aim is to set the foundations of a robust research design and pave the way for the adopted research strategy. Indeed, Easterby-Smith, Thorpe, Jackson, & Lowe (2008) argued that a good understanding of the research paradigm enables the researcher to tackle the constraints of previous research; and thus, examining the adopted epistemology, ontology and axiology also enables the accentuation of the contribution of the present research project.

Scientific knowledge represents the prevalent method for researchers to acquire knowledge regarding the world, since it is based on the rationalistic processes of explanation and prediction (Hair Jr., Money, Samouel, & Page, 2007) or evidence and justification, which posit the research findings as credible or plausible (Lee & Lings, 2008) Indeed, Parmenides (c. 540 – 480 B.C), who introduced the concept of rationalism, argued that "human reason is the primary source of knowledge" (Gaarder, 2003: 30). With regard to management research, field research represents an important necessity that increases the credibility or plausibility of the findings (Edmondson & McManus, 2007). Specifically, evidence provided by the originally collected data contributes to knowledge creation and thus, increases the possible

contribution of a research study. Nevertheless, the characterisation of such knowledge as scientific lays in its justification, that is, the logic in which the knowledge was created (Lee & Lings, 2008). The latter refers to the methodology of science and it is examined further below.

The present thesis adopts the ontological perspective of objectivism, according to which reality is independent of social actors (Saunders, Lewis, & Thornhill, 2012) and thus, "organisations and cultures are objective entities that act on individuals" (Bryman, 2008: 21). In essence, the present research study is based on the position that "management is similar in all organisations" and any differences between organisations account for objective, measurable differences in aspects of the structure of management and not the function of management per se (Saunders et al., 2012: 131). In accordance with objectivism, the thesis adopts the epistemological perspective of positivism, that is, it aims to identify, measure and model important constructs for an organisation (Lee & Lings, 2008). The focus is on identifying the regularities in a set of data in order to create generic laws about management practice (Saunders et al., 2012). These laws are based on data that are observable and external to the researcher (ibid.) and thus, constitute objective reality, assessed via a single measurement (i.e. at a single point of time). The overarching aim of the inquiry (axiology) is to achieve knowledge that is valuable for the social world and that contributes to the improvement of management practice.

Further, Aristotle (384 – 322 B. C.), who introduced the concepts of "deduction" and "induction" setting the foundations of the scientific enterprise, perceived "scientific inquiry as a progression from observations to general principles and back to observations" (Losee, 1980: 6). At present, the concepts of deduction and induction are used to describe the different approaches adopted, so as a science to accept or reject "the truth of the knowledge created" (Lee & Lings, 2008: 39). Thus, in line with the ontological, epistemological and axiological perspectives adopted above, the project follows the hypothetico-deductive approach to accept or reject the objective truth. Specifically, the hypothetico-deductive method necessitates the initial use of theory, which is followed by hypotheses, data collection and testing of the hypotheses (Riley, Wood, Clark, Wilkie, & Szivas, 2000). Consistent with this approach, the project, firstly, elaborates on theory in order to form appropriate hypotheses, which in turn are objectively measured with a specific research design and type of data collection.

Having discussed the underlying ontology, epistemology and axiology, the following part elaborates on the adopted methodology for the study.

74

4.3 Methodology

According to Dhawan (2010), research methodology refers to the study of the scientific procedure that entails not only the various techniques employed but also the underlying logic that provides justification for their use. In this respect, the following section elaborates on the adopted research design, context and procedure of the thesis in order to describe the adopted research methods and expand on the rationale behind their selection.

4.3.1 Research design

Edmondson & McManus (2007) argue that in order to conduct rigorous and effective field research, care should be taken for methodological fit. Building on McGrath's (1964) argument that research methodology should be primarily determined by prior knowledge; they posit that the methods adopted for a research project need to fit the state of prior theory in the specific topic. As examined, the theoretical underpinnings of managerial coaching reside in both workplace learning and delegation/empowerment literature. Thus, in a continuum that represents the maturity of the field from a nascent to a mature stage, the middle point between the two fields represents the state of prior theory in managerial coaching. Specifically, a plethora of papers on delegation and empowering leadership renders the field mature; yet, the growing literature on managerial coaching in combination with an increasing amount of published articles on workplace learning in general, have widened the field and given considerable impetus for further research, thus, transferring the state of prior research at the middle of the continuum. Under this line of reasoning and in order to build on previous findings and research, the study adopts a quantitative research design.

Specifically, the research adopts a cross-sectional research design employing survey-based primary data. Surveys as a type of quantitative technique are deployed in a rapid and cost-effective way (Easterby-Smith et al., 2008) covering a vast amount of situations (ibid) and gaining breadth of information. Further, the ability to analyse the collected data with statistical techniques may improve the generalizability and replication of results (Bryman & Bell, 2007). On the other hand, quantitative techniques in general have been criticised to present a static and artificial view of life (Bryman & Bell, 2007). Yet, as discussed above, a researcher who adopts a positivistic perspective is interested in examining the objective truth and thus, it may be argued that quantitative data does not represent a static and artificial view but life

as it actually is. Under this line of reasoning, although longitudinal data would have offered an insight over a certain time order of the variables (Bryman, 2008), collecting data at a single point of time enables the examination of the hypotheses formed and thus, first and foremost the understanding of life as it actually is at present. Consequently, a cross-sectional quantitative research design contributes, indeed, to knowledge creation since it enables comprehension of reality as it stands at this moment in time.

Quantitative data has been denounced as ineffective in explaining processes or the importance of human actions (Easterby-Smith et al. 2008). The present study tackles this criticism by adopting a multilevel design, in which not only individual and team level processes are examined, but also cross-level processes are assessed. Indeed, Ployhart & Moliterno (2011) highlight the lack of frameworks that investigate the way in which constructs are related and transformed across levels, and urge for the development of multilevel models that capture not only single-level but also, cross-level effects. Finally, quantitative methods have been attacked as irrelevant in decision-making, for the reason that it is difficult to conclude to specific strategies and actions from the data analysis (Legge, 1984). The counter argument for this premise lies in Bouchard's (1976: 402) effective reasoning: "The key to good research lies not in choosing the right method, but rather in asking the right question and picking the most powerful method for answering that particular question". Thus, considering that the overarching aim is to understand the world and not to explain it, the use of quantitative methods is legitimated.

Further, as discussed above, the research project adopts a positivistic perspective, according to which the aim is to discover the universal truth, which is independent of its actors. Thus, it may be argued that the project adopts an etic approach, in which the objective is to examine phenomena that are generalizable across cultures (Berry, 1989) in contrast to an emic approach, in which researchers are examining phenomena that are bound within one culture (Berry, 1989; Helfrich, 1999; Rogers, Peterson, & Albaum, 2013). While the distinction between emic and etic approaches originates in the work of Pike (1954) in linguistics and anthropology, the two approaches are not contradictory or mutually exclusive. Indeed, Helfrich (1999) argues that both approaches rather complement each other, that is, by comparing the findings of emic and etic research, one may enhance their knowledge with regard to a particular culture and its actors. Taking the aforementioned into consideration, the present research project adopts an etic approach in examining the phenomenon of managerial coaching, its antecedents and its consequences in the organisation, while

also being vigilant in emic, culture-specific dimensions. Thus, the study adopts a cross-cultural design by conducting research in two European countries and has employed relevant data analytic techniques (v. sections 4.6.1 and 4.7.1.3) in order to ensure cross-cultural equivalence.

Hitt, Beamish, Jackson, & Mathieu (2007) argued that the level of analysis needs to correspond to the level, at which the theory has been developed. For instance, if a hypothesis discusses the relationship between two group-level constructs, then it is necessary to implement the analysis at the group level. The level at which the data are measured may differ, i.e. in the example above, data could be measured at the individual level and then, get aggregated at the team level; yet, the aggregation of data need to be theoretically substantiated. Considering the framework of the theses and the hypotheses, the data analysis needed to provide answers to the following main questions:

- Are employees' LGO and LMX related to the effectiveness of coaching?
- Is effective coaching (at the individual and team level) related to important work outcomes?
- Do any team level characteristics, such as manager's LGO, play a moderating role in any of the above relationships?

Thus, the research design needed to facilitate three types of analysis: firstly, analysis of individual-level data; secondly, analysis of team-level data and thirdly, analysis of cross-level effects. While analysis of individual-level data may be facilitated by the direct collection of individual-level data, analysis of team-level data and cross-level effects entail either collection of individual-level data aggregated to the team level or direct collection of team-level data. With regard to data aggregation, the theoretical underpinning of the thesis offers justification for aggregating individual-level data at the team level. Specifically, the thesis adopts a socio-psychological approach and argues that within-group members share similar experiences while they are also under the influence of the same manager and thus, they have more similarities with each other than with other individuals who are members of a different team. Indeed, according to the study of Cannon & Edmondson (2001), employees possess certain beliefs that are shared within teams and different between teams, while Stewart (2006) argues that a team leader represents the physical intermediary in the interactions of a team with the organisation. Besides aggregated data, the conceptual model elaborates on specific team-level characteristics, including manager's learning goal orientation, which cannot be measured at the individual level, since they would give the same values for all the different members of the team. Thus, direct

measurement of team level data was also requisite. Consequently, two types of questionnaires were designed for the purposes of the present research project. First, an individual employee questionnaire, which measured individual level variables and facilitated both individual-level and team-level analysis (with aggregated data). Second, a team manager questionnaire, which measured team level variables and enabled cross-level data analysis.

Prior to the main data collection, a pilot study was conducted to eight knowledge workers, who were nested into four teams and to their respective managers in order to ensure that the procedure ran smoothly and the questionnaires read well and were in the right format. Indeed, as Van Teijlingen & Hundley (2002) highlighted, a pilot study constitutes an important part of an effective research design, since it is possible to identify unforeseen issues and take remedial action regarding the research methods, procedures and questionnaire comprehension before the actual study. In this regard, the research procedure was effective, while the participants commented positively on the apprehension and relevance of the questionnaires. Be that as it may, the researcher found that the format of the last part of the questionnaires, regarding the demographic data, was quite confusing for the participants and thus, it was amended for the main data collection.

Further, Podsakoff et al. (2003) have discussed the diverse sources of common method biases in empirical research. Specifically, they argued that when both the dependent and the independent variables are drawn from the same participant, self-report bias might render these two variables to co-vary. The sources of self-report bias are numerous, including response consistency motif, illusory correlations, social desirability, leniency biases, acquiescence, positive and negative affectivity, and transient mood state (ibid.). According to Podsakoff et al. (2003), drawing the measures of dependent and independent variables from different sources may tackle this type of bias. Under this line of reasoning, the team manager questionnaire measured also an individual-level variable, i.e. employees' individual performance and thus, enabled the use of multiple-rater data in order to avoid common method bias.

The following part discusses the context of the research, including information about the type of employees recruited and the participant organisations.

4.3.2 Research context

As discussed in section 3.1, managerial coaching enables managers to guide their team of knowledge workers towards the achievement of goals that are both important for the organisation and for the progression of the individuals in the organisation. Managerial coaching builds on soft skills rather than on technical skills and thus, it is better suited for knowledge workers, since they are expected to use, exchange and develop new knowledge in order to achieve their work outcomes. Under this line of reasoning, one of the key criteria in recruiting organisations for research was the existence of knowledge-intensive settings, in which knowledge creation and exchange is an essential aspect of an employee's job. Specifically, due to the adopted multilevel design, organisations needed to have teams of knowledge workers and access had to be given for data collection from both team members and managers. In addition, the organisations needed to consist of more than 80 individual knowledge workers, in order to maintain the minimum statistical power of 0.80 (d=.15, r_{xy}=.5). Further, drawing from the adopted objectivist ontological perspective that management in organisations is comparable, another aim was to recruit organisations from different countries, where the economic conditions are different, and thus, to show that managerial coaching has similar effects in organisations separate from their geographical context.

Three organisations met the above criteria and were included in the study. These organisations vary in terms of industry sector and country; nevertheless, they are similar in terms of service coverage, i.e. they have local, national and international customers, and service/product information, while others in the industry have adopted their innovations in terms of services/products offered and human resource management. Although the organisations employed different types of employees, the survey focused only on knowledge workers. Following the argumentation employed by Fuller & Unwin (2010), comparison of these employees is possible due to the fact that knowledge creation – irrespectively of the different purposes it serves - is part of their job requirements. More information regarding the characteristics of the organisations is provided in table 4.1.

As it has been discussed already in section 4.3.1, the aim of the present research project is to acquire an insight and a general understanding of the already mentioned research questions by studying these particular cases. Thus, the researcher is involved in an instrumental type of case study (Stake, 1995). According to Stake (1995), the basis for selecting a case for examination should be the

maximisation of possible learning. Accordingly, one of the primary reasons for recruiting MachineCo, ConsumerCo and ProfessCo was the fact that others in the industry adopt their processes. Further, despite that all three organisations value the development of their employees and promote the use of various formal or informal learning interventions, none of them had an established coaching-related intervention already deployed to the organisation. The managers of all three organisations were not trained on how to coach their employees, nor coaching was included as part of their performance appraisal. In other words, there were no formal, planned organisational initiatives in place with regard to coaching, and therefore coaching was practised informally at the discretion of line managers.

Specifically, MachineCo is a large organisation that is based in Greece and operates in the Machinery industry. According to the typology developed by Deshpandé, Farley, & Webster Jr., (1993), the culture of MachineCo could be categorised as that of a Clan, as it s focused on developing human resources, while loyalty and tradition pervade all of its processes. The employees in this organisation work in an open plan office design in close proximity to their managers. The performance of employees is usually assessed by their technical expertise and the quality of the service they provide to different stakeholders (customers, employees, suppliers, local community), while there are no clearly set team objectives in all the departments.

ConsumerCo is a medium-size organisation that operates as a subsidiary of a multinational company employing overall more than 66,000 individual employees. It is based in the U.K. and conducts business in the Consumer Services industry. The environment within which, ConsumerCo operates is very competitive and the organisation has adopted a Market culture (Deshpandé et al., 1993). The focus is on providing a better service than the competition, while achievement of goals and competitiveness are its determinant characteristics. Similarly to MachineCo, the employees in this organisation work in an open plan office design in close proximity to their managers. Their performance assessment is based on the quality of the service provided to different stakeholders and on specific sales indicators. Each team is given clearly set objectives and it is benchmarked against the performance of other subsidiaries of the parent company.

ProfessCo is a large organisation that operates in the Professional Training industry in the UK. Its culture resembles more to a Maintenance culture (Deshpandé et al., 1993) in that emphasis is given on rigid rules and policies, while the structure is

hierarchical with several levels. In this organisation, attention is given in the efficient running of the operations. Employees work in enclosed private offices that may accommodate from one to five individuals and therefore, they are in less proximity to their line managers in comparison to the employees of the above two organisations. Their performance assessment is based on the quality of the service provided to different stakeholders, while there are no clearly set team objectives in all the departments.

It is worth acknowledging that the recruitment of these three organisations was not based on probability sampling and that they were convenience samples. This means that although specific recruiting conditions were placed (as discussed above), the researcher was able to collect data from these organisations as a result of their accessibility. For example, ProfessCo was recruited through a call of interest that was placed in an issue of the alumni newsletter of Aston University. The list of Aston University alumni contains a small amount of individuals employed in an organisation that is part of the targeted population. Therefore, the possibilities of representing the whole population are low, and therefore, this impacts on the generalizability of the findings. With regard to MachineCo and ConsumerCo, they were both recruited through a chain of weak interpersonal ties, which acted as intermediaries between these companies and the researcher.

Table 4.1 Organisational characteristics of participating companies

| Company* | Country | Size | Industry | Access Given to | | Total |
				Employees	Managers	
MachineCo	Greece	800	Machinery	132	27	159
ConsumerCo	U.K.	230	Consumer Services	93	27	130
ProfessCo	U.K.	800	Professional Training	141	32	172

Note: ConsumerCo is a subsidiary of a multinational company employing overall more than 66,000 individual employees. * Original names are concealed.

4.3.3 Research procedure

The researcher initiated the data access procedure through a gate keeper, who was either the Human Resource Manager (MachineCo and ConsumerCo) or the Learning and Development Manager (ProfessCo) in the organisation. Nevertheless, in all three cases, another employee from the same department was given the responsibility to

liaise with the researcher and provide her with the necessary information (e.g. participants' e-mail addresses, team membership), support (e.g. survey reminders) and access (e.g. access to premises, introduction to survey participants). Thereupon, either the Human Resource or Learning and Development Manager sent an e-mail to all the involved in the form of a cover letter in order to inform them about the study, its voluntary and confidential character and potential benefits for the organisation.

In ConsumerCo and ProfessCo, the data collection was conducted through the use of an electronic survey application. Specifically, participants were sent an electronic hyperlink through e-mail and they could access the survey by clicking on the hyperlink. The contact details of the author were widely available in order to allow the respondents to ask questions and facilitate the survey. On the other hand, in MachineCo, the data were collected primarily through hard copies. In particular, the company asked the researcher to visit its premises for data collection. Individual appointments were arranged with the managers in order to further explain the purpose of the survey and to provide them with the questionnaire together with an empty envelope. On the last day of the survey, the author visited each manager and collected the sealed envelope with the completed questionnaire. The employee questionnaires were distributed to the participants at the end of their monthly meetings. Specifically, the author was invited to attend these meetings in order to distribute the survey to the employees together with an empty envelope and answer to any questions and queries. While responding to the survey was voluntary, most of the participants chose to return the envelope to the author sealed with the questionnaire. The existence of an envelope facilitated the voluntary character of the survey by giving the opportunity to the participants of both the managers' and the employees' survey to return a blank questionnaire within the sealed envelope without the fear of being identified. Indeed, few participants chose to do so and the research collected in total nine blank questionnaires (all from team members).

The next section elaborates on the specific characteristics of the participant employees and their managers, including sample size and demographics.

4.5 Sample

As it may be observed in table 4.1, not all employees participated in the survey. First of all, this is due to the fact that not all employees of the participant organisations were characterised as knowledge workers. Secondly, the research project targeted only those employees who occupied jobs from entry to middle level

management. The underlying reason lies in the fact that these are the employees who benefit the most out of coaching conducted by a line manager. Indeed, managerial coaching focuses on the development of soft skills and organisational know-how, which are expected qualities of senior managers.

By and large, the target sample size accounted for 452 respondents (86 managers and 366 team members), of whom 273 (70 managers and 203 team members) returned the questionnaires, which corresponds to a 59.96% response rate (81.4% for the managers and 55.46% for the individual employees). Exclusion of incomplete questionnaires as well as pairing managers with the respective teams limited the sample size to 251 respondents (60 managers and 191 team members), which represents a 55.5% completion rate (69.77% for managers and 52.2% for individual employees). Listwise deletion rendered a final number of 234 respondents, i.e. 58 managers and 176 team members. The analysis included the two team managers and 15 team members wherever possible, i.e. CFA and multigroup CFA in order to improve the statistical power. All the aforementioned participants responded to the central variable of the project, i.e. managerial coaching, and have only failed to answer a single random scale from the entire questionnaire.

With regard to the sample demographics, each team consisted of an average of three individuals. Further, 37.45% of the 251 respondents were females (23.33% of the managers and 41.88% of team members). Managers reported an average of 9.46 years (s.d. = 5.97) in the organisation, 5.2 years (s.d. = 5.42) in the position and 3.17 years (s.d. = 4.14) under the same line manager. Respectively, the average organisational tenure of team members was 5.11 years (s.d. = 4.13); their average position tenure was 3.76 years (s.d. = 3.8), while they reported on average 2.63 years (s.d. = 2.87) under the same team manager. Regarding their educational background, 9.7% were senior high school graduates (8.3% for managers and 10.16% for team members), 8.1% had attained a college degree (3.33% for managers and 9.62% for team members) and 63.16% an undergraduate university degree (58.33% for managers and 64.71% for team members), while 19.04% had achieved a Master qualification (30.04% for managers and 15.51% for team members). None reported the acquisition of a PhD qualification. Finally, 19.1% (6.67% of managers and 23.12% of team members) reported an age between 18-25, 46.34% (40% of managers and 48.39% of team members) between 26-36, 27.24% (40% of managers and 23.12% of team members) between 37-47, 6.47% (11.67% of managers and 4.84% of team

members) between 48-58, and 0.85% (1.66% of managers and 0.53% of team members) reported an age above 58 years old.

Having discussed the sample characteristics, the following part expands on the measures employed in the questionnaires, including the procedure undertaken with regard to the translation of the scales into the Greek language.

4.6 Measures

Drawing on the conceptual framework, the thesis highlighted the importance of employees' and managers' disposition to learning and the chemistry between the manager and the employee as antecedents of effective managerial coaching. Likewise, the literature review indicated that effective managerial coaching is related to important employee work outcomes, including task performance, and information sharing. Against this background, the present part elaborates on the particular measures that were employed to examine the abovementioned constructs as well as any other control variables. In addition, this part discusses the procedures that took place in order to translate the questionnaire into the Greek language. In doing so, the thesis offers a more comprehensive understanding of the research procedure and the subsequent findings, while it also facilitates the generalizability and replicability of the results.

4.6.1 Translation of questionnaires

As it has been already stated above, MachineCo is a Greek organisation and thus, both questionnaires had to be translated into Greek. Brislin's (1980) translation-back-translation technique was used in order to ensure that respondents in both countries would approach the items of both questionnaires in a similar fashion in terms of meaning and significance. In particular, firstly, the author translated the items of both questionnaires into Greek and thereafter, a bilingual knowledge worker was employed to translate the questionnaires back to English. The project employed a knowledge worker in order to ensure that the items of the questionnaires captured not only the same meaningfulness but also the same significance for the respondents in both countries. Thereupon, a native English Human Resource and Psychometrics expert was employed to compare the translated back to English questionnaires with the initial English versions. The comparison yielded minor changes in a couple of items in the Greek questionnaire and subsequently, both questionnaires were tested in a pilot study in Greece, as discussed above, to ensure that employees similar to the

participants of the main study found the questionnaires comprehensive and relevant. In addition, both questionnaires were sent to the Human Resource Manager of MachineCo to ensure that wording agrees with the organisation's business context. Similarly, the English versions were also sent to the Human Resource and Learning and Development Managers of ConsumerCo and ProfessCo respectively. All three organisations authorised the use of the items in both questionnaires; yet, MachineCo requested the items regarding turnover intentions to be removed prior to the collection of data.

4.6.2 Team member questionnaire

The 50-item questionnaire contained validated scales that measured the following constructs: learning goal orientation, managerial coaching effectiveness, information sharing, and leader-member exchange. It also contained other scales (such as performance goal orientation and turnover intention), which are not listed below due to the fact that they do not form part of the conceptual model and hypotheses development.

Learning goal orientation: The learning goal orientation dimension was measured using VandeWalle's (1997) 5-item validated scale. Sample items include: 'I am willing to select a challenging work assignment that I can learn a lot from' and 'I often look for opportunities to develop new skills and knowledge'. The responses were measured on a seven point Likert scale ranging from 1 (=strongly disagree) to 7 (= strongly agree). Cronbach's alpha reliability was α = .84 (UK sample α = .84, Greek sample α = .85).

