

**LINKAGES BETWEEN WORK INTENSIFICATION,  
EMPLOYEE ENGAGEMENT AND EMPLOYEE OUTCOMES :  
AN EMPIRICAL INVESTIGATION  
INTO CHINESE MANUFACTURING**

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## Thesis Summary

This research focuses on the intensification of work and its impact on employees' psychology and behaviors in Chinese manufacturing industry. Based on the review of the intensification of work and the importance of work engagement in this intensified work context, the primary research objective is to investigate the relationship between work intensification, work engagement, and employee outcomes (e.g. task performance, job satisfaction, and health and wellbeing). To fulfil this objective, the thesis generates five research questions: (1) How does individual/team work intensification and employee outcomes (e.g. task performance, job satisfaction, and health & wellbeing) relate to individual work engagement? (2) How does the level of individual *Guanxi* affect the linkage between work intensification and individual work engagement? (3) How does individual's job crafting affect the linkage between individual work intensification and work engagement? (4) How does servant leadership influence the relationship between individual work intensification and work engagement? (5) How does team work intensification relate to individual work intensification and work engagement?

To answer these five research questions, seven hypotheses are developed and tested. (1) Individual level work intensification will be negatively related to individual level work engagement. (2) Individual level work engagement will be positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being. (3) Individual level work engagement will mediate the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being. (4) Individual level *Guanxi* will moderate the negative relationship between individual level work intensification and work engagement. (5) Individual level job crafting will moderate the relationship between individual level work intensification and work engagement. (6) Individual

perceived servant leadership will moderate the relationship between individual level work intensification and work engagement. (7) The effect of team level work intensification on individual level work engagement is mediated by individual level work intensification. A quantitative questionnaire-based survey research is designed to collect and analyse empirical evidence. All the scales used in the questionnaires are mature and originally developed in English. A translation-back translation approach is used to develop the questionnaire. A set of multi-sourced and time-lagged data were collected from manufacturing enterprises, and the analysis of measurement validity and reliability, regression analysis of direct and (cross-level) mediation relationships, and the test of moderating effects show that 5 out of 7 hypotheses are supported.

The research findings largely fulfil the objective of the research and answered the research questions. Specifically, (1) Unexpectedly, individual level work intensification is positively related to individual level work engagement. (2) Individual level work engagement is positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being. (3) Individual level work engagement mediates the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being. (4) Individual level *Guanxi* does not moderate the negative relationship between individual level work intensification and work engagement. (5) Individual level job crafting moderates the relationship between individual level work intensification and work engagement. (6) Individual perceived servant leadership moderates the relationship between individual level work intensification and work engagement. (7) The effect of team-level work intensification on individual-level work engagement is mediated by individual-level work intensification.

The results are discussed: particularly, the research of the unexpected positive effects of work intensification on work engagement and the insignificant moderating effects of *Guanxi* on the relationship between work intensification and work engagement gain more attention. The unexpected positive effects of work intensification on work engagement are attributed to possible causes including the better education background and upgraded needs/pursuits of today's manufacturing employees in China or the unique context, which is co-created by the reduction of market demands caused by COVID-19 within the general trend of work intensification and engagement. The insignificant moderating effects of *Guanxi* with supervisors on the relationship between individual work intensification and work engagement might indicate a shift in the role of China's cultural factors that would adjust the effectiveness of Western-style management practices.

Lastly, the theoretical, empirical, methodological and practical contributions are explained in the final part of the thesis. Before it concludes, the limitations of this research are acknowledged and suggestions for future research are offered.

**Key Words:** Work Intensification, Work Engagement, *Guanxi*, Job Crafting, Servant Leadership, Task Performance, Job Satisfaction, Health and Wellbeing

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## CHAPTER I: INTRODUCTION

### 1.1 Research Background

The involvement of employees in an enterprise is often regarded as a source of development and innovation. Research in the mainstream of human resources management (HRM) has continued to show concerns on how work intensification relates to employee engagement and performance, with studies on work intensification revealing that increased job demands can lead to positive or negative employee outcomes. Increased workload can negatively impact physical health (Landsbergis, Chaill and Schnall, 2009; Lu, 2009) and mental health (Shvartsmann and Beckmann, 2015), reduce innovative behaviors (Chang, Hsu, Liou, and Tsai, 2013), create issues with work-life balance (White *et al.*, 2003), and reduce satisfaction and commitment (Applebaum *et al.*, 2000). Conversely, it can also lead to greater innovation (Chang *et al.*, 2013; Janssen, 2000), improved satisfaction and commitment (Applebaum *et al.*, 2000), create little to no change in work-life balance (Macky and Boxall, 2008) and enhance perceptions of empowerment among employees (Macky and Boxall, 2008). These effects have also been found to differ across jobs (Applebaum, 2000).