Managerial coaching: Considering the central role of this construct for the purposes of the present research project, substantial and deliberate evaluation over the available validated instruments ensured the selection of the most appropriate scale. Specifically, the author identified three potential scales developed by Ellinger et al., (2003), Heslin et al. (2006), and Smither, London, Flautt, Vargas & Kucine (2003) respectively. Although they share some common items, most of them are different (v. Appendix 7.1). Specifically, Ellinger et al.'s (2003) 5-item scale focuses on five different themes (setting expectations, broadening employees' perspectives, providing feedback, soliciting feedback & being a resource), while Heslin et al.'s (2006) 10-item scale focuses on three themes (guidance, facilitation and inspiration). On the other hand, Smither et al.'s (2003) 6-item scale seems to encompass more appropriately the four stages of the coaching process (section 2.4), of which feedback is a constituent component. Indeed, Ellinger et al.'s (2009) scale encompasses certain items that may

be considered as a broader managerial behaviour, e.g. item=5, 'Provide employees with resources so they can perform their jobs more effectively', while Heslin et al.'s (2006) scale includes items that may be regarded as broader leadership behaviour, e.g. item=10, 'Support you in taking on new challenges'. As it has been argued earlier in section 2.3.3, coaching is a core management process and thus, may share certain aspects with managing and leading; nevertheless, managing and leading are broader concepts and thus, not only encompass coaching but also, other workplace practices. Furthermore, carefully examining the above scales, Ellinger et al.'s (2003) and Heslin et al.'s (2006) scales measure perceived coaching behaviour, while the latter measures perceived coaching effectiveness. Under this line of reasoning and due to the fact that aim of the present project is to capture perceived coaching effectiveness, Smither et al.'s (2003) scale appears as more appropriate for the purposes of the thesis.

Further, although a constituent part of Smither et al.'s (2003) scale is perceived feedback, the measure successfully captures all the stages of the coaching process and thus, it differentiates from scales that focus only on perceived supervisory feedback. For instance, a scale that is commonly used to measure perceived supervisory feedback is the feedback category of the Job Characteristics Inventory (Sims, Szilagyi, & Keller, 1976; v. Appendix 8). As it may be observed, this scale focuses solely on whether the individual employee receives feedback from their superior on their progress and performance. It does not assess whether the supervisor involves the employee in the process, helps the employee with self-reflection and awareness and empowers the employee to set goals – behaviours, which are all part of the coaching process. Even a more elaborate scale that was developed by Jaworski & Kohli (1991; v. Appendix 8) and was divided into four categories (positive and negative output feedback, and positive and negative behavioural feedback) also focuses on whether the manager conveys to the employee their assessment of the latter's situation and performance without incorporating behaviours from the other stages of the coaching process. Critically reflecting on this, the difference in focus is substantively meaningful, since feedback is but one of the constituent parts of the coaching process.

Hence, taking all the above into consideration, Smither et al.'s (2003) scale was adopted in order to assess the effectiveness of a manager as a coach. Sample items include: 'Helping you interpret your feedback results by asking questions to uncover reasons for the feedback' and 'Offering you useful suggestions, advice, or insights to set goals for development'. The responses were measured on a seven-

point scale ranging from 1 (=very ineffective) to 7 (= very effective). Cronbach's alpha reliability was α = .94 (UK sample α = .95, Greek sample α = .92).

Information sharing: This construct was measured using the first dimension of the Internal Social Capital scale developed by Leana & Pil (2006). Information sharing captures the structural dimension of social capital and it is measured using a 6-item instrument. Sample items include: 'Employees engage in open and honest communication with one another' and 'Employees at this organisation keep each other informed at all times'. The responses for all three dimensions were measured on a seven point Likert scale ranging from 1(=strongly disagree) to 7 (=strongly agree). Cronbach's alpha reliability was α = .85 (UK sample α = .87, Greek sample α = .80).

The quality of leader-member exchange (LMX): LMX was measured using the 7-item LMX scale validated by Scandura & Graen (1984). Sample items include: 'How would you characterize your working relationship with your immediate supervisor?' and 'How well do you feel that your immediate manager recognizes your potential'. The scale was measured on a four point scale ranging from 1 to 4, where '1' denotes a low quality of exchange and '4' denotes a high quality of exchange with the supervisor. Cronbach's alpha reliability was α = .93 (UK sample α = .96, Greek sample α = .82).

4.6.3 Team manager questionnaire

The 45-item questionnaire contained validated scales that measured the following constructs: manager's ratings of the job performance of each team member and manager's learning goal orientation. It also contained other scales (such as performance goal orientation, job satisfaction and turnover intention), which are not listed below due to the fact that they do not form part of the conceptual model and hypotheses development.

Individual job performance: This construct was measured using Williams & Anderson's (1991) scale of in-role (task) performance. Sample items of the 5-item scale include: 'Adequately completes assigned duties'; 'Fulfils responsibilities specified in job description' and 'Meets formal performance requirements of the job'. The responses were measured on a seven point Likert scale ranging from 1(=strongly disagree) to 7(=strongly agree). Cronbach's alpha reliability was α = .88 (UK sample α = .90, Greek sample α = .81).

Manager's learning goal orientation: This construct was measured using the same scale used to measure employees learning orientation (see section 4.6.2). Cronbach's alpha reliability was α = .91 (UK sample α = .93, Greek sample α = .84).

4.6.4 Control variables

The last section of the questionnaire collected socio-demographic data, which may relate to the above constructs. Specifically the variables that were examined are: gender, age group, level of education, years in the organisation, years of occupancy, and years under the same line manager. Building on prior work that highlights the effects of these constructs on performance (Harrison, Price, Gavin, & Florey, 2002; Stoker, 2008) and self-development (Vesterinen et al., 2012), the purpose of collecting this information was to incorporate them as control variables in the data analysis so as to neutralise any effect they may had on the model's variable. Having elaborated on the measures employed in the questionnaires, the following part explicates the rationale behind the adopted data analytic techniques for the thesis.

4.7 Data analysis

The present section first discusses the selected techniques for the establishment of the reliability and validity of the measures, and thereafter, examines both the descriptive statistics employed and the type of correlation analysis used. In addition, diligent attention is paid to the justification of the use of hierarchical linear modelling as a method of hypotheses testing.

4.7.1 Establishing reliability and validity of measures

The first pivotal step in any empirical research is to ensure that the constructs under analysis are valid and reliable measures of the concepts under examination. Specifically, valid are those measures that represent the actual concept, while reliable are the measures which consistently produce similar values (Hair Jr., Black, Babin, & Anderson, 2014). Indeed, if the measures proved invalid or unreliable, the results of any further analysis would have proved meaningless. Thus, the researcher's primary concern was to establish reliability and validity of the measures, which was achieved on the one hand through the use of Cronbach's alpha reliability coefficient and on the other hand, through exploratory and confirmatory factor analysis.

4.7.1.1 Cronbach's alpha reliability

Coefficient alpha is the most widely used reliability statistic (Cortina, 1993). It has been developed by Cronbach (1951) and measures the internal consistency of a scale, that is, the "correlations among the items" (Streiner, 2003: 100). Hair Jr. et al. (2014) posit that establishing the reliability of the scales used in a study is prerequisite to validity assessment. Indeed, one first needs to ensure that the data were measured consistently across the entire sample and any measurement error was random rather than systematic before establishing that the items measured what needed to be measured. Acceptable levels of reliability usually account for values larger than .7, nevertheless, for exploratory research values between .5-.6 are considered sufficient (Kaplan & Saccuzzo, 1982; Nunnally, 1967).

4.7.1.2 Exploratory and confirmatory factor analysis

Convergent and discriminant validity was established through both exploratory (EFA) and confirmatory factor analysis (CFA). According to Schumacker & Lomax (2004), given a satisfactory ratio between the sample size and the items of the survey, CFA is preferred to EFA due to the fact that the scales utilised in the research project have been previously validated. CFA uses structural equation modelling (SEM) to examine whether the items of an already validated measure load on a specific construct (factor). Due to the fact that SEM enables analysis of latent factors, it enables the consideration, also, of measurement error and thus, increases the accuracy of the estimations (Hair Jr. et al., 2014). Nevertheless, according to recommendations provided by Bentler & Chou (1987), the minimum ratio of a sample size to the number of items is 5:1, that is, five observations for each item of the questionnaire. Taking into consideration that 36 items would be used for the CFA model under investigation, the minimum recommended sample size is 180 observations. In this regard, the final sample size of the study accounted for 191 observations and therefore, met only marginally the lower acceptable ratio requirements. However, as discussed above, listwise deletion rendered an overall sample size of 176 participants and thus, EFA was also employed to complement the analysis of convergent and discriminant validity.

With regard to the CFA, model assessment, or otherwise how well the model fitted the data, was established through the use of Goodness of Fit Statistics. Specifically, the chi-square (χ^2) statistic was used to assess whether "the covariance matrix and mean vector in the population are equal to the model-implied covariance matrix and mean vector" (Geiser, 2013: 45), which forms the null hypothesis. A

significant χ^2 indicates that the covariance matrix and mean vector in the population are significantly different to the covariance matrix and mean vector of the specified model and thus, that the model does not fit well to the data. On the other hand, an insignificant χ^2 fails to reject the null hypothesis and indicates a good fit of the model. While χ^2 is widely used, it has been criticised as producing biased results due to a large/small sample size or non-normal data (Byrne, 2012) and thus, additional Goodness of Fit statistics were employed to assess the fit of the model. Prior to discussing these statistics, it is worth mentioning that the author employed Maximum Likelihood (ML) as the estimation method. ML is widely used (Yuan & Bentler, 2000) and the default M-PLUS 7 estimator method (Muthén & Muthén, 1998-2012).

Regarding the rest of the Goodness of Fit statistics, the Comparative Fit Index (CFI; Bentler, 1990) and the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973) are incremental indices. Specifically, they compare how well the specified model fits to the data in comparison to the independence model, that is, a model in which no relationships exist between variables (Geiser, 2013). Further, the Root Mean Square Error of Approximation (RMSEA; Steiger & Lind, 1980) and the Standardized Root Mean Square Residual (SRMR) are additional goodness of fit statistics, which measure the absolute fit of a model, that is, no comparisons between models are made. A well-fitting model renders values below the cut-off point of .5 for both measures. It is worth mentioning that Steiger (1990) recommended the use of confidence intervals for the RMSEA statistic. Finally, AIC is an additional Goodness of Fit statistic, which is used for the comparison of different models specified by the researcher. Thus, its use is substantive only when two or more models are under examination and the model with the smallest value is the one with the better fit to the data.

EFA was implemented using Maximum Likelihood (ML) as an extraction method with Promax rotation. ML was preferred to Principal Component Analysis due to the fact that the overall aim was to identify the latent factors on which the various items loaded. Further, Promax rotation was selected as rotation method, since the items were expected to correlate with each other. The author also used the Keiser-Meyer-Olking measure and Bartlett's test of sphericity to assess the suitability of the sample for EFA. Specifically, values of above .5 for the Keiser-Meyer-Olking measure are considered acceptable for sampling adequacy (Kaiser, 1974), while a significant test of sphericity indicates that the correlations between the items are sufficiently large for EFA to be meaningful. Finally, applying the strict recommendations of Osborne & Costello (2004), only items with factor loadings of above .50 were retained.

Having established that the measures were valid, the following part elaborates on multigroup CFA that was conducted to demonstrate measurement invariance.

4.7.1.3 Multigroup CFA

As discussed in 4.3.1, having adopted an etic approach and collected data from two different countries, it is requisite to showcase that respondents from the two different populations give the same meaning and significance to the items of the questionnaire. This may be assessed with the help of measurement invariance testing, which according to Horn & McArdle (1992: 117) examines "whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute". In other words, notwithstanding that the abovementioned CFA and EFA enable the examination of the validity of the factorial structure of a single sample, it is important to exhibit whether participants from the two different countries have answered the questionnaires in a similar fashion. Indeed, ignoring measurement equivalence threatens cross-cultural comparability, and thus, applicability and generalizability of the findings (Durvasula, Netemeyer, Andrews, & Lysonski, 2006; Little, 1997; Steenkamp & Baumgartner, 1998; Steinmetz, Schmidt, Tina-Booh, Wieczorek, & Schwartz, 2008). Thus, it was deemed essential to also conduct multigroup CFA in order to establish measurement invariance – construct validity (Little, 1997) and dimensionality (Durvasula et al. 2006) – of the measures in both countries. Specifically, conducting multigroup CFA to test for measurement invariance entails, firstly, construction of a baseline model, in which all parameters are set free, and secondly, comparison of the baseline model with nested models, in each of which one additional parameter is constrained. These comparisons assess whether the nested models are not significantly different from the baseline model when constraining the factor loadings, intercepts, and residual variances in an additive fashion (Byrne, 2012; Geiser, 2013; Steinmetz et al., 2008; Van de Schoot, Lugtig, & Hox, 2012). The following section deals with the use of descriptive statistics.

As discussed above, the ratio between the sample size and the number of observations only marginally satisfied the lower requirements to perform a CFA. Moreover, Bentler & Chou (1987) argued that the more sophisticated is a model the bigger the ratio needs to be in order to avoid convergence issues and borderline solutions, including the Heywood case. In this regard, item parcelling has been proposed as a remedial technique to increase the ratio observations to sample size (Bandalos & Finney, 2001) and hence, allow the examination of more elaborate models, such as those employed in multigroup CFA.

Item parcelling is the technique by which a number of indicator variables are grouped (parcelled) into composite indicators (Hair Jr. et al., 2014) and has been found not only to rectify issues arising from a small sample size, but also to improve the stability of the parameter estimates (Bandalos & Finney, 2001) and to reduce measurement error (Bagozzi & Heatherton, 1994). Nevertheless, unless the dimensionality of the constructs is assessed, item parcelling may result in biased results (Little, Cunningham, Shahar, & Widaman, 2002). Thus, it is highly recommended for any research that utilises item parcelling to discuss and demonstrate the dimensionality of the constructs used (Bagozzi & Heatherton, 1994; Bandalos & Finney, 2001; Little et al., 2002). However, despite a compelling need for dimensionality assessment, current HRM research is lacking in this area. According to Williams & O'Boyle's review (2008) only eight out of 27 HRM articles, which had used item parcelling, examined the dimensionality of the scales. Taking all the above into consideration, it was deemed essential to test for dimensionality prior to conducting multigroup CFA in order to ensure impartiality of results and in addition, to contribute to the academic literature for more robust HRM empirical research.

The examination of whether a scale is unidimensional or multidimensional involves testing whether the items of a specific scale load on one or more factors respectively (Hair Jr. et al., 2014). Exploratory factor analysis has been proposed as one of the most prevalent methods for testing scale dimensionality (Conway & Huffcutt, 2003; Landis, Beal, & Tesluk, 2000; Reise, Waller, & Comrey, 2000). While there are various types of factoring, maximum likelihood (ML) was employed due to the fact that little is known regarding the specific and error variance of the data and that the overall aim is to identify the latent factors on which the various items load (Hair Jr. et al., 2014). As it has been highly recommended in the literature (Glorfeld, 1995; Hayton, Allen, & Scarpello, 2004; Zwick & Velicer, 1986), the final decision on whether the scales were unidimensional or multidimensional was made taking into consideration the results from Parallel Analysis. The latter is a factor retention method that was developed by Horn (1965) and generates results by producing normal random samples, which are then compared (paralleled) to the collected data.

Having established whether the scales were unidimensional or multidimensional, the study proceeded with item parcelling. Thereupon, the parcels were used to conduct mulltigroup CFA and establish measurement invariance. The following section discusses descriptive statistics.

4.7.2 Descriptive statistics

Descriptive statistics, usually, provide researchers with an initial indication of whether the collected data suggest any demographic trends and the extent to which the data transmit a focused message (Bee & Bee, 2003). In management research it is common to present a table with the arithmetic mean and the standard deviation of the variables under examination due to the fact that both statistics are used as a basis in most of the more sophisticated analytic techniques (Langdridge & Hagger-Johnson, 2013). Hence, their inclusion increases the replicability of the findings. The subsequent section elaborates on the adopted correlation analysis technique.

4.7.3 Pearson's correlation coefficient

Pearson's Correlation Coefficient is used to examine the direction and the strength of interrelatedness between two variables (Asthana & Bhushan, 2007). Under this line of reasoning, it may provide a preliminary assessment of the hypotheses under investigation. Specifically, it may indicate a positive, negative or no relationship between two variables and provide further support for a hypothesised relationship. Nevertheless, correlations need to be interpreted with caution, since a correlation does not infer causality and the existence of boundary conditions or an intermediate variable that correlates with either the variables under examination may render spurious results. Despite the disadvantages, correlation coefficients are used as a basis for conducting more advanced multivariate techniques, such as structural equation modelling (Fornell & Larcker, 1981; Weston & Gore, 2006) and meta-analyses (Diener, Hilsenroth, & Weinberger, 2009; Field, 2001). Indeed, Pearson's Correlation Coefficient is widely used in research due to the fact that it is a standardised statistic that may take values between -1 and 1, which enables comparison of different research findings and thus, contributes to the generalizability and replicability of the results. The next section discusses hierarchical linear modelling as the adopted method for hypothesis testing.

4.7.4 Hierarchical linear modelling

Multiple linear regression analysis, as a widely used statistical technique, could have been used to examine the hypothesised relationships. Nevertheless, Chou, Bentler, & Pentz (2000) explain that when data are collected from two different levels within the same context, they are not independent of each other and the data structure is hierarchical. In the case of the present research, the data were collected at the individual and team level. This means that the responses from employees of one team

(within group) were expected to correlate higher than the responses given from employees from other groups. Chou et al. (2000) argue that this violates two (of the four) basic assumptions for multiple regression models, these of homoscedasticity and independence; and thus, another method of analysis, which takes into consideration the hierarchical structure of the data, is needed.

Taking the above into consideration, the study adopted Hierarchical Linear Modelling (HLM) as a statistical computing program and technique (Raudenbush & Bryk, 2002). HLM enables the estimation not only of individual effects controlling for nested data, but also of cross-level effects (ibid). While structural equation modelling (SEM) appears as an alternative multivariate statistical technique that may also be used for the examination of multilevel frameworks, both methods have been found to report similar results (Tomarken & Waller, 2004; Wendorf, 2002). Thus, due to the fact that HLM is considered the most widespread multilevel modelling technique (Hitt et al., 2007) and that it enables the adoption of a piecemeal approach, it was preferred to SEM, which may trigger estimation problems (Tomarken & Waller, 2004).

Drawing on the above, it may be argued that the previous data analytic techniques helped to establish validity and reliability of the measures, and to facilitate the replicability and generalizability of the findings. In turn, HLM, as a statistical technique for hypotheses testing, contributed to the examination of the main research aim of the thesis and the subsequent research questions, which entailed the empirical examination and substantiation of the antecedents and consequences of effective managerial coaching for knowledge workers. The following section elaborates further on the research quality criteria and the necessity for valid, reliable, generalizable and replicable findings.

4.8 Meeting the research quality criteria

According to Bryman (2008), a research design constitutes a framework for knowledge generation, which could be evaluated by certain criteria. In regards to quantitative research, these criteria consist of measurement, causality, generalisation and replication (ibid) and are examined thoroughly below.

Measurement enables a researcher to portray tenuous differences in the relationships under investigation; it facilitates the comparison of findings from diverse studies and offers a basis for further estimates about the degree of the relationships observed (ibid). Lee & Lings (2008) argue that the quality of measurement is assessed

in terms of the reliability and validity of the measures. In terms of reliability, following Yin's (2013) argument, the researcher operationalized the procedure in the highest degree possible, in order to ensure the replicability of the study. In addition, internal reliability has been ensured by acquiring Cronbach's α of above 0.80 for all the scales (v. section 4.6). This denotes that the indicators of each scale are coherent (Bryman, 2008). Further, validity has been ensured in the following ways. Firstly, all the scales employed have been already empirically validated. Secondly, as discussed above, translation-back-translation procedures were employed in order to conduct the survey in the Greek language in MachineCo, which ensured that the language did not consist an impediment in understanding the actual meaning of the items (Frank-Stromborg & Olsen, 2004). Thirdly, CFA was employed and the analysis exhibited that the initially hypothesised model of seven factors achieved a significantly better fit than the rest of the models (v. section 5.2.1).

Regarding causality, quasi-experimental designs are considered stronger than cross-sectional studies in their ability to establish causal directions between the variables. Hence, since the present study is cross-sectional, it offers limited verification that the independent variables cause the identified variation in the dependent variables and not the other way around. In order to tackle this limitation, the researcher draw on previous research, according to which LMX (e.g. Bezuijen, Van Dam, Van den Berg, & Thierry, 2010; Scaduto et al., 2008) and LGO (e.g. Fisher & Ford, 1998; Ford, Weissbein, Smith, & Gully, 1998; Schmidt & Fort, 2003) are significant antecedents of the effectiveness of developmental interventions, while coaching in general is a significant predictor of employees' work outcomes (e.g. Butterworth, Linden, McClay, & Leo, 2006; Carson, Tesluk, & Marrone, 2007; Liu & Batt, 2010; Peecher, Piercey, Rich, & Tubbs, 2010; Tews & Tracey, 2008; Xanthopoulou et al., 2009). Further, the study is able to verify the existence of certain associations among the variables and in addition, via mediation testing, to attain to a certain extent one of the aims of scientific enterprise, that is, the provision of justification for a social phenomenon (Bryman, 2008).

Generalisation constitutes a prominent concept in scientific research, since it enables the applicability of the results in diverse contexts and subsequently, offers the possibility of predictions (Lee & Lings, 2008). In order for the results of a study to be generalised or externally valid, the sample of participants should be representative (Bryman, 2008). In this regard, the researcher was given access to 50% of the managerial personnel in MachineCo, 100% of the personnel in ConsumerCo, and 30% in ProfessCo Given the study's sampling frame, the participants are

representative of the knowledge workers of the three participant companies; yet, not of the general population. Hence, generalisation of the results is rather perilous. Be that as it may, aim of the thesis is to achieve a better understanding of the research questions and hence, use the findings as instrumental type of cases (Stake, 1995) that may offer useful and constructive suggestions to similar type of organisations.

Regarding the last criterion, Bryman (2008) argues that replicability is more important than the actual replication of a research study. Specifically, the present thesis explicates the methods that were adopted to acquire the data and in particularly, the scales used, the participant population and the way in which the questionnaires were distributed. Further, the researcher provides explicit information regarding the employed data analytic techniques, including the statistical packages used. In doing so, the aim of the researcher is to add more objectivity and hence, remove any personal values and bias from the research design (ibid). Under this line of reasoning, the study is easily replicable. The following section elaborates on the procedures that took place in order to ensure that the study was conducted in a responsible and ethical way.

4.9 Ethical issues

As far as the ethical issues are concerned, the research was adjusted to Aston Business School (ABS) research ethics guidelines and processes (2011), to the CIPD's general Code of Professional Conduct (CIPD, 2011) and to the key principles of the Framework for Research Ethics (FRE) published by ESRC (2010). Easterby-Smith, Thorpe, & Jackson (2012) recognise two major categories of ethical issues, these that emanate when participant observation takes place, and these that concern the collection, control and use of data. Taking into consideration that no participant observation took place, this part elaborates on the ethical issues related to the latter category. Firstly, a risk-benefits analysis is conducted for the research project. Thereupon, the informed consent and selection of participants are discussed. Further, the confidentiality and anonymity of the data are examined, as well as the way in which the collection, storage and analysis of the raw data was secured. Finally, any additional actions taken that were related to conducting research outside the UK are expounded.