The overwhelming concern of early research in work intensification from the perspectives of HPWPs (High Performance Work Practices) was placed on the benevolence of the performance accrued. That is, employee outcomes were a factor in all the cases. Particularly, the positive outcomes that accrue from high performance working can be leveraged through the effects of synergy among the reinforcement of practice bundles (Ichiniowski *et al.*, 1997; Becker and Huselid, 1998). Owing to the focus on organizational performance, the likely impacts of work

intensification on employees are often regarded as a mediating factor in the linkages of practices-performance. This implies that intensifying work affects workers through decision ownership, participation magnitude, and empowerment (Whitfield and Poole, 1997). Also, it contributes to internal consistency and reinforces the work environment in an organization.

Every business organization strives to adapt to changes while accommodating the various requirements of the workforce. Organizations face stiff competition to survive which can oblige them to lower prices, reduce costs, redesign their business processes, and even lay off some employees. However, if there is a limitation on the reduction of costs and the laying off of employees, then adopting new approaches to HRM is inevitable if the organization is to survive and prosper. An outstanding factor leading to the HRM adopting the new approaches is the need to develop engagement of employees. Based on this, scholars have published numerous articles calling for increased positivity in approach that centres on the employees as a whole, that is, more employee engagement (Seligman *et al.* 2005; Avey *et al.*, 2008; Luthans and Youssef 2007).

In the last decade, the notion revolving around employee engagement has attracted global interest (Demerouti *et al.*, 2001a; Hallberg and Schaufeli 2006; Saks and Gruman 2011). Although the findings of these studies show slight variation, most of them end up with a similar conclusion: that engaged employees increase employee outcomes which is a crucial resource for the competitiveness of an organization. ‘Engaged employees’ denotes those individuals who give absolute discretionary effort at work, showing high levels of vigour and complete dedication to their job. At the other end of any such scale, lie disengaged employees who are normally disengaged from the motivational factors and become progressively disconnected from work. They lack the energy to work hard and lose enthusiasm too (Perrin, 2009; Bakker *et al.*, 2008).

From the perceptions of most accounts, the engagement of employees is linked to retention, customer services, and affects on profitability, and productivity (Xanthopoulou *et al.*, 2009; Zigarmi *et al.*, 2009). With that, there is still a dearth of knowledge regarding the best ways to stimulate the engagement of employees (Bakker and Schaufeli 2008; Bakker *et al.*, 2007).

In a study conducted for 30 years in the US workforce by Gallup, it was determined that on average, the ratio of employees engaged actively to the disengaged ones in the organization was 1.83 to 1. This may sound like a small marginal difference but can cost the state more than \$300 billion annually in lost productivity (Buckingham and Coffman, 1999). In the industries and premier organizations, the engagement ratio has been noted to approach 8 | :1 with more sustainable practices being enforced to mitigate the negative impacts of the employees that are actively disengaged, while ensuring that the organization is steered towards growth. In terms of performance, Bakker and Demerouti (2008) denote at least four reasons that lead to increased performance in engaged employees compared to non-engaged employees: first, engaged employees are always happy, enthusiast, and have positive emotions; secondly, these employees have improved health; third, these employees develop their own resources both in the job-related and personal categories; fourth, engaged employees normally transfer the capabilities they have to others.

Extensive studies have shown that employee engagement has a positive effect on the performance of an organization (Medlin and Green 2009; Britt *et al.*, 2006). In another study conducted across 50 multinational companies for one year, Perrin (2009) determined that companies with higher employee engagement levels outperformed the other companies with disengaged employees in three financial aspects that involved net income growth, operating income, and share earnings\; he increases were 14.6%, 20.1%, and 28.9% respectively. Harter,

Schmidt and Hayes (2002) in a meta-analysis carried out on 7,939 business units among 36 companies affirmed that engaged employees in a company contribute to enhanced satisfaction of clients, high profits and productivity. Based on the research, the present study never evaluates the influence of employee engagement on employee outcomes since most studies have already proved there is a positive impact accrued. Rather, the focus of this research is on the aspect of work intensification and whether it has positive or negative outcomes on the engagement and performance of employees in the Chinese manufacturing context. Already, there is a need to identify factors that influence intensification to have positive or negative impact in employee outcomes (Cooke, Wang, and Bartram, 2019; Zhao and Wang, 2019). Thus, the current study measures intensification as a predictor of employee engagement and individual performance, and tests several organizational constructs as moderators of the intensification-engagement relationship.