4.9.1 Risk/anticipated benefit analysis

According to the FRE of ESRC (2010: 21), 'risk is often defined by reference to the potential physical or psychological harm, discomfort or stress to human participants that a research project might generate'. Taking into consideration the content of the questionnaire, which the participants were asked to complete voluntarily, no physical or psychological harm was caused. However, the fact that some questions asked the participants to rate other colleagues (other subordinates or superiors) may imply that some participants could have felt discomfort in doing so. For this reason, the principal investigator took action and composed a thorough cover letter (v. Appendix 7.2) elaborating on the confidentiality of the data, the coded questionnaires, and also on the right of the participants to withdraw from the survey at any given time without any loss or penalty. Further, the cover letter provided the participants with the researcher's contact information, in case they would have liked to discuss any particular issue regarding the research. Moreover, the researcher took further action to reduce any possible discomfort by designing a questionnaire that needed minimum effort to be completed by the participant, that is, participants were able to answer all the items in less than 15 minutes. In very few cases where the manager had to comment on more than four direct reports, the questionnaire may have taken up to 25 minutes to be completed.

With regard to the researcher, there was no risk involved in conducting the survey. Specifically, the survey was voluntary and thus, the respondents participated in the research after giving their consent (v. Appendix 7.3). In addition, the targeted participants were knowledge workers; that is, white collar employees working in an office. Thus, the researcher did not face any physical risk (e.g. from machinery, lab experiments) when visiting the premises of the organisations, either for meetings with the management or to distribute the hard copies of the questionnaires.

Over and above the actions taken for achieving no or minimum risk, manifold benefits are associated with the project, of which employees could take advantage in the future. Specifically, the research examines whether effective managerial coaching increases important work-related outcomes, such as employee performance, and information sharing. A verification of the above relationships may result in organisations investing heavily in effective coaching initiatives. The latter may not only be positively related to employees' performance, but it may also improve the manager-employee relationship by offering better understanding regarding the employees'

learning and development. The following section elaborates on the participants'
informed consent.

4.9.2 Informed consent

According to ESRC FRE (2010: 28), 'informed consent (…) entails giving
sufficient information about the research and ensuring that there is no explicit or
implicit coercion (…) so that prospective participants can make an informed and free
decision on their possible involvement'.

In order to comply with the ESRC FRE (2010), the principal investigator
composed a cover letter, which was e-mailed to the participants through the HR or
L&D manager of the organisation, so as to inform them regarding their voluntary
participation in the research study. Specifically, the cover letter explained the
procedure, while some background information was also provided (v. Appendix 7.2).
Firstly, the researcher elaborated on the fact that a survey would take place, as part of
a wider research on employees' learning and development. The cover letter clarified
that the research fell into the requirements of the PhD, which was pursued by the
principal investigator (the author). Secondly, specific details were given in the cover
letter regarding the reason behind this and the benefits from participating in the
research. Thirdly, as discussed above in section 4.3.3, the principal investigator
explicated any potential risks and how these would be overcome by highlighting
issues, such as confidentiality and anonymity of responses and the right of
participants to withdraw at any time with no penalty. Lastly, the cover letter stated the
overall time that it would take participants to complete the survey and their right to
make any amendments after the completion of the survey. Having expanded on the
participants' informed consent, the next section discusses the selection of participants.

4.9.3 Selection of participants

Taking into consideration the requirements of the research for multisource
data, data needed to be collected from employees within a team and, also, their
respective managers. In addition, the research design necessitated substantial
amount of participants in order to achieve satisfactory statistical power. Thus, the
research involved the whole organisation as far as the participants were knowledge
workers from entry to middle level. This choice was made due to the fact that the
conceptual framework has been theoretically developed to benefit more white-collar
than blue-collar employees and more entry to middle level personnel than senior
management.

Further, no discrimination took place in terms of gender, race, ethnicity or any other characteristics since the same terms and conditions were applied to any of the participants. Moreover, participants were adults, capable of making independent decisions, and thus, no specific assent process or documentation was necessary. Finally, the above conditions necessitated that all participants declared their consent. Due to the fact that the collection of a signature would have made the participants identifiable, they were advised in the front page of the questionnaire that by completing the questionnaire, they were giving their consent to the researcher to use the data for research purposes. The next part discusses more specifically about confidentiality and anonymity of the data.

4.9.4 Confidentiality and anonymity

Confidentiality and anonymity are two major concerns of every single social research study. The former concept "involves the management of private information" (Giordano, O'Reilly, Taylor, & Dogra, 2007: 264), while the latter "describes the degree to which the identity of a message source is unknown and unspecified" (Scott, 2005: 243). With regard to the specific research study, confidentiality and anonymity were ensured by assigning a code to each participant and thereupon, storing the answers under each code. While the coded data may be shared with other researchers, the only person who has access to the file, that contains information regarding which code represents which participant, is the researcher. No other parties are envisaged to have access to the file. Moreover, for MachineCo, where the data were collected in hard copies, the author waited for the participants to complete the survey and hand it back to her in a sealed envelope, thus, ensuring privacy and confidentiality of the answers. The following section elaborates on the ways, in which the raw data were collected and stored.

4.9.5 Research plan for collection, storage and analysis of data

Due to the fact that Aston Business School is located in United Kingdom, the research lies in accordance with the principles embodied in UK Data Protection Act 1998. Specifically, as it has been stated above, those questionnaire responses that have been collected in hard copies will be kept stored in physical form for two years, following Aston University's guidelines. After this period, they will be scanned in electronic format, while the physical copies will be destroyed. In every occasion, access to the raw data is restricted to the researcher.

It is suggested that if the above are strictly followed, all risks regarding confidentiality and anonymity will be minimised. Nevertheless, ABS research ethics guidelines and processes (2011) necessitate the assessment of risk in the unlikely situation that a third party would access the raw data. Thus, several strategies need to be considered in order to ensure that the minimisation of harm from such an occasion. Specifically, the researcher has stored different parts of the data in different physical or electronic locations. For instance, 50% of the hard copies have been stored in a locked cupboard at the researcher's office and the remaining 50% have been stored at a locked shelf at the researcher's home. In this case, if someone managed to access the locked cupboard, he/she would not be able to access the locked shelf and thus, less harm would be caused. Further, after two years, the data will be scanned in electronic format: a strategy to minimise harm of possible access to the data is to divide the data collection in two or three different electronic accounts. In this case, if someone managed to access the first account, it would be highly unlikely to be able to access the other two accounts. Next, the section discusses additional actions taken as a result of conducting the study, also, in Greece.

4.9.6 Conducting research outside the UK

As it has been already discussed the research was conducted in organisations in Greece and the UK. Due to the fact that both countries are members of the European Union, the research should abide by the EU Data Protection Directive (1995) regarding the protection of individuals in terms of collection, processing and transfer of personal data. The specific directive is similar to ABS research ethics guidelines and processes. Nevertheless, a major point that was taken into consideration is that the directive necessitates that the data subjects have the right to access the information stored about them and modify anything they may find inaccurate. This principle refers mainly to the collection of socio-demographic data and the participants have been informed that they may access this information should they need to in the future.

4.10 Chapter summary

This chapter examined the methodological underpinnings of the present research project. Specifically, the research adopted a positivist perspective and an etic approach, while it employed a cross-sectional research design and quantitative data to examine the hypotheses. Data were collected from managers and their subordinates in Greece and the UK using a 45-item (for managers) and a 50-item (for subordinates)

questionnaire, while the target respondents were knowledge workers. All the measures used were already validated scales and achieved sufficient Cronbach's alpha reliability coefficients. With regard to the data analytic techniques employed, CFA was initially employed to confirm the factor structure of the already validated measures. Yet, given the small sample size, EFA was also used as a complimentary technique. Once it was established that all the scales were valid and reliable, and since the data were collected from multiple countries, multigroup CFA was, also, implemented in order to examine measurement invariance. This time, item parcelling was used as a remedial technique for the small sample size, which initially necessitated examination of the dimensionality of the scales used. Subsequently, descriptive statistics and correlations were employed in order to provide a first indication regarding the hypotheses and also, to increase the generalizability and replicability of the findings. In addition, due to the fact that the data were nested into teams and the framework highlighted the examination, also, of cross-level effects, the thesis adopted hierarchical linear regression, as the type of analysis to test the hypotheses. The chapter, also, elaborated on the research quality criteria and argued that the thesis attained quality of measurement and replication of results. Nevertheless, the chapter acknowledged that generalizability is limited only to similar type of organisations, while confidence over the causality of the examined relationships is low due to the fact that the study is cross-sectional. Finally, with regard to ethics, the research was conducted according to the ethical standards of Aston University, as well as ESRC and CIPD guidelines. Specifically, prior to the data collection, the author made provisions for the integrity, quality and transparency of the research. The respondents were fully informed regarding their options for participating in the survey and their right to withdraw at any point of time. Responses were confidential, in that participants were asked to provide only the initials of their names. Under no circumstances did the participants provide their full names. Although not strictly speaking anonymous (the research design required that respondents were allocated a code as a method of linking across individual employees and managers into their respective teams), individuals could not be identifiable at any stage, including final analysis and write-up. Throughout the process, the researcher emphasised her commitment to these good practice principles.

The following chapter elaborates on the findings of the data analytic techniques. Particular effort was exerted to explicate the step-by-step approach that was followed in order to establish the validity and reliability of the measures, while

specific attention was given to the testing of the hypotheses and the additional substantiation of the results with post hoc analyses wherever possible.

5. Findings

5.1 Chapter introduction

The present chapter expands on the results of the data analytic techniques employed with the aim to examine the hypotheses presented in third chapter. In this regard, it contributes to the research objectives of the thesis, firstly, for an empirical examination of the relationship between the characteristics of the coach, the coachee as well as of the context and the effectiveness of managerial coaching and secondly, for an evidence-based investigation of the effectiveness of the practice on important employee work outcomes. The overall aim is to provide answers to the research questions of the thesis regarding the antecedents and consequences of managerial coaching. Under this line of reasoning the chapter is organised as follows. Firstly, reliability and validity of the measures are established through EFA, CFA, multigroup CFA and Cronbach's coefficient alpha-scores. Thereupon, descriptive statistics and correlations are presented to enable replicability of findings and also, a preliminary assessment of the hypotheses. Thereafter, hierarchical regression analysis is employed to examine the antecedents and consequences of effective managerial coaching, including boundary conditions and mediation effects. Finally, post hoc analysis is employed to provide further support for the findings.

5.2 Reliability and validity of measures

In section 4.7.1, it was discussed that prior to conducting any data analytic techniques it is important to establish that the measures used are reliable and valid. Reliability was established with the estimation of Cronbach's Coefficient alpha – a summary may be found on Table 5.1. Validity was established with the use of both EFA and CFA. As explained in 4.7.1.2, multigroup CFA, which is a more elaborate type of analysis, was undertaken by adopting the remedial technique of item parcelling (since the sample size was only marginally adequate). In turn, item parcelling necessitated verification of the dimensionality of scales, which was attained with the employment of parallel analysis. The rest of this part elaborates on each technique as a step-by-step approach to establishing the validity of the measures.

TABLE 5.1

Summary of Cronbach's alpha coefficients of scales

	Total	UK	Greece
LGO	.84	.84	.85
Coaching	.94	.95	.92
Information Sharing	.85	.87	.80
LMX	.93	.96	.82
Task Performance	.82	.89	.69
LGO (manager's)	.91	.93	.84

Note: LGO = Learning Goal Orientation, LMX= the quality of exchange between the leader and the member.

5.2.1 Exploratory and confirmatory factor analysis

As discussed in 4.7.1.2, CFA employs structural equation modelling in order to confirm the factor structure of already validated measures (Byrne, 2012). The results from the initial CFA indicated a moderate fit to the data [$\chi^2(579)$ = 1023.24, CFI = .90, TLI = .89, RMSEA = .06 (.057, .070), SRMR = .06]. Given the sample size, the fit may be considered adequate; nevertheless, EFA was employed as a complimentary technique in order to further assess the factor structure and loadings of the items. In this regard, the Keiser-Meyer-Olking measure verified the sampling adequacy for the analysis, KMO = .82 ('excellent' according to Hutcheson & Sofroniou, 1999), and all KMO values for individual items were > .62, which is above the acceptable limit of .5 (Kaiser, 1974). Also, Bartlett's test of sphericity χ^2 (630) = 4360.76 was found significant at p < .001, indicating that correlations between items were sufficiently large for ML. EFA suggested that all factor loadings were above the strict cut-off point of .5 apart from item 5 of the task performance scale (= "Engages in activities that will directly affect his/her performance evaluation"), which loaded at .47 and thus, was excluded from the analysis. Further, two items of the same scale loaded on a separate factor, indicating that it consists of two dimensions.

With regard to the dimensionality of the scales, a preliminary analysis was run to obtain eigenvalues for each factor and found that seven had eigenvalues over Kaiser's (1960) criterion of 1 and in combination explained 64.57% of the variance. Appendix 7.6 exhibits the factor loadings after rotation. The items that clustered on the same factors suggested that factor 1 represented LMX, factor 2 managerial coaching, factor 3 manager's goal orientation, factor 4 task performance, factor 5 information sharing, factor 6 employee's LGO, and factor 7 task performance. The seventh factor consisted of an eigenvalue of 1.59 and explained 4.44% of total variance. Given that the scales used were six and also taking into consideration that there are more than

30 variables (= 36) and not all communalities are greater than 0.7, Kaiser's criterion may be inaccurate (Stevens, 2009) and thus, further examination necessitated the use of a scree plot (Figure 5.1). Indeed, the scree plot showed inflections that could justify retaining the 7th factor.

FIGURE 5. 1

Scree plot of factor extraction for the items of scales
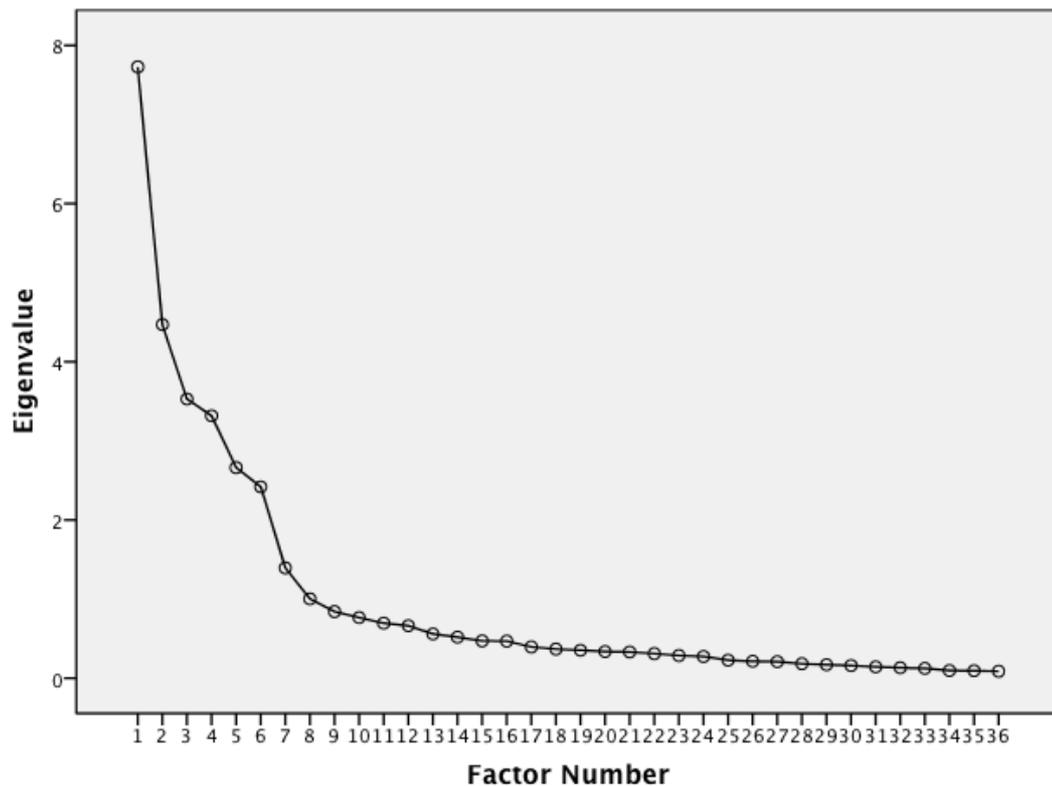
As discussed in 4.7.1.2, the most robust way to determine factor retention is the so-called parallel analysis technique (Zwick & Velicer, 1986). The analysis followed the procedure outlined in O'connor's (2000) article and used the syntax code provided. Principal axis factoring (PAF) and permutations of the raw data were used in the parallel analysis and the results revealed that seven eigenvalues of the raw data were larger than the 95th percentile of the eigenvalues of the random data and thus, seven factors (dimensions) were retained (v. Appendix 7.7). The retention strategy lies in accordance with recommendations by Hayton et al. (2004) and O'Connor (2000). Taking into consideration all the above mentioned, the author has provided substantive theoretical and methodological evidence on the identification of seven factors and thus, on the unidimensionality of all but one scale, that of task performance, which is comprised of two dimensions.

Given the central role of the scale of task performance in the thesis, it was deemed essential to examine the meaningfulness of the two dimensions. As it may be

seen in Table 7.4, the reversed coded items (item 6 = "Neglects aspects of the job he/she is obligated to perform" and item 7 = "Fails to perform essential duties" loaded on a second factor, while their loadings on the first factor were minimal (item 6 = .05 and item 7 = .02). Theoretically, this may be interpreted that task performance measured the following two dimensions: Firstly, the degree, to which an employee has achieved standards (as examined by the reverse-coded items) and secondly, the degree to which an employee has performed better than merely achieving standards. Taking into consideration that aim of the research project was to establish (and measure) a relationship between effective coaching and highly performing employees, it was decided to eliminate the second dimension of the task performance scale, i.e. items 6 and 7 of the scale.

Subsequently, having eliminated three items from the variables under investigation, reliability analysis and EFA were conducted once more to establish that the updated scale was internally consistent and that the rest of the items loaded well on the respective factors. As it may be seen in Table 5.2, the Coefficient alpha for the scale measuring task performance was improved with the removal of the three items (α = .92). The subsequent EFA was conducted using ML with Promax rotation, as above. All criteria were improved. Specifically, the Keiser-Meyer-Olking measure improved to KMO = .83 and all KMO values for individual items were > .71, which is above the acceptable limit of .5 (Field, 2009) and well above the previously minimum value of .62. Bartlett's test of sphericity χ^2 (528) = 4077, p < .001, indicated that correlations between items were sufficiently large for PAF. Six factors had eigenvalues over Kaiser's (1960) criterion of 1 and in combination explained 64.72% of the variance, while all factor loadings were above the strict cut-off point of .5 (see Table 5.3).

TABLE 5.2

Summary of Cronbach's alpha coefficients of scales (updated)

	Total	UK	Greece
LGO	.84	.84	.85
Coaching	.94	.95	.92
Information Sharing	.85	.87	.80
LMX	.93	.96	.82
Task Performance	.92	.90	.84
LGO (manager's)	.91	.93	.84

TABLE 5.3 Pattern Matrix

	Factor					
	1	2	3	4	5	6
LMX [Item 1]	.895					
LMX [Item 4]	.840					
LMX [Item 2]	.834					
LMX [Item 6]	.831					
LMX [Item 7]	.822					
LMX [Item 5]	.724					
LMX [Item 3]	.710					
Coaching [Item 3]		.908				
Coaching [Item 1]		.865				
Coaching [Item 2]		.848				
Coaching [Item 6]		.847				
Coaching [Item 4]		.837				
Coaching [Item 5]		.771				
Manager's LGO [Item 2]			.899			
Manager's LGO [Item 3]			.897			
Manager's LGO [Item 1]			.846			
Manager's LGO [Item 5]			.779			
Manager's LGO [Item 4]			.659			
Task Performance [Item 2]				.966		
Task Performance [Item 1]				.861		
Task Performance [Item 3]				.859		
Task Performance [Item 4]				.743	.	
Information Sharing [Item 1]					.822	
Information Sharing [Item 3]					.805	
Information Sharing [Item 2]					.726	
Information Sharing [Item 6]					.662	
Information Sharing [Item 5]					.622	
Information Sharing [Item 4]					.514	
LGO [Item 3]						.907
LGO [Item 1]						.806
LGO [Item 2]						.753
LGO [Item 5]						.620
LGO [Item 4]						.512

Note: Factor loadings over .50

Extraction Method: Maximum Likelihood.

Rotation Method: Promax.[a]

a. Rotation converged in 6 iterations.

In addition to the above, CFA was also conducted with the remaining 33 items and the results indicated a good fit of the model to the data [χ^2 (480) = 788.54, CFI = .93, TLI = .92, RMSEA = .06 (.051, .065), SRMR = .06]. Further, chi-square difference test demonstrated that the present model fits significantly better to the data than the initial one [$\Delta\chi^2$ (99) = 234.70, p < .001]. As a final step to demonstrate discriminant and convergent validity of the measures, the present model, which consists of six factors (employees' LGO, LMX, Coaching, Information Sharing, Task Performance, and team managers' LGO), was compared to possible nested models, which consisted of less than six factors. Specifically, the measurement model was compared to: (1) a five-factor model, which treated LMX and effective coaching as one factor, (2) a five-factor model, which treated team members' and line managers' LGO as one factor, (3) a four-factor model, in which LMX and coaching were treated as one factor, and team members' and line managers' LGO as another factor simultaneously, (4) a three-factor model, in which the factors in third model were kept as they were and additionally, information sharing, and task performance (as outcome variables) were treated as one factor, (5) a two-factor model, in which LMX, effective coaching, and team members' and line managers' LGO were treated as one factor, while information sharing, and task performance were treated as another factor, (7) a one-factor model, in which all the parcels loaded on only one factor. Table 5.4 provides a summary of the model comparison.

The chi-square difference tests revealed that the hypothesised six-factor model achieved a significantly better fit than the rest of the models. Relatedly, only for the six-factor model the values of the Goodness of Fit statistics were at an acceptable high level, while the comparative AIC statistic produced the lowest value for the measurement (six-factor) model. All the above congruent results provide substantial justification for the discriminant and convergent validity of the model.

Having established that the scales are both reliable and valid, the following section elaborates on multigroup CFA that was conducted to demonstrate measurement invariance.