Based on the experience of being a manager of multiple enterprises and one of the co-founders of two manufacturing enterprises in China, the author of this thesis deeply agrees on the descriptions concerned with the intensification of work. From manager's perspective, the author experienced a surge of the number of orders along with the booming of the Chinese economy. The fast growth of consumption gave rise to a great increase of demands from the market, which drove manufacturing enterprises to enhance their productivity: this is particularly the case after 2008, when platform-based e-commerce enterprises started to dominate the market. As a decision-maker, the author and colleagues had to struggle to keep a balance between internal production capability and external demands. In some extreme cases, such as days before 'double eleven', orders flooded in. Factories had to work even 24 hours 7 days a week, with multiple shifts and substantial overtime. Moreover, it has been harder and harder to source



enough qualified employees because of the enhancement of national education coverage and changes in the demographic structure. The former prolonged the time of education that a young citizen would undergo, while the latter saw a enlargement of the number of older citizens and shrinkage of the younger cohorts. As for employees, it has become harder to find a job that requires the 8 traditional working hours a day; this is especially the case in manufacturing industry. College graduates who could easily find office-based jobs previously turn out to work on assembly lines or travel to sell products across large regions. It is not unusual for their overtime pay to exceed their base salary. Of course, money does not pay off the pressure and growth of living expenditure.

From a leader-employee interaction perspective, the author has on many occasions experienced the need to deal with particular pressures on workers, individually or often in complicated combination. For example, some employees were willing to work under intensive circumstances to earn an enhanced income, while others were not. Moreover, the extra pay gained through taking on extra hours or workload cannot directly reduce work-related pressures on an employee. Thus, amongst the proposals brought forward in relation to the achievement of employee engagement is the use of HRM programs to engage them: which normally relates to the process of work organization, while managing the people involved to drive them towards achieving the goals of the organization (Zhang *et al.*, 2012). Nevertheless, there exists a problem in the notion that the leaders of an organization are confronted constantly with the pressing challenge of how to intensify the activities of a workforce while enhancing leader and member interactions.

By 2030, the global economic output share by emerging economies is expected to exceed that of advanced economies by about 60% (Reisen, 2010). Asia is anticipated to remain the

global region that is experiencing fastest growth over the present decade, and by 2015 it was anticipated that a third of the output would be generated globally (International Monetary Fund, 2011). With such a rapid transformation there is an expectation that Asia stands a chance to improve more on its financial and economic output, which would give it a better chance of competing globally through intensifying pressure. This pressure involves more focus on the development of the workforce through work intensification. Previous research has demonstrated the various crucial factors required to develop the workforce (Bakker *et al.*, 2007; Konrad 2006; Harter *et al.*, 2002). However, from the perspective of this study, these factors may vary between different countries, including those in Asia. Therefore, to shed further light on the notion of work engagement from the perspective of work intensification, this study also highlights other factors that may or may not influence the engagement of employees in an Asian setting, with much focus on the Chinese manufacturing companies.

Popular perception would strongly suggest that of all potential examples of the notion of an *economic miracle* in recent or current times, the most salient is China. In the past three decades or so, the country has achieved an annual average growth of 9% and lifted millions of people from poverty while developing a middle class. Since 2004, the country has steadily increased its investment value to over \$562 billion and it continues to attract a larger number of investors. The country has also benefited from the political stability which has seen a successful emergence of socialism with Chinese characteristics. The political and economy changes have impacted dramatically the labor market of China. The notion of lifetime employment, cradle-to-grave welfare benevolence, and an egalitarian pay system have been displaced wholesomely by new concepts such as (but not limited to) career paths, performance incentives,

and the developing of opportunities. The new generation of employees in China are more educated and motivated in their job choices than before (Takeda, Disegna, and Yang, 2019).

The continuous transformation of the production environment seems to challenge the traditional Confucian values, cohesion, and in general the Chinese organizations (Ralston *et al.*, 2018). There is a toppling of long held-traditions along with business and other social structures. As a result, employees continue to experience a sense of anxiety and dislocation. With this in mind, several questions need addressing, such as: Do Chinese employees emerge as preoccupied only with the fundamental pay and benefits derived from their work? Could career opportunity elements and workplace relationships be crucial in the event of decision-making as to whether to work more or fewer hours? Can western perceptions of work intensification be applied to the Chinese context to increase the engagement and output of employees?

Despite the exponential increase in the presence of China in the global economy, studies focused specifically on work intensification in relation to employee engagement and the overall determined employee outcomes seem scarce. The study of Perrin (2006) regarding the Chinese workforce has been categorized as the first of its kind: one of the largest so far in China, it involved around 1,100 workers. From the results, about 8% of the Chinese workers (1 in 12 or so) seemed to be highly engaged at work due to the thriving economy of China and the relatively ‘constructive’ stress experienced; close to a quarter of the participants felt disengaged. Among the participants, about 60% showed that they would like to remain with their employer. Among the team categorized as engaged, and by contrast, about 41% wished to stay in their current jobs. Nevertheless a larger percentage of about 49%, or indeed virtually half those surveyed, seemed to welcome other offers or were already seeking other offers in the current job market. Chinese companies are faced with a dual challenge: how to ease matters for the non-engaged, which may

have a longterm draining effect on performance and productivity, while heightening engagement among the fundamental talents to ensure growth or other goals.

These wearisome findings cannot be generalized to refer to the general workforce of China. It is inconclusive whether the notion of employee engagement is as a result of the ever-changing environment, or a component of some other issue altogether, which in this case is work intensification. To gain a practical understanding, further studies on the notion of work engagement from the perspective of work intensification among employees need to be looked at with a strong and specific focus on Chinese companies. Only then it will be possible for employers to become acquainted with the relative significance of the driving forces of engagement (job resources) and execute optimal and effective strategies.

The motivation that led to this research was the need to further and broaden the understanding of the factors influencing work intensification, to predict work engagement and performance in Chinese manufacturing. Indeed, there is dearth of publications addressing the relationship between work intensification and engagement and performance in employees. The study provides evidence from primary data and an analysis of the contextual setting that is incorporated into the work intensification and employee engagement framework using the job demands-resource model (Bakker and Demerouti, 2014). In the subsequent parts of this chapter, the objectives of the study are outlined. Moving on, there is an articulation of the rationale of the study. An explanation of the study's significance then follows, in the context of the business sector and with specific reference to China. In the final part of the chapter, the structure of the thesis is presented.

## 1.2 Study Objectives

The primary motivation for this research is to investigate further, and broaden the understanding of, the factors that impact work intensification to predict work engagement and performance in Chinese manufacturing. Along with the primary aim, three important aspects will be investigated, *i.e.*, a) the influence of social context on work intensification practices and employee outcomes, b) the adoption level of work intensification practices and impacts on employee engagement and job outcomes, and c) the possible implications of empowering leadership practices on work intensification and employees' outcomes of employee outcomes. Based on these, the study addresses the following broad research questions:

**Research Question 1:** How do individual/team work intensification and employee outcomes (*e.g.* task performance, job satisfaction, and health & wellbeing) relate to individual work engagement?

**Research Question 2:** How does the level of individual *Guanxi* affect the linkage between work intensification and individual work engagement?

**Research Question 3:** How does individual's job crafting affect the linkage between individual work intensification and work engagement?

**Research Question 4:** How does servant leadership influence the relationship between individual work intensification and work engagement?

**Research Question 5:** How does team work intensification relate to individual work intensification and work engagement?

### **1.3 Study Rationale**

This study's rationale is discussed in four critical dimensions that involve: theoretical importance, treatment of methodology, practical implications, and its importance in the Chinese manufacturing context. The following sub-sections provide a discussion of each subsection.