TABLE 5.4 Confirmatory factor analysis results for hypothesised variables

Model	χ^2	$\Delta\chi^2$	df	Δ df	CFI	TLI	RMSEA	SRMR	AIC
Model1: Six-factor	788.54	-	480	-	.928	.920	.058 [.051, .065]	.057	14766.685
Model 2: Five-factor-a	1537.55	749.01***	485	5	.753	.731	.107 [.101, .113]	.103	15505.699
Model 3: Five-factor-b	1407.97	619.43***	485	5	.783	.764	.100 [.094, .108]	.103	15378.116
Model 4: Four-factor	2156.66	1368.12***	489	9	.608	.577	.134 [.128, .139]	.134	16118.804
Model 5: Three-factor	2708.17	1920.63***	492	12	.479	.441	.154 [.158, .159]	.155	16863.317
Model 6: Two-factor	3104.30	2315.76***	494	14	.387	.345	.166 [.161, .172]	.167	17054.446
Model7: One-factor	3470.74	2682.2***	495	15	.301	.255	.177 [.172, .183]	.178	17418.887

Note: ***$p < .001$

5.2.2 Multigroup confirmatory factor analysis

The aim of the multigroup analysis was to establish that both Greek and British participants responded in a similar fashion to the items of the questionnaire. As discussed in section 4.7.1.3, measurement equivalence is a *sine qua non* for cross-cultural research. Given that the minimum 5:1 ratio of sample size to number of items was only marginally achieved and taking into consideration that sophisticated models necessitate a bigger than the minimum ratio (Bentler & Chou, 1987), item parcelling was adopted as a remedial technique to increase the ratio of observations to sample size (Bandalos & Finney, 2001). In section 4.7.1.3, it was discussed that it is highly recommended to examine the dimensionality of the scales before applying item parcelling due to the fact that different techniques are appropriate for multidimensional and unidimensional scales. In this regard, all the scales under examination were unidimensional, and thus, following the recommendations by Landis et al. (2000) and Little et al. (2002), random assignment of items to parcels was employed. Specifically, six-item scales were divided into three parcels, which contained two randomly assigned items per se. The LMX scale, which comprised seven items, was divided into three parcels, two of which consisted of two items and one of which consisted of three items. Finally, five-item scales were divided into two parcels, of which one contained two items and the other contained three items. Table 5.5, summarises the random assignment of the items to parcels, which were used to conduct multigroup CFA.

TABLE 5.5

Summary of the parcelling procedure of the Items

Construct	Parcels	Items
Learning Goal Orientation (E)		
	elgo1	1, 4
	elgo2	2, 3, 5
Effective Coaching		
	co1	1, 4
	co2	2, 3
	co3	5, 6
Leader-Member Exchange		
	lmx1	1, 3
	lmx2	2, 4, 5
	lmx3	6, 7
Information Sharing		
	is1	1, 3
	is2	2, 6
	is3	4, 5
Task Performance		
	tp1	2, 3
	tp2	1, 4
Learning Goal Orientation (M)		
	mlgo1	1, 5
	mlgo2	2, 3, 4

Note: (E) = employee, (M) = manager

A baseline model was used to conduct CFA for the whole sample, which rendered a very good fit to the data [χ^2 (75) = 90.33, CFI = .99, TLI = .99, RMSEA = .03 (.00, .05), SRMR = .04]. Table 5.6 summarises the standardised loadings and the average variance extracted (AVE) for each parcel per se. As it may be observed, the standardised loadings and AVEs exceeded the recommended minimum values of .7 and .5 respectively (Bagozzi & Yi, 1988); thus, demonstrating construct validity of the item parcels.

Table 5.6
Summary of the factor loadings and AVE for each indicator of the constructs

Construct	Standardized Factor Loadings	AVE
Learning Goal Orientation (E)		.72
elgo1	.77	
elgo2	.92	
Effective Coaching		.84
co1	.93	
co2	.95	
co3	.87	
Leader-Member Exchange		.79
lmx1	.89	
lmx2	.89	
lmx3	.88	
Information Sharing		.64
is1	.85	
is2	.82	
is3	.73	
Task Performance		.80
tp1	.95	
tp2	.83	
Learning Goal Orientation (M)		.87
mlgo1	.96	
mlgo2	.90	

Note: (E) = employee, (M) = manager

Sequentially, multigroup CFA was undertaken and Table 5.7 exhibits the Goodness of Fit statistics for the various models employed. As explained in 4.7.1.3, ML was adopted as a parameter estimator, and thus, chi-square difference test statistic was employed to assess whether the configural model was significantly different to the subsequent metric, scalar and residual invariance models. British participants served as the reference group. Following Byrne's (2012) recommendations, the baseline CFA model that was used to assess the above standardised loadings and AVE was also employed to test whether the Greek and the UK sample per se fit well to the data (baseline models for Greek sample and UK sample). Indeed, Table 5.7 depicts that the baseline models for each group rendered a good fit without incorporating any additional specifications or adjustments. Thereupon, an initial model was specified in order to assess configural variance, that is, "the same number of factors in each group and the same pattern of fixed and free parameters" (Steinmetz et al., 2008: 603). The loadings of the first item for each factor were fixed to 1, while the factor means were fixed to 0. The configural model achieved

a good fit [χ^2 (150)=192.77, RMSEA = .054 (.027, .075), CFI = .978, TLI = .969, SRMR = 0.055, and AIC = 7359.444] and served as the comparison model for the following nested models.

The first nested model assessed full metric invariance and the analysis revealed that it was not significantly different from the configural model. Thereafter, Model F examined full scalar invariance; yet, it resulted in a significant decrease in fit in comparison to the metric model [$\Delta\chi^2$(15) = 102.71, p < .001]. After examination of the modification indices (MI), one factor loading (lmx2) and five intercepts were freed (is1, lmx3, is3, elgo1, co3), which resulting in Model G not being significantly different to the metric model [$\Delta\chi^2$(8) = 15.46, p > .05], thus, achieving partial scalar invariance. Finally, Model H tested for residual invariance, which was significantly different to Model G. Similarly to the above procedure, MI were consulted and eight residual variances (is1, is2, tpm2, lmx1, lmx 2, co1, co3, mlgo2) were freed in Model I, which tested for partial residual invariance and was not found significantly different to the partial scalar model. Taking the above into consideration, configural invariance, metric invariance, partial scalar invariance and partial residual invariance established partial measurement invariance, which is considered adequate for further multi-group analyses (Byrne, Shavelson, & Muthén, 1989). Table 5.7 summarises the chi-square difference tests and the Goodness of fit statistics for the aforementioned models.

Having established reliability, validity and partial measurement invariance, the following part proceeds to the calculation of descriptive statistics and correlations.

TABLE 5.7 Multigroup confirmatory factor analysis results for hypothesised variables

Model	Model Description	χ^2	$\Delta \chi^2$	df	Δ df	CFI	TLI	RMSEA	SRMR	AIC
	Baseline									
A	Baseline for both	90.335	-	75	-	.992	.989	.032 [.000, .054]	.037	7597.719
B	Baseline for Greece	92.332	-	175	-	.978	.969	.050 [.000, .081]	.059	3225.869
C	Baseline for the UK	100.438	-	75	-	.978	.970	.058 [.021, .085]	.051	4133.575
	Measurement Invariance									
D	Configural	192.77	-	150	-	.978	.969	.054 [.027, .075]	.055	7359.444
E	Metric	210.46*	7.69	159	9	.974	.965	.057 [.034, .077]	.073	7359.131
F	Scalar	313.17***	102.71***	174	15	.929	.914	.090 [.074, .106]	.103	7431.844
G	Partial Scalar	225.92***	15.46	168	8	.970	.963	.059 [.037, .078]	.079	7356.593
H	Residual Invariance	308.93***	83.01***	183	15	.936	.926	.084 [.067, .100]	.145	7409.601
I	P. Residual Invar.	237.576	11.656	175	7	.968	.962	.060 [.039, .079]	.092	7354.251

Note: *p < .05, ***p < .001

5.3 Descriptive statistics and correlations

Table 5.8 displays means, standard deviations and zero-order correlations. At the individual level, the quality of managerial coaching was found to significantly correlate with LGO ($r = .25$, $p < .01$) and LMX ($r = .42$, $p < .01$), providing preliminary support for Hypotheses 1 and 2. In addition, it was also found to significantly correlate with task performance ($r = .13$, $p < 0.05$) and information sharing ($r = .24$, $p < .01$); thus, offering initial support for hypothesis 5 and 6 respectively. Further, the control variable measuring duration of position tenure (in years) was found to negatively correlate with coaching ($r = -.15$, $p = .05$) and to positively correlate with task performance ($r = .27$, $p = .01$).

With regard to the team-level variables, the average quality of coaching delivered in a team was found to significantly and positively correlate with the average team task performance ($r = .22$, $p < .05$), providing preliminary support for hypothesis 8. It is worth mentioning that the dummy control variables ConsumerCo and ProfessCo (with MachineCo as the baseline group) were found to significantly correlate ($r = .22$, $p < .05$ and $r = -.50$, $p < .01$ respectively) with the average team task performance. These correlations denote that 22% and 50% of the variation in average team task performance scores account for membership in the MachineCo instead of membership in ConsumerCo and ProfessCo respectively. Such differences, although expected among organisations, offer additional justification for their inclusion as control variables in the subsequent hypotheses testing.

Table 5.8 Means, standard deviations and correlations of variables

Variables	M	s. d.	1	2	3	4	5	6
<u>Individual level</u>								
1. Gender	0.58	0.50						
2. Pos.Ten.	3.76	3.80	-.06					
3. LGO	6.06	0.73	.04	-.02				
4. LMX	22.30	5.28	.04	-.05	.14*			
5. Effective M. Coaching	5.51	1.16	-.05	-.15*	.25**	.42**		
6. Information Sharing	4.67	1.11	.01	-.11	.09	.16*	.24**	
8. I. Performance	6.04	0.89	-.13*	.27**	.04	.03	.13*	-.04
<u>Group level</u>								
1. ConsumerCo	.25	0.44						
2. ProfessCo	.28	0.45	-.36**					
3. M. LGO	6.11	0.92	-.13	-.11				
4. Team-average Coaching quality	5.52	0.85	-.02	.13	.11			
5. T. PERF.	6.10	0.74	.22*	-.50**	.12	.22*		

Note: 1.Pos.Ten. = Position Tenure; LGO = employees' Learning Goal Orientation; LMX = Leader-Member Exchange; I. Performance = Individual Task Performance; M. LGO = Manager's LGO; Average T. PER. = Team task performance
2. MachineCo used as the baseline group for dummy variables ConsumerCo and ProfessCo
*p < .05, **p < .01

5.4 Hypotheses testing

The present section explicates the procedure that was followed in order to test the hypotheses of the thesis and thus, to provide support for the conceptual framework developed in chapter 3. Indeed, in line with the research questions of the thesis, hierarchical linear modelling was employed in order to examine the antecedents and consequences of managerial coaching. Specifically, the section, firstly, assesses the relation of employees' LGO, managers' LGO and the quality of LMX to the effectiveness of managerial coaching. Secondly, it investigates the consequences of effective managerial coaching on important work outcomes. The analysis of the consequences is divided into two sub-sections: the first examines the relation of effective managerial coaching to employees' task performance, while the second assesses the relation of effective managerial coaching to information sharing. Finally, the section assesses the mediating role of both managerial coaching between the quality of LMX and information sharing, and also the mediating role of information sharing between managerial coaching and individual task performance.

5.4.1 Multilevel analysis process

According to Hitt et al. (2007), the level of analysis for hypotheses testing needs to correspond to the level of theory and measurement. Given that the author theorised and also, collected data at the individual (e.g. LGO, LMX, Information sharing) and the team level (e.g. line managers' LGO), the adoption of random coefficients modelling performed using Hierarchical Linear Modelling (HLM; Raudenbush, Bryk, & Congdon, 2010) is justified. Nevertheless, the author also calculated the intra-class correlation coefficients [ICC(1)] for the outcome variables in order to examine the percentage of the variance explained at the group level and thus, to acquire a better understanding of the structure of the data.

With regard to hypotheses testing, the author followed Hofmann's (1997) and Aguinis, Gottfredson, & Culpepper's (2013) steps for multilevel modelling. The first step in the process is to carry out a one-way of variance model [through which ICC(1) is also obtained]. The second step involves employment of a random coefficient model to test for relations at the individual-level, while in the third step, an intercept as outcome model is used to assess cross-level direct relations. Finally, the fourth step is to perform a slope as outcome model in order to examine any cross-level moderating relations. It is worth mentioning that gender and position tenure at the individual level, and Consumer Co and ProfessCo at the team level were used as control variables

and held constant throughout the analyses. The following section elaborates on the hypotheses testing regarding the antecedents of effective managerial coaching.

5.4.2. Antecedents of effective managerial coaching

As explained above, first a null hypothesis model (one-way analysis of variance) was run in order to acquire the value of ICC(1) for the quality of managerial coaching. In particular, the between-group proportion of variance accounted for 14.1% and the respective chi-square statistic was significant ($p < .01$), thus, offering justification for a multilevel examination of the hypotheses. Table 5.9 exhibits the results of HLM analysis with regard to the antecedents of perceived effective managerial coaching. In particular, LMX ($\beta = .14$, $p < .001$) was significantly related to perceived effective managerial coaching, satisfying hypothesis 2. Similarly, LGO ($\beta = .21$, $p < .05$) was significantly related to perceived effective managerial coaching over and above the effect of LMX, satisfying hypothesis 1. However, the direct relation between the team manager's LGO ($\beta = .15$, $p > .05$) and managerial coaching was found insignificant, and thus, hypothesis 3 could not be supported.

Finally, the team manager's LGO was found to significantly moderate ($\beta = -.20$, $p < .05$) the positive relationship between LGO and perceived effective managerial coaching. Yet, the hypothesised direction of the moderation was opposite to what the findings revealed. Specifically, the results demonstrated that the lower the manager's LGO, the stronger is the relationship between employees' LGO and perceived effective managerial coaching. Hence, hypothesis 4 could not be supported. Bet that as it may, the relationship between LGO and managerial coaching for low, moderate, and high levels of team manager's LGO was further examined using simple slopes analysis (Cohen & Cohen, 1983, Aiken & West, 1991; Cohen, Cohen, West & Aiken, 2003) and computational tools as described in Preacher, Curran & Bauer (2006). Figure 5.2 offers a diagrammatic representation of the moderating role of manager's LGO in the positive relationship between employees' LGO and perceived effective managerial coaching. Specifically, LGO was found to be significantly and positively related to perceived effective managerial coaching at lower (B =. 37, $p < .01$) levels of a team manager's LGO, while the relationship was found insignificant at moderate (B = .19, $p > 0.05$) and higher levels (B = .01, $p > 0.05$) of a team manager's LGO.

Having examined the hypotheses related to the antecedents of effective managerial coaching, the following part investigates the hypotheses regarding the consequences of the practice on employee outcomes.

FIGURE 5. 2

Employee's LGO effects on perceived effective managerial coaching at different levels of a manager's LGO
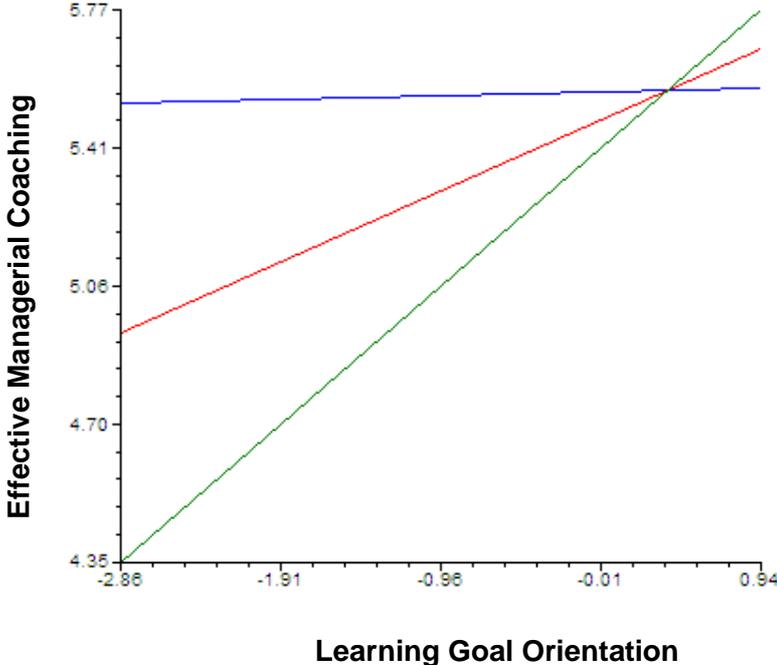
———— MLGO = 0.920

———— MLGO = 0

———— MLGO = -0.920

TABLE 5.9

**Results of hierarchical linear modelling: antecedents of perceived effective
managerial coaching**

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Level 1 (n=185)					
Intercept	5.49*** (0.10)	5.49*** (0.11)	5.49*** (0.11)	5.49*** (0.11)	5.49*** (0.11)
Gender	-.39 (0.22)	-.34* (0.16)	-.30 (0.16)	-.29 (0.16)	.32* (0.16)
Pos.Ten.	.02 (0.05)	.00 (0.05)	.01 (0.05)	.01 (0.05)	.01 (0.05)
LMX		.14*** (0.02)	.14*** (.02)	.14*** (.02)	.14*** (.02)
LGO			.22* (0.10)	.21† (0.11)	.19 (0.10)
Level 2 (n=58)					
ConsumerCo	.11 (0.25)	.14 (0.30)	-.02 (0.25)	.05 (0.25)	.03 (0.24)
ProfessCo	.38 (0.23)	.22 (0.22)	.12 (0.24)	.15 (0.23)	.14 (0.23)
M.LGO				.15 (0.11)	.08 0.11)
LGO x M.LGO					-.20* (0.10)

Note: Pos.Ten. = Position Tenure; LGO = employees' Learning Goal Orientation; LMX = Leader-
Member Exchange; M. LGO = Manager's LGO

† p [.05, .06], * p < .05, ** p< .01, *** p < .001

5.4.3 Consequences of managerial coaching

According to the conceptual framework of the thesis, managerial coaching represents both a workplace developmental interaction between a manager and an employee, and a shared team practice. Under this line of reasoning, the two different facets of managerial coaching are related differently to employee outcomes. Hence, the present section examines not only individual-level relations, but also cross-level and team-level associations. Specifically, as discussed above, the section is divided into two parts. The first part examines the relation of effective managerial coaching to task performance, while the second part investigates the relation of the practice to information sharing.

5.4.3.1 Consequences of effective managerial coaching on task performance

In accordance to the above analysis and prior to hypotheses testing, a null hypothesis was run for individual task performance in order to assess the proportion of variance explained at the group level. Specifically, the value of ICC (1) for individual task performance was high (= 55.18%) and the chi-square statistic highly significant (p < .001). These findings further justify the adoption of a hierarchical structure for testing the hypotheses.

Table 5.10 presents the results of HLM with regard to the consequences of effective managerial coaching on individual and team task performance. As it has already been discussed, gender, position tenure, Consumer Co, and ProfessCo were used as control variables and were held constant. HLM analysis revealed that the average quality of managerial coaching in a team is significantly related to individual (β = .22, p < .05) and team (β = .25, p < .05) task performance; thus, providing support for hypotheses 9 and 8 respectively. Nevertheless, the analysis could not offer support for hypothesis 5 and specifically that managerial coaching at the interpersonal level is significantly related to individual task performance (β = .03, p > .05).

5.4.3.2 Consequences of effective managerial coaching on information sharing

With regard to information sharing, the null hypothesis rendered an ICC(1) that accounted for 10.00%, while the respective chi-square statistic indicated that the intercept was significantly (p < .05) different between the groups. These findings demonstrate that between-group variance is reasonably high to adopt a multilevel model. In this respect, the analysis revealed that managerial coaching as a dyadic one-on-one intervention is significantly and positively related to employees' perceived

information sharing (β = .24, p < .05). Relatedly, the average quality of managerial coaching conducted to each team member per se was found to also significantly relate to employees' perceived information sharing (β =.19, p < .05). Table 5.11 exhibits the above relations. Overall, support was provided for both hypotheses 6 and 7.

TABLE 5.10

Results of hierarchical linear modelling: consequences of managerial coaching on task performance

Independent Variables	Individual Task Performance			Team Task Performance	
	Model 6	Model 7	Model 8	Model 9	Model 10
Level 1 (n=185)					
Intercept	6.10*** (0.08)	6.10*** (0.08)	6.10*** (0.08)	6.30*** (0.12)	4.96*** (.53)
Gender	-.23 (0.13)	-.23 (0.13)	-.23 (0.13)		
Pos.Ten.	.00 (0.02)	.01 (0.02)	.01 (0.02)		
Coaching		.03 (0.04)	.02 (0.05)		
Level 2 (n=58)					
ConsumerCo	.09 (0.21)	.02 0.20)	.04 (0.20)	.08 (0.21)	.07 (.20)
ProfessCo	-.76*** (0.20)	-.82*** (0.20)	-.84*** (0.20)	-.79*** (.20)	-.85*** (0.19)
Team-average coaching quality			0.22* (0.10)		.25* (.10)

Note: 1. Results for Models 9 and 10 acquired through multiple regression analysis using SPSS version 20.

2. Pos.Ten. = Position Tenure

 * p < .05, *** p < .001,

TABLE 5.11

Results of hierarchical linear modelling: consequences of perceived effective managerial coaching on perceived information sharing

Independent Variables	Model 11	Model 12	Model 13
Level 1 (n=185)			
Intercept	4.70*** (0.08)	4.70*** (0.08)	4.70*** (0.08)
Gender	-.33 (0.22)	-.19 (0.22)	-.17 (0.21)
Pos.Ten.	.00 (0.03)	.00 (0.03)	-.00 (0.03)
Coaching		.24* (0.11)	.26* (.11)
Level 2 (n=58)			
ConsumerCo	.48* (0.21)	.46* (0.19)	.45* (0.19)
ProfessCo	.78*** (0.18)	.81*** (0.17)	.76*** (0.17)
Team-average coaching quality			.19* (0.10)

Note: Pos.Ten. = Position Tenure

* $p < .05$, *** $p < .001$

Having examined the hypothesised intrapersonal, interpersonal and team-level processes that are related to effective managerial coaching and in turn its relation to task performance and information sharing, the following part elaborates on the data analysis conducted to test the hypothesised mediations.

5.4.3.3 The mediating role of managerial coaching and information sharing

As discussed in the literature review, managerial coaching is related to a combination of intrapersonal, interpersonal and team processes and at the same time, it relates to a unique amalgamation of intrapersonal, interpersonal and team processes. Similarly, drawing on social cognition, information sharing is a cognitive employee characteristic that reciprocally interacts with behavioural outcomes and reforms employees' presence at the workplace. Taking the above into consideration in combination with the objective of the thesis regarding the development and examination of a comprehensive framework, the present sub-section assesses the mediating role of managerial coaching and information sharing in order to offer a more holistic apprehension of the phenomenon. Specifically, the sub-section examines the mediating role of effective managerial coaching on the relationships between the quality of LMX and employees' information sharing. Thereupon, the subsection assesses the mediating role of information sharing on the relationships between effective managerial coaching and task performance. Both mediation analyses are conducted according to Baron & Kenny's (1986) method. Specifically, it is first tested whether the independent variable is significantly related to the dependent variable (path c) and the mediator (path a). Thereupon, it is tested whether the mediator is significantly related to the dependent variable (path b) and lastly whether the strength of the relation between the independent variable and the dependent variable decreases when the mediator is included in the equation (path c'). Both paths a, and b were assessed above, while the results of the analyses for paths c and c' are depicted in Table 5.13.

LMX – Managerial coaching – Information sharing

As discussed, LMX is significantly related to managerial coaching (β = .14, p < .001; path a) and in turn, managerial coaching is significantly related to information sharing (β = .24, p < .05; path b). Additional HLM analysis revealed that LMX is also significantly related to information sharing in the absence of managerial coaching (β = .09, p < .001; path c), while the relationship becomes insignificant after the inclusion of managerial coaching as a mediator variable (β = .06, p > .05; path c'). Although the above conditions are met, when managerial coaching is added as a mediator variable, its relation to information sharing is renders insignificant (β = .11, p > .05) and therefore, the hypothesised mediation is not supported. Be that as it may, Sobel test statistic was found significant (=2.08, p < .05; v. Table 12) and thus, multilevel SEM was run to acquire confidence intervals (Preacher, Zhang, & Zyphur, 2011; Preacher,

Zyphur & Zhang, 2010). The analysis yielded an insignificant mediation effect (β = .013, p > .05), while 95% confidence intervals were on either side of the value of zero [CI: -0.016, 0.041]. All in all, the findings could not provide support for hypothesis 10.

Coaching – Information sharing – Task performance

As already discussed, managerial coaching is significantly related to information sharing (β = .24, p < .05; path a) and in turn, information sharing is significantly related to task performance (β = .15, p < .05; path b). Yet, the relationship between managerial coaching and task performance is insignificant (β = .03, p > .05; path c) and hence, according to Baron & Kenny's (1986) recommendations, the first condition for mediation testing is not met. In line with this, Sobel test statistic was insignificant (=1.29, p > .05; v. Table 5.12). In correspondence to the preceding mediation analysis, multilevel SEM was also run and the analysis revealed an insignificant within group indirect effect (β=0.038, p > .05) with 95% confidence intervals on either side of the value of zero [CI: -0.004, 0.092]. Hence, hypothesis 11 could not be supported.

TABLE 5.12

Testing the significance of mediation with Sobel test statistic

	LMX→CO→IS	C0→IS→TP
a	.12	.18
b	.24	.15
Sa	0.02	0.12
Sb	0.11	0.06
c	.09	.03
c'	.06	.02
Sobel	2.08	1.29
Standard Error	0.02	0.09
p	.037	.198

TABLE 5.13
Results of hierarchical linear modelling: effects of LMX & perceived effective managerial coaching on information sharing and of information & perceived managerial coaching on individual task performance

Independent Variables	Information Sharing		Individual Task Performance	
	Model 14	Model 15	Model 16	Model 17
Level 1 (n=185)				
Intercept	4.70*** (0.08)	4.70*** (0.08)	6.11*** (0.08)	6.11*** (0.08)
Gender	-.16 (0.20)	-.09 (0.22)	-.14 (0.13)	-.14 (0.13)
Pos.Ten.	.01 (0.03)	.01 (0.03)	.00 (0.02)	.00 (0.02)
LMX	.09*** (0.03)	.06 (0.03)		
Information Sharing			.15* (0.06)	.14* (0.07)
Coaching		.18 (0.12)		.02 (0.05)
Level 2 (n=58)				
ConsumerCo	.56** (0.20)	.56** (0.20)	.09 (0.21)	.03 (0.20)
ProfessCo	0.85*** (0.17)	.89*** (0.17)	-.073*** (.20)	-.79*** (0.20)

Note: * p< .05, *** p < .001

5.5 Chapter summary

The aim of the present chapter was to test the hypotheses developed in the third chapter and thus, to meet the objectives of the thesis for an empirical examination of the perceived quality of managerial coaching. Against this background, the chapter endeavoured not only to empirically examine the extent to which the characteristics of the coach, the coachee, and the context are related to the perceived

effectiveness of managerial coaching, but also to investigate the consequences of individual and team-level managerial coaching on task performance and information sharing. In this respect, a step-by-step approach was followed: firstly, the reliability and validity of the measures were examined, secondly, descriptive statistics and correlations were calculated, thirdly hypotheses were tested, and finally post-hoc analysis was conducted.

First of all, it was deemed essential to conduct a CFA, an EFA and a multigroup CFA in order to establish the validity of the measures for the participants from each country per se, that is, to ensure that the British and Greek participants perceived the actual meaning of the construct, and replied to the questionnaires accordingly. Thereupon, reliability estimates indicated that the measures employed are reliable in that they produce similar values in a consistent and steady manner. Further, descriptive statistics and correlations were presented, which not only gave a first indication of the direction and strength of the relationships, but also facilitated the replicability and generalizability of the study. Thereafter, hierarchical linear modelling was employed to test the hypotheses of the study, the process of which was divided into three meaningful parts: antecedents of effective managerial coaching, consequences of effective managerial coaching, and mediations.

With regard to the antecedents, drawing on the conceptual framework, the analysis investigated the relation of employees' and managers' goal orientation to the perceived effectiveness of managerial coaching. In addition, since coaching is a dyadic developmental interaction, the analysis also examined the relation of the chemistry between the manager and the employee to the perceived quality of the practice. Specifically, it was found that both the quality of LMX and employees' LGO were significantly related to perceived effective managerial coaching, while managers' LGO was not significantly related to the perceived quality of the practice. Be that as it may, in contrast to hypotheses 4, managers' LGO was found to moderate the positive relationship between employees' LGO and effective managerial coaching in the opposite direction. In particular, the analysis revealed that the relationship between employees' LGO and perceived effective managerial coaching is stronger for low levels of managers' LGO. In point of fact, post hoc analysis indicated that employees' LGO is significantly related to managerial coaching for low levels of a manager's LGO, while the relationship is insignificant for moderate to high levels of a manager's LGO. Hence, support was provided for hypotheses 1 and 2, while hypotheses 3 and 4 could not be supported.

With regard to the consequences, following the conceptual framework of the thesis, perceived effective managerial coaching was examined both as a dyad developmental interaction between an individual employee and the line manager, and as a shared team practice that facilitates co-ordination and collective learning. In this respect, the analysis yielded a positive and significant relationship between perceived effective managerial coaching and information sharing and a positive but insignificant relationship between the practice and individual task performance. Hence, the analysis provided support for hypothesis 6, while hypothesis 5 could not be supported. Secondly, the average quality of managerial coaching at team-level was significantly related to both team and individual task performance, and in addition to perceived information sharing. Thus, the analysis offered support for hypotheses 7, 8, and 9.

Finally, building on the conceptual framework, managerial coaching and information sharing were examined as mediation mechanisms that link intrapersonal, interpersonal and group processes with important work outcomes. The analysis yielded no significant mediation of effective managerial coaching in the relationship between LMX and information sharing. Likewise, no support was found for a significant mediation of information sharing in the relationship between effective managerial coaching and task performance. Thus, hypotheses 10 and 11 could not be supported.

The following chapter discusses the findings of the abovementioned data analysis and literature review apropos of the research aim and questions of the thesis. Thereafter, it elaborates on the theoretical contribution and practical implications of the thesis, while it acknowledges the limitations and pinpoints avenues for future research.

6. Discussion

6.1 Chapter introduction

The aim of the present chapter is to discuss the findings of the data analyses and to explicate in which way the objectives of the thesis are met. In this respect, the chapter first recapitulates the research problem, questions and methodology adopted in order to subsequently offer a more comprehensive discussion and interpretation of the results. Thereafter, the chapter explicates the theoretical contribution of the thesis, which is followed by a consideration of the practical implications for HR practitioners and organisations in general. Thereupon, potential limitations are acknowledged based on which, future research avenues are proposed.

6.2. Overview of research problem, research questions and conceptual framework

The focus of the thesis is the type of coaching which is delivered by the functional leader of the team or otherwise the line manager, given that it is the most widely used form of coaching in organisations (Segers & Inceoglu, 2012) and is considered to be one of the most compelling leadership processes (Zaccaro et al., 2001). Indeed, in today's knowledge-intensive society (Uhl-Bien et al., 2007), line managers coach their subordinate knowledge workers in order to enable them "to generate results and to be empowered by the results they generate" (Evered & Selman, 1989: 18). Thus, managerial coaching emerges as an alternative team co-ordination strategy to past delegation techniques that are less relevant to knowledge-intensive settings.

Given its wide use and importance in the contemporary workplace, a growing body of literature has started to examine the relationship between managerial coaching and task performance (Gittell, 2001; Liu & Batt, 2009; Agarwal, Angst, & Magni, 2009; Stoker, 2008; Kim, Egan, Kim, & Kim, 2013; Kim, Egan, & Moon, 2014). The rationale lies in that unless the practice is tangibly linked with important employee outcomes, justification of any investment of business resources may be difficult. Be that as it may, past research mainly focused on individual rather than on team-level task performance. Hence, the major contribution of the thesis is the theoretical development and empirical examination of a framework that incorporates the relation of managerial coaching not only to individual but also to team task performance. In

turn, this may enable a more comprehensive appreciation of the potential of the practice of managerial coaching in the workplace. Further, contributing to a more inclusive understanding of the mechanism that links managerial coaching with task performance, the thesis also focuses on information sharing, as an important employee outcome that has been found to relate to both workplace interventions (e.g. Bryant, 2005; Cabrera & Cabrera, 2005) and task performance (e.g. Mesmer-Margnus & DeChurch, 2009; Srivastava, Bartol & Locke, 2006).

In addition to the above, the study identified a number of controversies in extant literature. Specifically, the term "coaching" is indistinctly used together with other workplace practices, such as mentoring, to describe developmental interactions in general, while there is no consensus on the different types of workplace coaching. Similarly, no agreement exists on the association of coaching, as a dyadic intervention between a line manager and an employee, with managing and/or leading behaviours. The above amplify the gap between contemporary workplace and academic research and raise concerns for a possible characterisation of managerial coaching as another management fad (Agarwal et al., 2009; Grant & Cavanagh, 2007; Lapp & Carr, 2008; Segers et al., 2011). Against this background, the thesis highlighted the need to underpin the practice of managerial coaching with theory that highlights its discrete characteristics in comparison not only to other workplace practices, but also to other types of coaching, and also leading and managing behaviours.

With regard to the first identified controversy, i.e. the inconsistent use of the term coaching, it was discussed that the concurrent exercise of different developmental and interactive practices in a single session may lead to their consideration as a bundle rather than as distinctive practices. Furthermore, a flourishing coaching industry gave rise to the development of diverse types of coaching, which may collide with each other and thus, produce a less-coherent message with regard to the distinct potential of each coaching type per se. Against this background, the thesis not only clarified the discrete characteristics of managerial coaching, but also elaborated on the contribution of the practice in the development and co-ordination of employees. In doing so, it facilitates its effective use in the workplace and in addition, it provides justification for any respective investments of business resources.

Regarding the relationship between managerial coaching and managing and leading behaviours, certain scholars perceive coaching as a practice that lies in the

heart of management (e.g. Ellinger, 2013; Ellinger et al., 2011; Evered & Selman, 1989; Hamlin, 2004; Heslin et al., 2006; Jones, 1995; Orth et al., 1987), others enlist it as one of many managerial tools/practices (e.g. Ellinger & Bostrom, 2002; Hawkins & Smith, 2007; Slåtten et al., 2011), some scholars conceptualise it as one of many leadership styles/leader behaviours (e.g. Arnold et al., 2000; Goleman, 2000; Hon & Chan, 2013; Vesterinen et al., 2013), while few view managing and leading as synonymous terms and thus, perceive managerial coaching to play an important role for either of them (Carter, 2006; Ellinger et al., 1999; Hagen, 2012). As a result, there is no consensus regarding the use of coaching by the manager/leader and hence, no common theoretical foundations exist. In turn, this controversy contributes to the partial comprehension of managerial coaching either as a workplace developmental practice or as manager/leader behaviour and thus, offers a limited perspective on the usefulness of the practice at the workplace. Against this background, the present thesis highlights the dual nature of managerial coaching (both as a developmental interaction and a leadership practice). This view of coaching highlights the need to develop an integrated framework that underscores both facets.

Having discussed the aforementioned controversies and gaps in literature, the aim of the study was to theoretically develop and empirically examine a comprehensive conceptual framework of managerial coaching. In other words, the thesis aimed at examining the following research questions:

- What is effective managerial coaching?
- What are the antecedents of effective managerial coaching?
- What are the consequences of effective managerial coaching?

In the light of the above question, the objectives of the thesis were the following:

a. To theoretically substantiate and distinguish the construct of managerial coaching from other types of workplace coaching and developmental interactions
b. To develop a comprehensive operational framework of effective managerial coaching for knowledge workers
c. To examine, building on social psychology, the importance of intrapersonal; interpersonal, and team characteristics in the effectiveness of managerial coaching
d. To examine, through theoretical and empirical study and at different levels of analysis, the relation of effective managerial coaching to important work outcomes

Arguably, the development of a working definition for managerial coaching would offer a better understanding of the practice and thus, contribute to the research objectives of the study. To this effect, managerial coaching was firstly identified as a distinct developmental interaction that differs from other workplace learning practices, including mentoring and counselling, and from other types of workplace coaching, such as peer and executive coaching. Secondly, the literature review highlighted the importance of the element that designates the denomination for the type of coaching under investigation, which in the case of managerial coaching is the status of the coach, i.e. the line manager. Thirdly, the literature review examined the relationship between managerial coaching and managing or leading behaviours, while it also, operationalized managerial coaching as a distinct process comprised of four stages: feedback, goal setting, implementation, and evaluation of progress. Finally, building on both workplace learning and management literature, managerial coaching was defined as the dyadic developmental practice between a line manager and a team member, with the scope to delegate work to the latter through an on-going process, during which the team member not only develops or improves skills, competencies and performance but also, is empowered to pursue similar goals in the future in the absence of the manager and while working alongside the rest of the team members. The line manager offers constructive feedback and together with each member of the team assesses the situation and agrees on specific goals and plans for the latter's development and/or improvement in the workplace.

Further, adopting a social psychology perspective, the thesis developed an integrated multilevel framework that highlighted the dual nature of the practice and its contribution to task performance and information sharing both as a dyad (one-on-one) intervention and as a shared team practice. Moreover, the framework comprehensively captured the antecedents of perceived effective managerial coaching by taking into consideration intrapersonal, interpersonal and team characteristics. Specifically, it was hypothesised that employees' LGO, managers' LGO' and the quality of LMX are positively related to the perceived effectiveness of managerial coaching. Moreover, it was proposed that when a managers' LGO is high, employees' LGO contribution to the perceived effectiveness of managerial coaching is stronger. Further, it was hypothesised that managerial coaching as experienced by the individual employee is positively related to individual task performance and information sharing, while managerial coaching as a practice that is effectively conducted to each member of a team is positively related not only to individual task performance and information sharing, but also to team task performance. Finally, it was hypothesised

that perceived effective managerial coaching, as a dyadic intervention, mediates the relationship between LMX and information sharing, while information sharing mediates the relationship between perceived effective managerial coaching and individual task performance. The thesis empirically examined the abovementioned framework, in order to meet specific research objectives (c and d) and hence, provided comprehensive answers to the research questions. The following section elaborates on the methodology that was employed to achieve these objectives.

6.3 Overview of methodology adopted

The abovementioned hypotheses were examined adopting a positivistic perspective and a cross-sectional research design. A quantitative survey questionnaire was administered to knowledge workers across two organisations in the U.K. (ConsumerCo and ProfessCo) and one organisation in Greece (MachineCo), espousing an etic cross-cultural design. The overall target sample size accounted for 452 respondents (86 managers and 366 team members), of whom 251 respondents (60 managers and 191 team members) fully completed the questionnaires. Two types of questionnaires were developed: the first questionnaire asked employees to comment on items related to themselves, their managers and the organisation, in which they work, and included 54 items overall. The second questionnaire asked managers to rate the performance of their reports and, in addition, to answer certain questions about themselves. The latter was comprised of 45 items. Brislin's (1980) translation-back-translation technique was employed in order to ensure that respondents in both countries approached the items of both questionnaires in a similar fashion in terms of meaning and significance. In line with this, Cronbach's alpha coefficients ensured reliability of the measures used. Thereafter, the researcher conducted EFA and CFA to establish the validity of the scales. Given that the data were collected from two different countries, multigroup CFA was also employed and attained partial measurement invariance, which is a necessary condition in order to proceed with hypothesis testing, especially when data are collected from different countries. Subsequently, descriptive statistics and correlations were employed in order to provide a first indication regarding the hypotheses and also, to increase the generalizability and replicability of the findings. Thereupon, hierarchical linear modelling was used to test the hypotheses of the study and thus, the proposed individual-level, team-level and cross-level effects. This type of analysis also accounted for possible within-group variance of the nested data and thus, eliminated

any bias due to team membership. The following section elaborates on the findings of the hierarchical linear modelling.

6.4 Discussion of findings

The present section elaborates on the results of the data analysis, which may be found in the fifth chapter. Specifically, the section is organised as follows. Firstly, a brief overview of the resultant framework is given and thereupon, a thorough discussion is undertaken that is divided into three sub-sections: antecedents, consequences, and mediations. The section concludes with a table that summarises the tested hypotheses and their outcomes.

6.4.1. Resultant framework

The dual-level conceptual framework of the thesis that was presented and explained in the third chapter formed the basis of the data analysis. In turn, this part integrates the findings and presents the resultant framework. The aim is to highlight the most significant results and offer a comprehensive understanding of the practice that is substantiated by the findings.

One of the major contributions of the study is the multilevel examination of managerial coaching, i.e. both as an interpersonal, one-on-one intervention and as a shared team practice. Indeed, the resultant framework, which is illustrated in Figure 6.1, signifies that a sole examination of the individual-level or team-level effects may only partially appraise the potential of the practice in developing employees and improving important work-related outcomes. Relatedly, the findings demonstrated that the different facets of managerial coaching are related to different outcomes. In particular, while one-on-one managerial coaching is related to cognitive employee outcomes, such as perceived information sharing; its collective facet is related to both cognitive and behavioural outcomes, including team and individual performance. The contribution is substantial both theoretically and practically. Not only does this add to a scarce area of research on the relation of coaching to team performance, but also it highlights that unless the manager effectively coaches the majority of the team members, the full potential of the practice may not be reached. To this effect, the findings substantiate the theoretical underpinning of managerial coaching in this study, according to which coaching is not only a developmental intervention, but also a team-coordinating practice.

Figure 6.1 Antecedents and consequences of effective managerial coaching
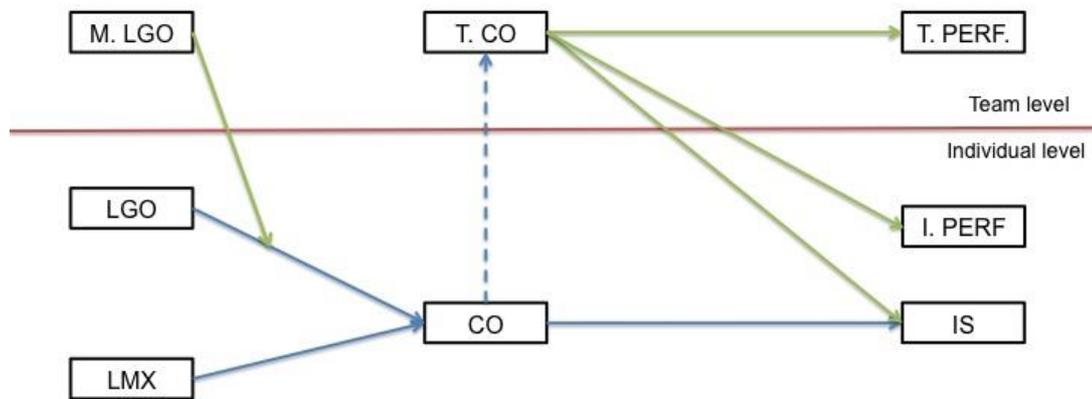
LGO= Learning Goal Orientation, LMX= The Quality of Leader-Member Exchange, CO= Perceived Managerial Coaching Effectiveness, IS= Information Sharing, I. PERF= Employee's Individual Task Performance, T.CO = Team-level perceived managerial coaching effectiveness, M.LGO= Manager's LGO, T.PERF= Employees' team task performance

Further, in line with social psychology, the study demonstrated that perceived effective managerial coaching is related to intrapersonal (employees' LGO), interpersonal (quality of LMX), and team characteristics (managers' LGO). Taking into consideration the limited empirical work on the antecedents of perceived effective managerial coaching, the findings of the present research represent a significant contribution to scholarship. Furthermore, they draw the attention of practitioners not only on individual attributes, but also on interpersonal and contextual qualities. Indeed, the findings highlight the duality of managerial coaching, and also the importance of the context within which the practice is employed. To this effect, the results indicated that a manager's LGO moderates the positive relationship between employees' LGO and perceived effective managerial coaching in such a way that the contribution of employees' LGO on coaching effectiveness is only significant when the manager scores low to moderate on LGO. Although the direction of the moderation is opposite to what it was hypothesised, the findings further underlined the importance of the context in the case of managerial coaching. The hierarchical relationship between the line manager and the employee renders the practice substantively different from other types of coaching and developmental interactions. Thus, the hierarchical structure of the data needs to be taken into consideration in order to avoid biased results. In this respect, the study corresponded to calls for more integrated models (Illeris, 2003) by both taking into consideration contextual characteristics and accounting for team membership. The following section discusses the findings of the study in greater detail.

6.4.2. Antecedents of perceived effective managerial coaching

The data analysis revealed that the quality of LMX between a manager and an employee is positively related to the perceived effectiveness of managerial coaching. The relationship remains strong and significant even after including other variables in the equation, such as employees' LGO and managers' LGO. This lies in accordance with the study of Scaduto et al. (2008), who found that the quality of exchange between a manager and an employee influenced the motivation of the latter to participate in training interventions and also, impacted on the transfer of training. Indeed, in high-quality exchanges, the manager provides more resources and support to the employees per se (Liden et al., 2006) and in turn, the employees trust the manager (e.g. Brower, Schoorman, & Tan, 2000; Graen & Uhl-bien, 1995; Scandura & Pellegrini, 2008) and believe that coaching initiated by the latter is for their own benefit (Sue-Chan et al., 2011). Hence, the analysis provides supports for hypothesis 2.

Further, in line with the perspective that individual differences play an important role in the contemporary workplace (Day, 2000), the findings yielded a significant positive relationship between employees' LGO and the perceived effectiveness of managerial coaching, after controlling for LMX. This is in agreement with the theoretical foundations of LGO theory developed by Dweck (1999), according to which, individuals who score high on LGO, believe that intelligence is malleable and thus, are willing to involve with interventions to improve their knowledge, skills and abilities. In other words, employees, who scored high on LGO, were willing to consciously involve themselves with developmental activities, including coaching, as they believed that they would be able to develop themselves through these practices. Hence, by being more attentive to developmental opportunities, they benefited the most out of coaching offered by their line manager. Indeed, meta-analytic results signify a positive relationship between motivation to learn and transfer of training (Blume et al., 2010), while holding accountability of own development contributes in further sustaining the newly acquired knowledge, skills or abilities (Armstrong, 2009). The above indicates that hypothesis 1 was, also, supported.

According to past empirical research managers who hold an incremental theory, i.e. they believe that intelligence is malleable, are more willing to coach their team members (Heslin et al., 2006) and in turn, those willing to coach are more prone to offer support to older workers (Leisink & Knies, 2011). Drawing on this, the study hypothesised a direct relationship between a team leader's LGO and coaching effectiveness. Nevertheless, the results could not provide support for this hypothesis.

Taking into consideration the underlying reasoning, that is, incremental implicit theory is positively related to LGO (Dweck & Leggett, 1988), the following explanations are proposed to elucidate the lack of a significant direct relationship.

Firstly, team leader's high levels of LGO may be a distal antecedent of effective managerial coaching and thus, a team or an individual-level variable may mediate the relationship. Taking into account that self-regulation is related to LGO (Sitzmann & Ely, 2011), self-regulation tactics may serve as proximal constructs that mediate the relationship between team leader's LGO and coaching effectiveness. For example, VandeWalle et al. (1999) demonstrated that the self-regulation tactics of goal setting, effort and planning act as mediators in the relationship between LGO and sales performance. Likewise, in the education sector, teacher's LGO was found to relate positively to the process of planning and goal setting of students' questioning and help seeking behaviour (Butler & Shibaz, 2008), as well as students' effort and progress (Retelsdorf, Butler, Streblow, & Schiefele, 2010). Indeed, having argued that team leader's coaching is a regulating mechanism that helps employees develop their own self-regulating mechanisms, it may be seconded that self-regulating tactics mediate the relationship between team leaders' LGO and coaching effectiveness.

A second explanation for the absence of a significant direct relationship may be ascribed to the context of the particular study. Specifically, as discussed above, since formal team leader coaching procedures were not in place in the participating organisations, coaching was not included in the leaders' job description nor did they receive additional organisational support or resources for its exercise. Thus, it is possible that those managers, who exercised coaching, were engaging in the practice more as an informal or naturally occurring practice rather than as a formal intervention. Furthermore, the determinant factors for the effectiveness of informal or incidental practices entail "need, motivation, and opportunity for learning" (Marsick & Watkins, 2001: 28), which may be reflected in the abovementioned two other variables of the study, namely employees' LGO (need, and motivation for learning) and quality of LMX (opportunity for learning). Hence, it is likely that due to the prevalence of informal managerial coaching in the present study, a team leader's LGO was not significantly related to coaching effectiveness and as a result, hypothesis 2a could not be supported. Having discussed the findings on the antecedents of effective managerial coaching, the following part discusses the consequences of the practice.

Finally, the study hypothesised that the relationship between an employee's LGO and effective managerial coaching is stronger when the manager scores high rather than low on LGO. The underlining rationale was the fact that when both members of a dyad (manager and employee) score high on LGO, there is mutual understanding, goal congruence and involvement in learning opportunities that increases the likelihood of engaging in effective coaching conversations. However, the results of the data analysis could not support the hypothesised moderation. Specifically, the findings demonstrated that the relationship between employee's LGO and effective managerial coaching is insignificant for moderate to high levels of a manager's LGO and significant only for low levels of a manager's LGO. The author offers the below explanation for this counter-intuitive result.

As it has been already discussed, managers with a high LGO are more prone to formally engage in developmental interventions. However, in all three participant organisations, coaching was practised informally. This may indicate that when both employees and managers score high on LGO, formal learning interventions already in place (instead of coaching) are preferred to promote and satiate the need for learning. On the other hand, managers with a low LGO are less willing to formally develop their team members and thus, the team members with a high LGO need to look for developmental opportunities outside formal interventions. LGO has been linked with self-regulation processes that explain the ways, in which learners adapt their behaviour during training in order to achieve their learning goals (Sitzmann & Ely, 2011). Specifically, employees with a high LGO, who do not receive adequate formal development, look more intensively for developmental opportunities at the workplace and thus, welcome any situation as a chance for additional learning. Hence, it is likely that the relationship between employees' LGO and managerial coaching is significant only for teams with a manager who scores low on LGO, since they have to self-regulate their learning to a greater extent than employees in teams with a manager, who scores high on LGO. Indeed, encouragement/motivation by the manager plays a less significant role in the informal practice of managerial coaching. In contrast, learner's motivation *for* learning is a key factor for the effectiveness of informal or incidental practices (Marsick & Watkins, 2001: 28).

In line with the above, social learning theory and role modelling (Bandura, 1988, 1991; Davis & Luthans, 1980) posit that employees model themselves on the behaviour of their leaders. Hence, it is possible that the lower the LGO of a line manager, the less conducive the team environment is to learning. On the other hand, the higher the LGO of a manager, the more opportunities are offered formally to the

employees for learning and thus, the team members understand that learning is a significant behaviour that needs to be exhibited within the team. Under this line of reasoning, it is likely that the employees with a high LGO, who are in teams with a manager also with a high LGO, are given plenty of formal learning opportunities and therefore, they pay less attention to instances of informal coaching by their line manager – especially, given that the team environment is highly conducive to learning. On the other hand, those team members with a high LGO, who are in teams with a manager with a low LGO, need to pursue learning and development through informal and incidental interventions, including informal coaching sessions by their line manager. Hence, it is likely that these employees perceive informal coaching as an opportunity for further learning and development. As a result, they pay significant attention to instances of coaching and their active engagement contributes to the effectiveness of the practice.

6.4.3. Consequences of perceived effective managerial coaching

Managerial coaching is a workplace practice of dual nature in that it forms not only a dyad interaction, i.e. offered on one-on-one basis with the purpose to empower a team member to develop and perform at the workplace, but also constitutes a shared team practice that promotes collective learning and action, and, sequentially informs team and individual processes. Hence, the present section is divided into two parts: the first part discusses the findings on the direct, individual level consequences of perceived effective managerial coaching experienced as a one-on-one interaction, while the second part explicates the results with regard to the cross-level and team-level consequences of the practice as a common leader behaviour among the members of a team.

6.4.3.1 Direct, individual level consequences of perceived effective managerial coaching

With regard to hypothesis 6, results of the analysis supported a significant positive relationship between perceived effective managerial coaching and perceived information sharing. This finding is consistent with the view that the human factor plays a major role in the creation, transfer and use of knowledge (DeTienne et al., 2004) and with Smither et al.'s (2003) study, according to which coaching resulted in the development of cognitive skills, including sharing and asking for feedback. Indeed, building on the accommodation and assimilation processes of cognitive theory (Piaget, 1954), managers, who effectively coach their employees, share all the necessary information that enables the latter to develop new mental schemata or update already

existing ones. In turn, drawing on the notion that "leaders act as agents of the organization" (Eisenberger, Stinglhamer, Vandenberghe, Sucharski, & Rhoades, 2002: 565), that is, that the leader represents the organisation and hence, the behaviour of the leader represents the organisational norm, employees who receive effective coaching from their managers, receive an abundance of information and as a result, perceive that information is widely shared in the organisation.

Finally, the literature review identified ambiguous findings with regard to the relationship between perceived managerial coaching behaviour and individual task performance. Specifically, some studies have reported a significant positive relationship (Kim et al. 2013; Liu & Bat, 2010; Stoker, 2008), while others demonstrate an interaction effect of managerial coaching on individual performance (Ellinger et al., 2011, 2008). Against this background, it was proposed that attention should be given to the effectiveness of the practice rather than to its mere demonstration. Nevertheless, the findings contradicted the hypothesis proposed. Specifically, the results of the data analysis indicated that perceived effective managerial coaching is not significantly related to performance. Taking into account that perceived managerial coaching behaviour has been shown to have a direct or indirect effect on individual task performance, the above finding appears rather peculiar. Hence, the thesis offers the following explanations.

Firstly, the majority of previous research conducted on perceived managerial coaching behaviour and individual task performance employed self-report data, with the exception of Liu & Batt's (2010) research. Hence, drawing on Podsakoff et al. (2003: 879), the discrepancy in the findings may be attributed in that the performance data of the thesis were rated by the managers and not the individual employees, which may resulted in eliminating any common method biases, that is, "variance that is attributable to the measurement method rather than to the constructs the measures represent" (Podsakoff et al., 2003: 879). In particular, the respondents in the abovementioned studies may have replied in a similar fashion to predictor and criterion variables either for consistency reasons or for illusory implicit beliefs that certain items in the questionnaires were interrelated (e.g. Berman & Kenny, 1976; Chapman & Chapman, 1969; Heider, 1958; Osgood & Tannenbaum, 1955).

Further, with regard to Liu & Bat's (2010) study, the targeted participants were telephone operators in a highly automated and routinized environment. Although performance was not rated by the individual employees but was extracted from an

electronic system and accounted for the monthly average call duration of an employee, the findings may not be generalizable to knowledge workers whose job requirements entail knowledge creation (Fuller & Unwin, 2010). That said, building on all the above, it is possible that in knowledge-intensive settings, where team co-ordination and effective use of relational synergies are important, managerial coaching experienced as a one-on-one developmental interaction may not contribute to individual task performance; yet, in more automated environments, where teamwork is less important in comparison to individual effort and skill, social interaction with the line manager in the form of managerial coaching may contribute to individual task performance.

Be that as it may, the researcher suggests that substantively, the results of the previous self-report studies indicate a significant relationship (direct or indirect) between perceived managerial coaching behaviour and employees' perceptions on their individual task performance. In other words, when managers display coaching behaviour, employees believe that this helps them to perform better. Put differently, according to social exchange theory (e.g. Blau, 1964; Cropanzano & Mitchell, 2005; Gouldner, 1960), higher levels of managerial behaviour will trigger employees to exert more effort to perform better in return. Likewise, it could be argued that perceived effective managerial coaching also encourages employees' perceptions on the contribution of the practice to the improvement of their task performance. Yet, in line with social psychology, their actual performance is related to a combination of processes and practices that reciprocally interact and inform employee behavioural and cognitive outcomes. This is especially true in the present context, where managerial coaching is mainly practiced as an informal, naturally occurring process. Hence, it is possible that in teams, in which managerial coaching is practiced informally on a one-on-one basis, its effectiveness is not directly related to individual task performance.

Arguably, drawing on empirical research on empowering leadership behaviour and perceived manager support (Humborstad, Nerstad, & Dysvik, 2014), it is likely that perceived managerial coaching may have a curvilinear effect on individual performance. Specifically, Humborstad et al. (2014) found that empowering behaviour exhibited by the leader is linked to perceived employee performance with a U-shape curvilinear relationship. In other words, the relationship is negative until empowering leadership behaviour reaches its mean, and thereupon, the relationship becomes positive and stronger. Taking into consideration that the aim of managerial coaching is

to empower employees to perform their tasks effectively and achieve their goals without the presence of the manager (v. sections 2.3.3 and 2.4), it could be argued that effective managerial coaching may follow a similar trend to empowering leadership. Thus, perceived managerial coaching may be positively related to perceived employee performance only when its quality exceeds average levels.

Further, considering the findings reported by Dysvik, Kuvaas & Buch (2014) regarding the moderating role of perceived manager support, it may be possible that perceived effective managerial coaching is related to individual performance indirectly via a moderating effect. Specifically, Dysvik et al. (2014) reported a significant interaction effect between perceived manager support and perceived training intensity that increases the strength of the positive relationship between perceived training intensity and employees' work effort. Thus, taking into account that a manager, who effectively coaches each team member per se, supports each of them in their development and improvement of performance, it is possible that employees may perceive informal but effective coaching as a display of support from their manager. Hence, on the occasion of other developmental opportunities in the organisations, including formal training, managerial coaching may be related to employee task performance indirectly, by affecting the strength of the relationship between already established developmental practices and employee performance.

Having elaborated on the results of the data analyses regarding the consequences of managerial coaching, experienced by employees as a dyadic intervention, the following section discusses the consequences of managerial coaching, as a shared team practice.

6.4.3.2 Direct, cross-level and team-level consequences of perceived effective managerial coaching

Team leaders coach each team member per se on a one-on-one basis not only to develop employees, but also to delegate tasks to team members and to co-ordinate their action within the team. Under this line of reasoning, managerial coaching may also be considered a practice that is shared within the team, thus contributing to collective learning and action and subsequently to important team and individual work outcomes.

Against this background, the thesis examined the relation of the team-average effectiveness of managerial coaching on team and individual performance. In both cases, a significant positive relationship was found. With regard to team performance,

indeed, managerial coaching acts as a co-ordination mechanism for the team that guides the individual employee with regard to acceptable ways to behave as a team member, co-operate, and perform tasks alongside colleagues. Regarding individual performance, the results correspond to previous empirical research, according to which coaching intensity is positively related to individual performance (Agarwal et al., 2009). Indeed, employees, who belong to a team in which the members receive on average better managerial coaching, better understand the boundaries of their remit. At the same time, they benefit from a collective knowledge that has emerged from a shared understanding of the processes of the organisation and the everyday interactions with fellow team members (Klein & Kozlowski, 2000; Morgeson & Hofmann, 1999). Hence, the results of the analysis supported that employees who belong to a team, in which the members receive on average better managerial coaching, achieve better individual performance than employees who are members of a team, in which managerial coaching is not effectively offered to all the team members.

Further, the findings yielded a positive relationship between the average effectiveness of managerial coaching offered to each team member of a team and employees' perceptions of information sharing. These findings are in line with previous research that reported a positive relationship between empowering leadership – of which, coaching is one of the five factors - and knowledge sharing (Srivastava et al., 2006). Drawing on the argument that teams tend to imitate the behaviour of their leader (Mullins & Christy, 2011), those teams whose members are on average coached effectively by their manager, receive an abundance of information from the latter and hence, are expected to replicate their manager's behaviour and freely share information with their fellow team members. Taking into consideration the proximity of the team members, results of the analysis supported that employees in teams with effective coaching perceive that information is widely shared within the organisation.

Having discussed the direct individual-level, cross-level, and team-level effects of managerial coaching both as a dyadic intervention and as a shared team practice, the following section discusses results of the analysis on the mediating role of managerial coaching and information sharing.

6.4.3.3 The mediating role of effective managerial coaching and information sharing

It was hypothesised that information sharing mediates the positive relationship between perceived effective managerial coaching and individual task performance. Taking into consideration that the relationship between managerial coaching and job performance was found insignificant, the findings could not support hypothesis 11. As discussed in section 6.4.3.1, a possible explanation of failing to find a positive linear relationship may be attributable to a U-shape curvilinear relationship between the two constructs. In other words, the relationship is negative until perceived effective managerial coaching reaches its mean, and thereupon, the relationship becomes positive.

Another explanation that was offered was the possibility of managerial playing and indirect role on individual task performance. For instance, in the case of the present hypothesis, it could be argued that perceived effective managerial coaching moderates the relationship between information sharing and individual performance in such a way that the relationship is stronger for those employees who receive effective coaching from their manager. The rationale behind this suggestion lies in the scope of managerial coaching, that is, to enable individual employees to set and achieve objectives in the future without the presence of their manager. Hence, it may be argued that employees, who are effectively coached, are able to use any existing resources more effectively in order to achieve their objectives than their counterparts, who had no effective guidance from their manager.

Finally, the thesis proposed that perceived effective managerial coaching mediates the relationship between the quality of leader-member exchange and perceived information sharing. Nevertheless, data analysis could not support this mediation hypothesis. In particular, when both managerial coaching and LMX were added to the equation, the analysis rendered insignificant results for both their effects. Taking into consideration the abovementioned findings regarding the positive relation between LMX and perceived effective managerial coaching and between perceived effective managerial coaching and information sharing together with prior literature on the positive link between LMX and information sharing (e.g. Carmeli et al., 2011; Sias, 2005), it is likely that a buffering effect renders the mediation insignificant. In particular, Hackman & Wageman (2005) discussing team coaching and team effectiveness highlighted the existence of process losses and process gains. The two

processes, which were developed by Steiner (1972), refer to the interaction of the members of a group in a way that hinders or that promotes team effort respectively.

Against this background, it is possible that a process gain or loss buffers the positive relationship between coaching and information sharing and hence, may render the mediating effect of managerial coaching on the relationship between LMX and information sharing significant/insignificant correspondingly. Specifically, it is likely that maintaining a high quality of exchange with one's manager may result in effective coaching; yet, acting in the disadvantage of the team may not promote information sharing. Indeed, as it has already been highlighted, employees are expected to replicate their leaders' behaviour and hence, widely share information with their colleagues given that their line manager effectively coaches them and thus, shares an abundance of information with them. Nevertheless, it is possible that some employees act in a way that is unfavourable for the rest of the team and hence, they may share less information. Under this line of reasoning, although they maintain high-quality exchanges with their managers and they are coached effectively, they may not perceive that information is extensively shared in the organisation, since, they may not widely share information themselves. As might be expected, their perception of information sharing is also related to the behaviour of the rest of the team members. Hence, although they may share a lot of information themselves, given that their fellow colleagues do so, their perception for information sharing in the organisation may be positively altered. On the other hand, those employees with high-quality exchanges with their manager who receive effective coaching and in addition act in a way that promotes team effort and gains are more likely to share information with their fellow team members. Hence, they may perceive that information sharing is wildly practiced in the organisation. Naturally, their perception also depends to a great extent on their behaviour of their fellow team members.

Having explicated the findings of the data analyses of the thesis, table 6.1 summarises the outcome of the hypotheses examined. The next section elaborates on the theoretical contribution of the present study.

TABLE 6.1 Overview of hypotheses testing

No.	Hypothesis	Outcome
1	An employee's learning goal orientation is positively related to the perceived effectiveness of managerial coaching.	✓
2	The quality of exchange between a manager and an employee is positively related to the perceived effectiveness of managerial coaching.	✓
3	Manager's learning goal orientation is positively related to perceived effective managerial coaching.	✗
4	Manager's learning goal orientation moderates the relationship between an employee's learning goal orientation and perceived effective managerial coaching in such a way that the relationship is stronger when the manager scores high on learning goal orientation.	✗
5	Perceived effective managerial coaching is positively related to individual task performance.	✗
6	Perceived effective managerial coaching is positively related to information sharing.	✓
7	The average quality of managerial coaching conducted to the members of a work team by their manager is positively related to individual perceptions about information sharing.	✓
8	The average quality of managerial coaching conducted to the members of a work team by their manager is positively related to team performance.	✓
9	The average quality of managerial coaching conducted to the members of a work team by their manager is positively related to individual task performance. This relationship is stronger than the positive relationship between managerial coaching per se and individual task performance.	✓
10	Effective managerial coaching mediates the relationship between the quality of leader-member exchange and perceived information sharing.	✗
11	Information sharing as perceived by the individual employee mediates the positive relationship between effective managerial coaching and individual job performance.	✗

Note: Table continues to the next page. ✓ = Hypothesis supported, * = Hypothesis partially supported, ✗ = Hypothesis not supported

6.5 Theoretical contribution

The previous section discussed the findings of the examination of the hypotheses and highlighted the underlying rationale and theories that substantiate the detection of significant or non-significant relationships. Against this background, the present section explicates the theoretical contribution of the thesis. The aim is to display the way in which the present study extends the management/leadership literature in general and coaching literature in particular.

The major contribution of the thesis is the identification of a significant positive relationship between the team-average quality of managerial coaching and team task performance. Indeed, while the majority of past literature paid attention to team coaching, i.e. coaching that is offered to the team as a whole with the aim to enable the team members to utilise the available resources in a coordinated and task-efficient way (Carson et al., 2007; Hackman & Wageman, 2005; Kets De Vries, 2005; Liu, Pirola-Merlo, Yang, & Huang, 2009; Mulec & Roth, 2005; Reich, Ullmann, Loos, & Leifer, 2009), the present study focuses on one-on-one coaching that is, nonetheless, offered effectively to the majority of the team members. In essence, the objective of both types of coaching is to co-ordinate team members towards the effective achievement of team goals; yet, they differ in the adopted underlying process. Further, although past literature has theoretically highlighted the contribution of team coaching on team effectiveness (Hackman & Wageman, 2005), empirical research has provided little evidence to support this argument. In this regard, the thesis contributes to the team-focused managerial coaching literature by demonstrating that the performance of a team is significantly related to the average effectiveness of managerial coaching in a team. Indeed, as it was discussed in section 2.6.1.3 and 3.3.2, managerial coaching functioning as a team co-ordination mechanism enables the team members to leverage any relational synergies and thus, to work well together and achieve team objectives.

Another major contribution of the thesis is the examination of managerial coaching as a multi-faceted phenomenon adopting a multi-level research design. Indeed, the development of a framework that captures the dual nature of managerial coaching entails the inclusion of not only individual-level, but also cross-level and team-level relations. In doing so, the study merges two different perspectives in extant literature, according to which managerial coaching is a developmental intervention (e.g. Ellinger & Bostrom, 2002; Hawkins & Smith, 2007) and a core managerial practice (e.g. Evered & Selman, 1989; Hamlin, 2004; Heslin et al., 2006). In this

regard, the thesis demonstrates that single-level examination of perceived managerial coaching may only partially appreciate the contribution of the practice in the workplace and thus, corresponds to calls for more integrated workplace frameworks that capture not only the individual learners but also, the social context within which they work and learn (Illeris, 2003; Griffin, 2011). Under this line of reasoning, the model extends the literature on managerial coaching by providing a more comprehensive understanding of the practice. In addition, the multilevel design identifies the thesis within a limited body of multilevel studies on perceived managerial coaching (others include: Agarwal et al., 2009; Liu & Batt, 2010; Mesu et al., 2012; Stoker, 2008). In this regard, it drives forward management research by responding to calls for additional multilevel models that encompass simultaneously relationships at different levels (Chen, Kanfer, DeShon, Mathieu, & Kozlowski, 2009; Chen & Kanfer, 2006; Hitt et al., 2007; Ployhart & Moliterno, 2011).

In addition, the study extends the managerial coaching literature by identifying a significant relationship between the practice and information sharing. This is in line with extant literature on the developmental character of coaching and its capacity in developing competencies (Ellinger & Bostrom, 2002; Hawkins & Smith, 2007; Peterson & Hicks, 1996; Segers et al., 2011; Smither et al., 2003). Indeed, managerial coaching as a developmental interaction requires the provision of information, which may take the form of skills, knowledge and performance assessment and feedback, constructive questioning, and helpful guidance. In turn, as it was discussed, employees tend to imitate the behaviour of their manager (Mullins & Christy, 2011) and thus, the better the quality of coaching they receive, the more they share constructive feedback with each other and thus, the more information sharing they believe that exists in the organisation.

Drawing on social psychology (Allport, 1954), the thesis also hypothesised and empirically tested the relationship between perceived effective managerial coaching and intrapersonal, interpersonal and group. Specifically, it was found that employees' LGO, as a dispositional characteristic at the intrapersonal level, is related to the effectiveness of the practice. Further, support was also offered regarding the relationship between LMX, as an interpersonal-level indicator of the chemistry between the leader and the team member, and the perceived effectiveness of the practice. Finally, although manager's LGO, as a shared team characteristic, was not found to directly impact on the effectiveness of managerial coaching, the results revealed that only when a manager's LGO is low, employees' LGO is related to the

perceived effectiveness of managerial coaching. In this respect and taking into consideration the limited research that exists on the antecedents of effective coaching, the thesis contributes to the advancement of contemporary literature by demonstrating the way in which, certain characteristics relate to the effectiveness of the practice. Moreover, the thesis extends the managerial coaching literature by drawing attention not only to the characteristics of the coach, but also to the attributes of the coachee and of the context within which managerial coaching takes place; thus, offering a more comprehensive understanding of the practice in the workplace.

As discussed in the literature review, the term managerial coaching is indistinctly used in extant literature together with other workplace practices, including mentoring, to describe developmental interactions in general (D'Abate et al., 2003; Gallacher, 1997; Stone, 2007). Likewise, little consensus exists with regard to different types of workplace coaching interventions. Against this background, the thesis contributes to the clarification of the concept and its distinction from other workplace practices by explicating its similarities and differences to other developmental interactions, and also to other workplace coaching types. Further, the thesis contextualised coaching in general as a workplace practice and identified the dual nature of the practice recognising both its developmental and managerial facet. Building on this, it also operationalized the process of managerial coaching and developed a working definition of the practice. In this regard, the thesis advances the extant coaching literature by contributing to the theoretical substantiation of the phenomenon and in addition by unravelling the full potential of the practice; hence, eliminating its characterisation as an other organisational fad.

Further, coaching is usually viewed as a formal workplace intervention (Ely et al., 2010; Mankin, 2009; Ting & Hart, 2010). Nevertheless, the thesis theorised that managerial coaching may be experienced not only as a formal intervention but also as an informal or incidental practice (Marsick & Watkins, 2001). Indeed, the findings demonstrated that managerial coaching was experienced rather as an informal, naturally occurring practice in the participant organisations than a formally set intervention. In this regard, the study extends the coaching literature by demonstrating the informal aspect of managerial coaching, while it also contributes to the limited but growing body of literature on informal workplace learning (e.g. Bednall et al., 2014; Enos, Kehrhahn, & Bell, 2003; Eraut, 2004; Hoffman, 2003; Macneil, 2001).

As discussed in section 1.2, exhibiting coaching behaviour may not be indicative of effective coaching in that a manager may demonstrate the relevant behaviours (i.e. assess the learning needs of an employee, give feedback, set specific

targets and facilitate action) but not effectively perform those actions. In this regard, although extant literature has examined the relation of managerial coaching behaviour to important work outcomes (e.g. Ellinger et al. 2003; Ellinger et al., 2011; Hagen & Gavrilova Aguilar, 2012; Kim et al., 2013; Kim, 2014), the investigation of its effectiveness is limited (Cannon & Edmondson, 2001; Gittell, 2000). Against this background, the study demonstrated the relationship between the perceived effectiveness of managerial coaching and work outcomes, such as task performance and information sharing, and thus not only extends the managerial coaching literature, but also shifts the academic attention to a more sophisticated understanding of the practice of managerial coaching.

Drawing on Puranam, Alexy & Reitzig (2013), the thesis discussed that in knowledge-intensive settings, task division and task allocation as well as reward distribution and information flows are different to blue-collar labour. Specifically, it was explicated that division of labour is not limited to the assignment of simple, repetitive work or well-defined tasks, as is the case with blue-collar work. For example, a line manager may delegate a project as a whole to a knowledge worker, who is held the main responsible for its completion. In this respect, the thesis proposes managerial coaching as an alternative delegation mechanism that enables the line manager to co-ordinate the activities of a team in the contemporary workplace. In this respect, adds to knowledge-worker literature, while at the same time corresponds to calls for more contextualised organisational research (Johns, 2006; Rousseau & Fried, 2001).

Finally, although part of the results may contradict to a certain extent previous findings that reported a positive relationship between perceived managerial coaching behaviour and individual performance (Kim et al., 2013; Stoker, 2008; Liu & Batt, 2010), they shed light on the different dynamics in the workplace. In particular, as discussed in section 6.4.3.1, the employees may perceive that increased instances of coaching behaviour exhibited by their manager helps them to improve their performance; yet, the overall findings of the present study highlighted that perceived managerial coaching is related to individual task performance only when it is offered effectively to the majority of the team members and not only to a selected few. Taking into consideration that the line manager plays a major role in the performance appraisal of the employees (Fletcher, 2001) and hence, in their development and progression within an organisation, the present study extends the managerial coaching literature by adding to the already established discussion on the relation between the practice and individual task performance.

Having reviewed the theoretical contribution of the thesis, the following section elaborates on its practical implications.

6.6 Practical implications

In the light of the findings, according to which managerial coaching as a shared team practice is related to both individual and team performance, the study suggests that organisations and HR departments need to promote the practice in a more holistic and comprehensive way. Specifically, instead of only focusing on the remedial aspect of managerial coaching, they also need to highlight the positive links between coaching as a shared team practice and task performance. This may be achieved in three ways: first, organisations may choose to train individual managers on how to effectively coach employees. Such training includes not only the four stages of the coaching process (i.e. feedback, goal setting, implementation, and evaluation of progress), but also acknowledgement of the dual nature of managerial coaching. Second, organisations may choose to adopt a coaching culture. This is in line with Drucker's (1988: 7) and Evered and Selman's (1989: 16) suggestions and the view that coaching is a core managerial behaviour (e.g. Evered & Selman, 1989; Hamlin et al., 2006; Zaccaro et al., 2001). Yet, the adoption of a new culture is rather complex and time-consuming (Huy, 2001) and thus, it is suggested that organisations follow a leading-by example (Schraeder, Tears, & Jordan, 2004; Yaffe & Kark, 2011) approach, according to which senior managers coach middle managers, who in turn coach entry-level employees. Indeed, Swart & Harcup (2013) found in their study that those managers, who received effective coaching from their own manager, were more likely to assimilate coaching techniques in the way they led their teams and in turn, the team members were more likely to exhibit coaching behaviours with each other. Third, organisations may highlight the significance of effective coaching and its dual nature by incorporating it in the performance reviews of the managers as a behaviour that needs to be exhibited with all the team members. Indeed, Bednall et al. (2014) found that high-quality employee performance appraisals resulted in a positive change in employees' participation in informal learning activities. Taking into consideration that managerial coaching was practiced rather informally in the participant organisations of the present study, performance appraisals could be used as an effective way to convey to the managers the importance of effectively exercising coaching in the organisation.

Further, the findings demonstrated that effective managerial coaching is positively related to information sharing, which is highly important in knowledge-

intensive environments (Drucker, 1988) and its reduction may trigger adverse consequences. Indeed, Černe, Nerstad, Dysvik & Škerlavaj (2014) found that knowledge hiding is not only positively related to a co-worker's mistrust but also negatively associated with knowledge holder's creativity. In this regard, the study suggests that organisations may leverage the positive relationship between perceived effective managerial coaching and perceived information sharing by using the practice as an effective way to induct new employees in a team. Although the accumulated tacit knowledge of a team, i.e. its know-how, is difficult to be transmitted in a distant context, such as a classroom (Bresman et al., 1999), managerial coaching may offer natural, on the job learning that enables the newcomer to adjust quicker in the new environment.

In addition, building on LMX theory (e.g. Graen & Uhl-Bien, 1995; Scandura & Graen, 1984), the findings indicated that due to limited resources, line managers coach more effectively the employees with whom, they maintain good relationships than the employees with whom they sustain low-quality exchanges. Yet, it is when managerial coaching is practiced effectively as a shared coordinating practice that it is related to individual and team performance. Hence, it is prudent to facilitate managers' coaching of all of the team members. This may necessitate additional time allowance on the manager's workload allocation schedule for one-on-one coaching sessions (with each team member per se). Relatedly, it may require promotion to managerial positions only of those individuals, who have undergone coaching training and exhibited effective coaching behaviours with their colleagues. Another way for the HR department to facilitate effective practice of coaching with all the team members and not a limited few is to share cases of best practice within the organisation. Such communications may highlight the team aspect of managerial coaching and make more prevalent its connection to individual and team performance for the managers.

Further still, the study showed that employees' personal disposition plays a significant role in the effectiveness of the practice. Specifically, the findings indicated that coaching might be more relevant for employees with a high rather than low LGO. In this regard, it is possible for managers, who practice coaching with their employees, to trigger the latters' state LGO and thus, enable them to turn their attention to instances of coaching and other types of learning. Indeed, according to Salas, Tannenbaum, Kraiger & Smith-Jentsch (2012), the goals of a training intervention play an important role in triggering the right state GO of an individual. Building on this, although managerial coaching is historically interwoven with performance

improvement and enhancement, the thesis suggests that during coaching managers need to guide their employees to focus and set specific and challenging learning goals. This suggestion is in line with the findings of Seijts & Latham (2005), according to which the individuals with specific and challenging learning goals outperformed those employees who were focused on achieving particular performance outcomes. Another suggestion would be to couple managerial coaching with growth mind-set interventions. For instance, Heslin & VandeWalle (2008) demonstrated that a growth mind-set intervention enabled participants holding an entity theory to loosen their perceptions and accept that intelligence (and therefore, skills and competencies) is malleable, which led them to coach to a greater extent their subordinates. Accordingly, a growth mind-set intervention may help employees with a low dispositional LGO to increase their state LGO and thus, be more receiving of coaching initiated by their manager. Relatedly, attending training on coaching and its benefits for the individual and the team may increase the motivation of the latter to receive coaching from their manager, since "motivation to learn can be enhanced by clarifying the link between training content and learning needs" (Salas et al., 2012: 85).

This section highlighted the practical implications of the findings and identified ways in which management practice may be enhanced. Taking into consideration that the overarching aim of the inquiry (axiology) of the research is to achieve knowledge that is valuable for the social world and contributes to the improvement of management practice, the present section was of substantive importance. Table 6.2 summarises both the theoretical contributions and practical implications of the thesis, while the following section acknowledges certain limitations that need to be considered in order to achieve an unambiguous understanding of the contribution of the study.

Table 6.2 A synopsis of the contribution and implications of the thesis

Contribution	Type	Theoretical	Methodological	Practical
The average quality of managerial coaching in a team is positively related to team task performance. Use of multisource data.	*Novel contribution*	✓		✓
The model highlights not only individual-level, but also cross-level and multilevel relations through the development of a comprehensive, multifaceted, and multilevel framework of managerial coaching	*Novel contribution*	✓	✓	
The average quality of managerial coaching in a team is positively related to individual task performance. Use of multisource data.	*Confirmation of previous findings, replication in knowledge-intensive settings*	✓		✓
Perceived effective managerial coaching is not related to individual performance. Use of multisource data.	*Extension of theory*	✓		✓
Both perceived effective managerial coaching and the average quality of managerial coaching in a team are positively related to perceived employee information sharing.	*Novel contribution*	✓		✓

Table 6.2 A synopsis of the contribution and implications of the thesis (continues from previous page)

Contribution	Type	Theoretical	Methodologic	Practical
The quality of exchange between a manager and an employee is positively related to perceived effective managerial coaching.	*Novel contribution*	✓		✓
Employees' LGO is positively related to perceived effective managerial coaching.	*Novel contribution*	✓		✓
Manager's LGO moderates the positive relationship between employees' LGO and perceived effective managerial coaching	*Novel contribution*	✓		✓
Managerial coaching is both a developmental intervention and a co-ordination mechanism.	*Extension of theory*	✓		✓
Managerial coaching appears as an alternative form of organising employees in knowledge-intensive settings.	*Extension of theory*	✓		✓
Coaching differs from mentoring and counselling primarily in terms of time frame, object of development, and reporting relationship.	*Extension of theory*	✓		✓
Managerial coaching may also be experienced as an informal workplace practice	Extension of theory	✓	✓	✓
Exhibiting coaching behaviour may not be indicative of effective coaching	*Extension of theory*	✓		

6.7 Research limitations

Although the present study contributes to both literature and practice, certain limitations deserve acknowledgement in order to interpret the results more conclusively and guide future research. In particular, the study adopted a cross-sectional research design, and hence detection of causal relationships is limited. For instance, although it was proposed that LMX is an antecedent of perceived effective managerial coaching, it is possible that a reciprocal relationship exists instead of the proposed one, i.e. that perceived effective coaching is an antecedent of LMX. In order to mitigate this limitation, the researcher drew upon previous studies, according to which, LMX (e.g. Bezuijen et al., 2010; Scaduto et al., 2008) and LGO (e.g. Fisher & Ford, 1998; Ford et al., 1998; Schmidt & Fort, 2003) are significant antecedents of the effectiveness of developmental interventions. Likewise, previous research has supported that a leader's behaviour relates to information sharing (Srivastava et al., 2006), and individual (Walumbwa, Avolio, & Zhu, 2008) and unit performance (Dysvik & Kuvaas, 2012).

Further, although data were collected from both team leaders and their reports, it needs to be acknowledged that certain hypotheses include solely self-reported data and thus, common method variance may be present (Podsakoff, 2000). In this respect, the researcher adopted the following strategies in order to diminish any possible measurement bias: firstly, the respective scales were physically separated in the questionnaire; secondly, the scales were measured using different response categories, and thirdly, a CFA was conducted (Table 5.5). Regarding CFA, the analysis demonstrated that a five-factor model yielded the best model fit; hence, confirming the factor structure and discriminant validity of the variables. Besides, previous studies have reported that in the case of common method variance, it is less likely that the analysis yields significant results (e.g. Harris, Wheeler, & Kacmar, 2009; Wall, Jackson, Mullarkey, & Parker, 1996).

In addition, the perceived effectiveness of managerial coaching was measured solely by employee ratings, which subsequently provide employees' perceptions of effective managerial coaching. In this regard, a major limitation of the study is the omission of any control variables that attest for more general perceptions of managerial behaviour, such as employees' trust in management. Indeed, the inclusion of control variables to isolate any variance that isn't attributed to the examined relationship is well established in organisational research (Spector & Brannick, 2011). Having the thesis taken into account employees' trust in management as a control

variable, the findings would have provided more concrete evidence for the predictive role of the perceived effectiveness of managerial coaching. That said, future research on the construct needs also to collect data on general managerial behaviours in order to demonstrate through CFA the discriminant validity of the measures and also, through hypotheses testing the incremental explanatory value of perceived effective managerial coaching.

Moreover, taking into consideration that convenience samples were used and the data are not representative of the whole population of knowledge workers, caution should be applied to the generalisation of the findings. As discussed in the fourth chapter, the participant organisations form instrumental cases (Stake, 1995). Thus, the findings deepen our understanding on the research questions and may be used to provide constructive suggestions to similar type of samples, i.e. entry to middle level knowledge workers in similar type of organisations (Consumer Services, Machinery, Professional Training Services). Likewise, although the results may not be generalizable to the whole population of knowledge workers, the study may offer useful recommendations to organisations, where managerial coaching is practiced informally rather than formally. All in all, additional research in different types of organisations will help validate the findings of the study. Similarly, research in organisations, in which managerial coaching is employed as a formal intervention, will illuminate some of the proposed relationships (i.e. the relation between a managers' LGO and perceived effective managerial coaching), and further increase the generalizability of the findings.

Finally, with regard to blue-collar contexts, the underlying mechanism of managerial coaching remains unclear. In particular, Liu & Batt (2010) found that managerial coaching was positively related to individual performance in telephone operator services, in which social interaction was limited and routinisation of tasks were high, a finding that contradicts the results of the present thesis. In this respect, it is possible that in settings with automated procedures, where employees' individual performance depends more on individual output and less on relational synergies and effective team co-ordination, social interaction with a manager may benefit both hard and soft skills. Certainly, further research is needed in certain blue-collar contexts, such as assembly-lines, where health & safety issues and ISO standards are imperative, since empowering employees to complete -without supervision- a task may involve different cognitive, behavioural and contextual processes.

This section discussed the potential limitations of the study to interpret the findings in a more cautious and attentive manner and also, to direct future research accordingly. Building on the abovementioned, the following section discusses future research directions.

6.8 Future research

Given the cross-sectional quality of the study, future research may examine the proposed conceptual framework by employing different research designs that allow drawing more elaborate inferences. For instance, adopting a quasi-experimental design may assist in establishing causal directions among the variables. Specifically, a research design in which, the data are collected prior to and following a managerial coaching intervention, may increase confidence over the directions among the variables. Alternatively, a longitudinal research design, in which the data are collected at three points in time, may allow testing for reciprocal relationships by adopting alternative path models. A longitudinal study may, also, be adopted to examine the growth trajectories of employees' task performance and perceived information sharing in relation to perceived effective managerial coaching.

Further, although the present study mitigated the limitation of using self-report data to test some of the hypothesised relationships by using proximal and methodological separation of the measurements, future research may also employ data from different sources in order to eliminate any concerns over percept-percept inflated measures (Crampton & Wagner, 1994). For example, in the relationship between effective managerial coaching and information sharing, employees could rate the first variable and the manager could rate the latter. Similarly, in the relationship between quality of LMX and managerial coaching, the manager could report on the former and the employee could rate the latter construct. In addition to this, future research studies may also employ temporal separation, i.e. to introduce a time lag between the collection of the two measures (Podsakoff et al., 2003), as another way to decrease common method bias.

Relatedly, given that the measure of effective managerial coaching was based on employees' perceptions, it is prudent that future research incorporates general managerial behaviours, such as trust in leadership, as control variables when testing the conceptual framework of the study. The underlying rationale lies in that the inclusion of such control variables may isolate any variance that is not attributed to the examined relationships (Spector & Brannick, 2011). In this regard, future studies may

158

not only improve confidence over the discriminant validity of the measure of effective managerial coaching against other general managerial behaviours, but also demonstrate the incremental explanatory value of the measure.

Further, it is possible that perceived effective managerial coaching may be related not only to employees' behaviour and cognition but also to different behavioural and cognitive characteristics of the manager. Indeed, Peecher et al. (2010) reported that coaching subordinates on making audit decisions predisposed supervisors' final overall decisions. Hence, future research may address this issue by investigating the relation of the practice to manager-related outcomes and thus, offer a more inclusive understanding of managerial coaching in the workplace.

As discussed in 6.4.3.1, the findings could not support a significant positive relationship between individual-level perceived effective managerial coaching and individual job performance. Given that this result contradicts previous studies (Liu & Batt, 20010; Kim et al., 2013; Stoker, 2008), future research may focus on the existence of any boundary conditions. For instance, it is possible that employees' perceived co-worker support (PCS) plays a significant role in the abovementioned relationship as a proximal contextual characteristic. PCS may be described as the employees' impression on the amount of emotional and work-related help that is provided by the individuals within a team to each other (Ng & Sorensen, 2008). Although PCS has been found to be significantly less related to important employee outcomes than perceived supervisor support (e.g. Blau, 1981; Cummins, 1990; Ng & Sorensen, 2008), it may moderate the relationship between employees' perceived effective managerial coaching and task performance. In particular, it is possible that in settings, in which employees receive support from their colleagues, they also receive support while undergoing coaching, which may include approval (Stinglhamber & Vandenberghe, 2003) and also, emotional and work-related assistance (Ducharme and Martin, 2000). Consequently, these employees may be better supported to follow through their coaching interventions, and hence it is more likely that perceived effective managerial coaching is related to individual task performance for these individuals, than employees, who receive less support from their immediate colleagues. In this regard, future research on PCS as a boundary condition may shed further light on the relationship between employees' perceived effective managerial coaching and individual task performance.

In addition, according to the substitutes for leadership theory (Kerr & Jermier, 1978), there may be individual, task and organisational characteristics that cancel any leader influences on employees' work outcomes. Relatedly, there may be specific conditions, under which even if the manager coaches effectively all the team members, coaching may not be related to individual and task performance. As a case in point, Wageman (2001) identified team design as a significant moderator of the relationships between coaching and group performance in self-managing teams. Specifically, although the relationship between both positive or negative coaching and group performance was found initially insignificant, when team design was added as a moderator the relationship became significant; thus, revealing the existence of a buffering effect. In this regard, a compelling avenue for future research is the examination of the boundary conditions of different substitutes for leadership in the relationship between perceived effective managerial coaching and task performance. For example, it has been demonstrated that individuals' strong ability and motivation (Yukl, 2012) or high positive self-regard (Nübold, Muck, Maier, 2013) serve as leadership substitutes and thus, it is possible that these conditions may lessen employees' attention to coaching interventions as they may consider them redundant. All in all, the inclusion of different leadership substitutes as moderating variables in future studies may offer a more comprehensive understanding of the construct of managerial coaching and its relationship to task performance.

Another interesting avenue for future research is the examination of the role of both managers' and employees' intrinsic motivation in the effectiveness of managerial coaching. Deci, Koestner & Ryan (1999: 628) described as intrinsic motivation the type of motivation that is inherent to the task and fulfils "the psychological needs for autonomy and competence", while Kuvaas & Dysvik (2010) demonstrated that this type of motivation moderates the relationship between perceived employee empowerment and work performance. Specifically, the latter authors found that the relationship between empowerment and work performance is insignificant for employees with high intrinsic motivation, and significant but negative for employees with low intrinsic motivation. Given that the aim of managerial coaching is to empower employees to perform their tasks effectively and achieve their goals without the presence of the manager (v. sections 2.3.3 and 2.5), these findings may be of significant importance. Indeed, it is possible that intrinsic motivation plays a moderating role in the relationship between perceived managerial coaching and task performance and thus, future studies may address this proposition.

Further, a manager's organisational embodiment, i.e. the identification of the manager with the organisation (Eisenberger et al., 2010), may play a significant role in the positive relationship between the quality of LMX and perceived effective managerial coaching. Indeed, it is possible that those employees, who maintain a good quality of exchange with their line managers and also perceive that their manager embodies the organisation, may find coaching as an opportunity to develop skills and performance that are related to the vision of the organisation and thus, as an effective way to further enhance their career prospects. On the other hand, employees of the in-group, who perceive that their manager embodies the organisation to a lesser degree, may find managerial coaching less effective in developing relevant skills and competencies. Hence, future studies may focus on examining the boundary conditions of a manager's organisational embodiment in the relationship between the quality of LMX and perceived effective managerial coaching.

Finally, taking into consideration that the participant organisations practiced a rather informal type of managerial coaching, further studies are needed to examine the hypothesised relationships in settings, in which there is formal provision for managerial coaching. Indeed, in formal coaching interventions, organisations provide managers with the "tools, training and support" (Salas et al., 2012: 90) needed to coach effectively their reports and thus, coaching may be not only be related to individual and task performance as a shared team practice, but also as a dyadic developmental intervention. Likewise, additional research is needed on different types of knowledge-intensive settings, such as fast moving consumer good companies; professional services organisations and pharmaceutical corporations, in order to further validate the model and the findings of the study and thus, increase its generalizability. Ideally, future research may examine both formal and informal managerial coaching in such settings, so as to provide further support of the present findings and also, shed light on formal managerial coaching interventions.

6.9 Chapter summary

The aim of the present chapter was to discuss the findings of the data analyses in light of the research questions and objectives of the thesis. In this respect, the researcher initially discussed the research gaps identified and specifically, the limited research that exists in extant literature on the relationship between managerial coaching and team task performance. In addition, the researcher highlighted that there is little consensus on the various types of coaching in the workplace and on the

difference between coaching and other workplace interventions, such as mentoring and counselling. Similarly, little agreement exists with regard to the relation of managerial coaching with managing and/or leading behaviours, while attempts to capture the effectiveness of the practice have adopted a rather segregated perspective. Set against this background, the objectives of the thesis were to define managerial coaching for knowledge workers, and thereupon, to examine the antecedents and consequences of the practice. On that account, the thesis developed a working definition for managerial coaching by drawing on both workplace learning and managerial literature; hence, offering an answer to the first research question. In particular, managerial coaching was defined as a one-on-one interaction between a manager and an employee with the purpose not only to help the latter develop and improve SKAOs but also, to delegate tasks to each team member in such a way that the team members may accomplish similar tasks in the future without the manager's presence. Further, adopting a social psychology perspective, the thesis developed and tested a holistic, multilevel framework on effective managerial coaching, according to which the effectiveness of the practice is related to intrapersonal, interpersonal and team processes, while at the same time it relates to employees' performance and perceived information sharing at an intrapersonal, interpersonal and team level. In particular, the findings of the thesis supported that employees' LGO and the quality of LMX are positively related to the perceived effectiveness of managerial coaching, while a managers' LGO moderates the positive relationship between employees' LGO and perceived effective managerial coaching in such a way that the relationship is positive and significant only when a manager's LGO is low. These findings respond to the second research question of the thesis with regard to the antecedents of managerial coaching, while at the same time they extend the coaching literature by focusing not only on the coach's but also on the coachee's characteristics and their interpersonal relationship. Further, these findings contribute to organisational practice by demonstrating that promoting high-quality exchanges between a manager and all of the team members as well as endorsing a learning-oriented environment are both related to perceived effective managerial coaching. In turn, perceived effective managerial coaching was found to relate to important work outcomes both as a dyad interaction and as a shared team practice. Specifically, the results of the study supported that managerial coaching experienced as a one-on-one intervention is related to perceived information sharing. Furthermore, managerial coaching as a shared team practice was found to relate to both team and individual performance, and in addition to employees' perceived information sharing. These findings answer the third research question of the study regarding the consequences of perceived

effective managerial coaching and extend the management/leadership literature by identifying the dual nature of the practice. Further, the findings contribute to an already established discussion regarding the relationship of the practice to individual task performance by shedding light on the dynamics that exist at the workplace at different levels. Moreover, the results advance the coaching literature by inaugurating new dialogue on the relationship of coaching with information sharing and team performance. In addition to the theoretical contribution, the thesis entails also practical implications. Particularly, taking into consideration the significant findings, organisations are called to embrace managerial coaching not only as a one-on-one intervention, but also as a practice that needs to be effectively offered to the majority of the team members in order to leverage its full potential. Managers need to receive training on how to coach effectively their team members, and also, on guiding employees in setting learning rather than performance goals. Further, the development and empirical examination of a multilevel framework on effective managerial coaching advances extant literature by offering insight on individual, cross-level and team-level relationships after having controlled for variance attributable to team membership. Naturally, the thesis encounters a number of potential limitations that future research may choose to mitigate. Specifically, the study is cross-sectional; and hence, conclusions about causality are limited and may be achieved in the future with a quasi-experimental research design. Another major limitation of the study is not having controlled for general perceptions of managerial behaviour, such as trust in management, in order to isolate any variance that isn't attributed to perceived effective managerial coaching. Future research may accommodate this by collecting data on such perceptions and incorporating them in the data analysis as control variables. In addition, some relationships have not been examined for boundary conditions; hence, future studies may choose to examine variables that moderate for example, the relationship between LMX and perceived effective managerial coaching. Further, managerial coaching was not practiced as a formal intervention in the participant organisations; thus, future research may examine the conceptual framework of the study in organisations that have already embraced managerial coaching as a formal workplace procedure. Finally, future research may also focus on the consequences of managerial coaching for managers' behaviour and cognition, while the framework may also be tested in different types of knowledge-intensive organisational settings so as to increase confidence over its generalizability.

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APPENDICES

APPENDIX 1 – Scales for measuring managerial coaching

Ellinger et al. (2009)	Heslin et al. (2006)	Smither et al. (2003)
1. Set expectations with employees and communicate the importance of those expectations to the broader goals of the company. 2. Encourage employees to broaden their perspectives by helping them to see the big picture.	1. Provide guidance regarding performance expectations	
3. Provide employees with constructive feedback.	3. Provide constructive feedback regarding areas for improvement	
4. Solicit feedback from employees to ensure that their interactions are helpful to employees. 5. Provide employees with resources so they can perform their jobs more effectively.		
	2. Help you to analyse your performance	1. Helping you interpret your feedback results by asking questions to uncover reasons for the feedback
	4. Offer useful suggestions regarding how you can improve your performance	3. Offering you useful suggestions, advice, or insights to set goals for development.
	5. Act as a sounding board for you to develop your ideas 6. Facilitate creative thinking to help solve problems 7. Encourage you to explore and try out new alternatives 8. Express confidence that you can develop and improve. 9. Encourage you to continuously develop and improve? 10. Support you in taking on new challenges?	
		2. Helping you link your feedback to your business plan/situation 4. Helping you identify ways to share feedback with your raters and to solicit ideas for improvement. 5. Encouraging you to coach and give feedback to others 6. Contributing to job performance and career development.

APPENDIX 2 – Cover letter

Dear (Participant's Name),

I would like to bring your attention to **The Coaching Project**.

This is an initiative of (Organisation name) in cooperation with Aston University and Miss Margarita Nyfoudi.

We hope that the project results will provide managers with <u>critical information</u> on how to develop and improve their employees' competencies and performance through coaching. This research is purely conducted with the aim of knowledge creation and without any financial purposes. It intends to test management theories in practice and to present the findings in the doctoral dissertation.

Your opinion and view is very important and therefore, we hope that you will participate.

<u>(Organisation name) involvement:</u>
Soon, our external partner, Margarita, will send you an e-mail, which contains a link to the survey. It will take you **15** minutes to complete the survey. The answers will be kept confidential and anonymous. You may withdraw from this study at any time.

<u>Benefits for (Organisation name):</u>
We will be offered a **thorough analysis** of the current situation, a **presentation/slides** and also, **recommendations** based on **best practice** and literature. Moreover, due to the fact that there is a pool of participant companies, we will be offered **a benchmarking report**, based on the results achieved by the rest of the companies in the pool.

The project forms part of the doctoral research of **Miss Margarita Nyfoud**i under the supervision of Work & Organisational Psychology Group researchers at Aston University (UK).

<u>Further information:</u>

There are no known or anticipated risks to participation in this study. Your answers will be confidential and upon no circumstances will be given to a third person. Following the principles of EU Data Protection Directive (1995), the questionnaires are coded and you do not need to write your name or surname on the questionnaire. No one besides the researcher will have access to the individual questionnaires. In any case when results of the survey are presented in organisational reports or academic publications, it will be done in a way that prevents identification of respondents.
Research Workers, School And E-Mail Address:

Margarita Nyfoudi	**Dr. Helen Shipton**
Doctoral Researcher	Senior Lecturer
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Work & Organisational Psychology Group, Aston Business School, SW8015.	Work & Organisational Psychology Group, Aston Business School, SW8012.

APPENDIX 3 - Consent form

Dear (Participant's name),

You are kindly asked to participate in the below survey.

Please, click on the link below to access the survey:

https://www.survey.bris.ac.uk/aston/e116b/

Your participation is valuable and thus, I encourage you to read carefully through the e-mail in order to find out more about the project and the benefits for (Organisation Name).

The survey forms part of **The Coaching Project**, which refers to my doctoral research under the supervision of Work & Organisational Psychology Group researchers of Aston University (UK). The project aims at enabling organisations to understand how the managers may contribute best in the development of their employees. As an external partner, I will provide objective, confidential and academic-level evaluation.

Please, note, the following:

A) The questionnaire is anonymised; it does not ask any questions regarding your identity (e.g. name, job position).

B) All information collected will remain confidential and no data will identify the respondents at any time.

C) No one from (Organisation's Name) or elsewhere has any access to the raw data of the forthcoming questionnaire apart from the principal researcher, Miss Margarita Nyfoudi.

D) Only the principal researcher will process the raw data.

E) The analysis offered to (Organisation's name) will be based on aggregated results, such as: 76% of the respondents find their job tasks exciting. Under NO circumstances will individual answers be made publicly available.

F) The respondents maintain the right to withdraw from this research project at any time, with no further consequences.

> G) The principal researcher has signed an ethical agreement form for all the above, which has been reviewed and approved by Aston University Schools Research Ethic Committee.
>
> H) By clicking on the link above you consent that you have read and agreed to the above information.

For any further clarifications, you may contact me directly via e-mail:
nyfoudm1@aston.ac.uk or telephone: 01212043302.

Kind regards,

Margarita Nyfoudi,

Doctoral Researcher.

Thank you in advance for your participation in the survey.

Further information:

Research Workers, School And E-Mail Addresses:

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APPENDIX 4 – Team member's questionnaire

Read each statement carefully and decide whether or not the statement describes you by using the scales given in each section.

-There are **no right or wrong** answers. Simply describe yourself honestly and state your opinions accurately.

SECTION A

To what extent do you agree or disagree with the following statements?
Please circle the relevant number.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
I am willing to select a challenging work assignment that I can learn a lot from.	1	2	3	4	5	6	7
I often look for opportunities to develop new skills and knowledge.	1	2	3	4	5	6	7
I enjoy challenging and difficult tasks at work where I'll learn new skills.	1	2	3	4	5	6	7
For me, development of my work ability is important enough to take risks.	1	2	3	4	5	6	7
I prefer to work in situations that require a high level of ability and talent.	1	2	3	4	5	6	7
I'm concerned with showing that I can perform better than my co-workers.	1	2	3	4	5	6	7
I try to figure out what it takes to prove my ability to others at work.	1	2	3	4	5	6	7
I enjoy it when others at work are aware of how well I am doing.	1	2	3	4	5	6	7
I prefer to work on projects where I can prove my ability to others.	1	2	3	4	5	6	7
I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others.	1	2	3	4	5	6	7
Avoiding a show of low ability is more important to me than learning a new skill.	1	2	3	4	5	6	7
I'm concerned about taking on a task at work if my performance would reveal that I had low ability.	1	2	3	4	5	6	7
I prefer to avoid situations at work that I might perform poorly.	1	2	3	4	5	6	7

To what extent is your immediate manager effective in:

	Very Ineffective	Ineffective	Slightly Ineffective	Neither Effective or Ineffective	Slightly Effective	Effective	Very Effective
Helping you interpret your feedback results by asking questions to uncover reasons for the feedback.	1	2	3	4	5	6	7
Helping you link your feedback to your business plan/situation.	1	2	3	4	5	6	7
Offering you useful suggestions, advice, or insights to set goals for development.	1	2	3	4	5	6	7
Helping you identify ways to share feedback with your colleagues and to solicit ideas for improvement.	1	2	3	4	5	6	7
Encouraging you to coach and give feedback to others.	1	2	3	4	5	6	7
Contributing to job performance and career development.	1	2	3	4	5	6	7

SECTION B

Please use the following scale to indicate **to what extent you agree or disagree with the following statements**. ***Please circle the relevant number.***

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
Employees engage in open and honest communication with one another.	1	2	3	4	5	6	7
Employees at this organisation have no hidden agendas or issues.	1	2	3	4	5	6	7
Employees share and accept constructive criticisms without making it personal.	1	2	3	4	5	6	7
Employees discuss personal issues if they affect job performance.	1	2	3	4	5	6	7
Employees willingly share information with one another.	1	2	3	4	5	6	7
Employees at this organisation keep each other informed at all times.	1	2	3	4	5	6	7
I can rely on the employees I work with in this organisation.	1	2	3	4	5	6	7
Employees in this organisation are usually considerate of one another's feelings.	1	2	3	4	5	6	7
Employees have confidence in one another in this organisation.	1	2	3	4	5	6	7
Employees in this organisation show a great deal of integrity.	1	2	3	4	5	6	7
There is no 'team spirit' among employees in this organisation.	1	2	3	4	5	6	7
Overall, employees at this organisation are trustworthy.	1	2	3	4	5	6	7
Employees share the same ambitions and vision for the organisation.	1	2	3	4	5	6	7
Employees enthusiastically pursue collective goals and mission.	1	2	3	4	5	6	7
There is commonality of purpose among employees at this organisation.	1	2	3	4	5	6	7
Employees at this organisation are committed to the goals of the organisation.	1	2	3	4	5	6	7
Employees view themselves as partners in charting the organisation's direction.	1	2	3	4	5	6	7
Everyone is in total agreement on our organisation's vision.	1	2	3	4	5	6	7

SECTION C

Thinking about the quality of exchange between your immediate manager and yourself, circle the relevant answer.

Do you usually feel that you know where you stand; do you usually know how satisfied your immediate manager is with what you do?	Always know where I stand.	Usually know where I stand.	Seldom know where I stand.	Never know where I stand.
How well do you feel that your immediate manager understands your problems and needs?	Completely	Well enough	Some but not enough	Not at all
How well do you feel that your immediate manager recognizes your potential?	Fully	As much as the next person	Some but not enough	Not at all
Regardless of how much formal authority your immediate manager has built into his or her position, what are the chances that he or she would be personally inclined to use power to help you solve problems in your work?	Certainly would	Probably would	Might or might not would	No chance
Again, regardless of the amount of formal authority your immediate manager has, to what extent can you count on him or her to "bail you out" at his or her expense when you really need it?	Certainly would	Probably would	Might or might not would	No chance
I have enough confidence in my immediate manager that I would defend and justify his or her decisions if he or she were not present to do so.	Certainly would	Probably would	Maybe	Probably not
How would you characterize your working relationship with your immediate manager?	Extremely effective	Better than average	About average	Less than average

SECTION D

I would like to collect some demographics for research purposes only. Please, tick the relevant answer.

Gender**:**   □ Male   □ Female

Age: □Under 18
□ 18-25

                □ 26-36

                □ 37-47

                □ 48-58

                □ 59+

Education: □ High School

                □ Bachelor Degree

                □ Master Degree

                □ PhD Degree

                □ Other (please specify): ....

Please, fill in with the appropriate information:

How long have you held your current position for? ……. .... Years ....

How long have you been reporting to your current line manager?............................... Years ....

How long have you been working for this organisation? ….. Years ....

Any additional comments?
....…
………
…………………………….……………………………………………….………………………………….

Thank you for your time and participation!

APPENDIX 5 – Manager's questionnaire

The questionnaire is divided into 4 different sections. Section A is related to employees who report to you. Section B focuses on your opinion about yourself. Section C concerns the organisation generally or the team within which you work. Finally, section D features some demographics. There are **no right or wrong** answers. Simply give your opinion honestly and state your opinions accurately.

SECTION A

Please indicate how much you agree with the following statements. Please use the following scale in responding to the items.

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

Each column represents a <u>different employee</u> who reports to you. For anonymity purposes we have used the initials for each employee [see below examples for Pawan Martin (PM) & Laura Brown (LB)]. Write in the box the number that indicates your level of agreement or disagreement with each statement.

	Employee: P.M.	Employee: S.P,	Employee:	Employee:
Likes orange juice.	5	3		
Is scared of spiders.	1	6		

	Employee:	Employee:	Employee:	Employee:
Adequately completes assigned duties.				
Fulfils responsibilities specified in job description.				
Performs tasks that are expected of him/her.				
Meets formal performance requirements of the job.				
Engages in activities that will directly affect his/her performance evaluation.				
Neglects aspects of the job he/she is obligated to perform.				
Fails to perform essential duties.				

SECTION B

Below are statements that describe how you may think about <u>yourself</u> right now.
To what extent do you agree or disagree with the following statements? *Please circle the relevant number.*

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
I am willing to select a challenging work assignment that I can learn a lot from.	1	2	3	4	5	6	7
I often look for opportunities to develop new skills and knowledge.	1	2	3	4	5	6	7
I enjoy challenging and difficult tasks at work where I'll learn new skills.	1	2	3	4	5	6	7
For me, development of my work ability is important enough to take risks.	1	2	3	4	5	6	7
I prefer to work in situations that require a high level of ability and talent.	1	2	3	4	5	6	7
I'm concerned with showing that I can perform better than my co-workers.	1	2	3	4	5	6	7
I try to figure out what it takes to prove my ability to others at work.	1	2	3	4	5	6	7
I enjoy it when others at work are aware of how well I am doing.	1	2	3	4	5	6	7
I prefer to work on projects where I can prove my ability to others.	1	2	3	4	5	6	7
I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others.	1	2	3	4	5	6	7
Avoiding a show of low ability is more important to me than learning a new skill.	1	2	3	4	5	6	7
I'm concerned about taking on a task at work if my performance would reveal that I had low ability.	1	2	3	4	5	6	7
I prefer to avoid situations at work that I might perform poorly.	1	2	3	4	5	6	7

SECTION C

Please use the following scale to indicate to what extent you agree or disagree with the following statements. *Please circle the relevant number.*

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree
Employees engage in open and honest communication with one another.	1	2	3	4	5	6	7
Employees at this organisation have no hidden agendas or issues.	1	2	3	4	5	6	7
Employees share and accept constructive criticisms without making it personal.	1	2	3	4	5	6	7
Employees discuss personal issues if they affect job performance.	1	2	3	4	5	6	7
Employees willingly share information with one another.	1	2	3	4	5	6	7
Employees at this organisation keep each other informed at all times.	1	2	3	4	5	6	7
I can rely on the employees I work with in this organisation.	1	2	3	4	5	6	7
Employees in this organisation are usually considerate of one another's feelings.	1	2	3	4	5	6	7
Employees have confidence in one another in this organisation.	1	2	3	4	5	6	7
Employees in this organisation show a great deal of integrity.	1	2	3	4	5	6	7
There is no 'team spirit' among employees in this organisation.	1	2	3	4	5	6	7
Overall, employees at this organisation are trustworthy.	1	2	3	4	5	6	7
Employees share the same ambitions and vision for the organisation.	1	2	3	4	5	6	7
Employees enthusiastically pursue collective goals and mission.	1	2	3	4	5	6	7
There is commonality of purpose among employees at this organisation.	1	2	3	4	5	6	7
Employees at this organisation are committed to the goals of the organisation.	1	2	3	4	5	6	7
Employees view themselves as partners in charting the organisation's direction.	1	2	3	4	5	6	7
Everyone is in total agreement on our organisation's vision.	1	2	3	4	5	6	7

SECTION D

We would like to collect some demographics for research purposes only. Please, tick the relevant answer.

Gender**:**   □Female   □ Male

Age: □Under 18
               □ 18-25
               □ 26-36
               □ 37-47
               □ 48-58
               □ 59+

Education: □ High School
               □ Bachelor Degree
               □ Master Degree
               □ PhD Degree
               □ Other (please indicate): ....

Please, fill in with the appropriate information:

For how long have you held your current position? …… .... Years ....
How long have you been reporting to your current line manager?............................. Years ....
How long have you been working for this organisation? ….. Years ....
Any additional comments?
....
………
………

Thank you for your time and participation!

APPENDIX 6 - Pattern matrix

Pattern Matrix

	Factor						
	1	**2**	**3**	**4**	**5**	**6**	**7**
Task Performance [Item 2]	.976						
Task Performance [Item 3]	.904						
Task Performance [Item 1]	.835						
Task Performance [Item 4]	.750						
Task Performance [Item 5]	.474						
LGO [Item 3]		.903					
LGO [Item 1]		.805					
LGO [Item 2]		.760					
LGO [Item 5]		.614					
LGO [Item 4]		.522					
Coaching [Item 3]			.902				
Coaching [Item 1]			.877				
Coaching [Item 2]			.855				
Coaching [Item 6]			.843				
Coaching [Item 4]			.834				
Coaching [Item 5]			.771				
Manager's LGO [Item 2]				.900			
Manager's LGO [Item 3]				.895			
Manager's LGO [Item 1]				.874			
Manager's LGO [Item 5]				.774			
Manager's LGO [Item 4]				.652			
Task Performance [Item 7]					.736		
Task Performance [Item 6]					.898		
LMX [Item 1]						.894	
LMX [Item 4]						.873	
LMX [Item 2]						.838	
LMX [Item 6]						.821	
LMX [Item 7]						.811	
LMX [Item 5]						.732	
LMX [Item 3]						.716	
Information Sharing [Item 1]							.805
Information Sharing [Item 3]							.797
Information Sharing [Item 2]							.740
Information Sharing [Item 6]							.655
Information Sharing [Item 5]							.645
Information Sharing [Item 4]							.529

Note: Factor loadings over .40

Extraction Method: Maximum Likelihood.

Rotation Method: Promax.[a]

a. Rotation converged in 6 iterations.

APENDIX 7 - Actual and random eigenvalues

Actual Eigenvalue	Average Eigenvalue	95th Percentile Eigenvalue
7.984581	1.302146	1.435854
4.217673	1.156176	1.242457
3.320381	1.060053	1.148009
3.21731	0.969625	1.049581
2.365751	0.890661	0.982659
2.1848	0.822633	0.893049
1.050367	0.75577	0.823945
0.983345	0.695007	0.754206
0.593839	0.639132	0.709025
0.473505	0.583797	0.63717
0.391824	0.532577	0.587069
0.321376	0.482958	0.536027
0.260253	0.435428	0.478154
0.215712	0.388739	0.437176
0.178319	0.347099	0.398869
0.160571	0.304253	0.349526
0.12777	0.263837	0.300318
0.114916	0.217718	0.261103
0.081108	0.17952	0.212824
0.057901	0.142547	0.18199
0.021521	0.109367	0.147607
0.008312	0.07158	0.106939
0.001137	0.035548	0.075187
-0.016644	0.000344	0.03483
-0.025331	-0.029857	0.00281
-0.040416	-0.062337	-0.02608
-0.05444	-0.094162	-0.064063
-0.067264	-0.128181	-0.095126
-0.073868	-0.159724	-0.138722
-0.07608	-0.189326	-0.163549
-0.111723	-0.217926	-0.187286
-0.121771	-0.244015	-0.224359
-0.128332	-0.273722	-0.248351
-0.137333	-0.303066	-0.283515
-0.150733	-0.329532	-0.309108
-0.160882	-0.356512	-0.333824
-0.17246	-0.384087	-0.366857
-0.202716	-0.415049	-0.395825
-0.220712	-0.452456	-0.427868

Job Characteristics Inventory - Feedback dimension (Sims et al. 1976)

i.   To what extent do you find out how well you are doing on the job as you are working?

ii. To what extent do you receive information from your superior on your job performance?

iii. The feedback from my supervisor on   how well I'm doing

iv. The opportunity to find out how well I am doing on my job

v.   The feeling that I know whether I am performing my job well or poorly

vi. The extent of feedback you receive from individuals other than your supervisor

Supervisory feedback (Jaworski & Kohli, 1991)

i.   Positive output feedback

   a. When my manager thinks my performance is good, he provides me with positive feedback

   b. My manager lets me know when he thinks I am producing good results

   c. When I sell an impressive number of cars, my manager makes it a point of mentioning it to me

   d. My manager gives me a "pat on the back" when he thinks I made a good gross profit

   e. When my manager is satisfied with my sales output, he comments about it

ii. Negative output feedback

   a. My manager tells me when he is upset with my performance results

   b. When my gross profits are low, my manager brings it to my attention

   c. My manager is prompt in letting me know when my output is be- low his expectations

   d. When I fail to meet his sales expectations, my manager indicates his dissatisfaction

iii. Positive behavioural feedback

   a. My manager makes it a point of telling me when he thinks I man- age my time well

    b. My manager commends me when he thinks I'm using the "right" selling techniques

    c. My manager tells me when I deal with customers appropriately

    d. My manager expresses his approval when he sees me going about my job as he expects

iv. Negative behavioural feedback

    a. When my manager thinks I have done something wrong, he lets me know about it

    b. My manager makes it a point to tell me when he thinks I am not using the right selling techniques

    c. When I deal with customers in a way my manager disapproves, he lets me know

    d. My manager would let me know if I didn't demonstrate a new car properly

    e. When my manager doesn't find me working the way he expects, he tells me about it