### **1.4 Theoretical Significance**

#### ***1.4.1 The Dearth of Studies Regarding Organizational Behavior Positivity***

There has been much emphasis on the negative effects, leading to a neglect of the potentially positive effects derived from work. That is to say, research has concentrated on the origins and impact of the negative results, such as stress and burnout, while relatively little attention is paid to building and exploring positive organizational behavior (Schaufeli and Bakker 2004; Hirschfeld and Scotter II, 2019). Focusing on the effects that cause negativity, such as staff turnover, burnout, and job stress, there is need to adopt a strategy that enhances coping and resilience while also solving such problems directly. Apart from developing the coping strategies of problem-solving, however, it is important to identify the positive behavior impacts on behavior at work and suggest a focus that would improve employees' workplace performance. Arguing from the perception of Seligman and Csikszentmihalyi (2000) regarding the positive psychology movement, the engagement of employees seeks the acquaintances regarding the conditions in which employees flourish at work. The study of Seligman and Csikszentmihalyi later inspired that of Bakker and Schaufeli (2008) who examined the impact of work practices and the reasons for employee engagement. Their study contributed to the positive organizational behavior through evaluating the various mechanisms by which the emergence of engagement occurs.

#### ***1.4.2 Leadership Role Changes That Impact the Behavior of Employees***

This research has a valuable potential to contribute on the implications of leadership practices, with regard to employee engagement. Organizations invest heavily to train their employees: for instance, the US training industry in 2003 discovered that 85% of companies provided their leaders with training (Gavin, 2003), while in 2007, approximately USD 821 million was allocated to cater for leadership training in the US (Anderson and Brennan, 2008). These statistics indicatively quantify the actual significance accorded by organizations to their leadership roles; high efficacy in leadership is crucial for if an organization wishes to have competitive advantage (Judge, Bono, Ilies and Gerhardt, 2002). Due to the relevancy of the various phenomena at work, it is becoming important to increase the use of autonomous work roles and other efforts to empower employees which consequently modifies the roles of leadership in various organizations (Druskat and Wheeler, 2003; Arnold *et al.*, 2000). In order to continue surviving in a dynamic environment, organizations require their leaders to adapt to the constant changes in roles that elicit positive responses while increasing the output performance in their subordinates. Consequently an organization keys in more efforts to empower their employees, since such empowering may contribute to the necessary leadership needed to help teams perform optimally, and individuals increase their work engagement and fulfil the goals of the organizations. The empowerment advocates (Spreitzer *et al.*, 1999; Bowen and Lawler 1992) denote that both the employees and the employer enjoy the benefits of empowerment. Leadership empowerment increases the intrinsic motivation of employees so they become energised and more meaningfully engaged in their work. Despite the empirical evidence regarding the adoption of empowerment, Argyris (1998) and Jones (2012) criticized the concept of empowerment, arguing that it is an illusion. In the pursuit of clarity on this pressing dichotomy, research has

explored the association between leadership empowerment and employee engagement, and deduced that hitherto, since cogent evidence remains sparse, it might not be easy to gauge how, nor to what extent the employee behavior is affected by leadership empowerment.

#### ***1.4.3 The Relevance of Work Intensification***

This study concurs as to the likelihood that human resource practices play a crucial role in employee engagement. The outcomes of previous research regarding employee engagement, specified the job resources that would induce the engagement of employees (Schaufeli, Bakker and Van Rhenen 2009; Bakker *et al.* 2007; Bakker, Demerouti, De Boer and Schaufeli 2003). The human resource practices are essential as they motivate the employees through job resource provision. In line with the autonomy concepts and flexibility with the work systems, work intensification includes a focus on the empowerment of employees, and the provision of relevant knowledge and information, as well as rewarding achievement and delivery enabled by these. These are the most prominent resources that employees require to become engaged. Wright *et al.* (2001, p. 875) articulated that a single increment in the standard deviation regarding the adoption of work intensification can lead to an increased performance of up to 20% across a company. However, besides the research of Konrad (2006) there has been no other research carried out to correlate work intensification and employee engagement through the provision of high involvement work practices that develop positive attitudes and beliefs associated with employee engagement. The most popular employee engagement model, by Schaufeli and Bakker (2004), centres on job resources availability and the effect that job demands impose on the engagement level of employees. This model, however, fails to acknowledge other such crucial and pertinent aspects as the sophisticated process of recruitment and selection, communication, grievance procedures and job security, which in one way or another comprise the main elements of work



intensification (Becker and Huselid 1998). This study aims to evaluate other factors that have influence on employee engagement: that is, the various aspects of work intensification such as *Guanxi*, etc. that could have an impact on the engagement level. As a result, the current job resource model used in this study has been refined to include these factors and how they relate to the engagement level.

#### ***1.4.4 Societal Role in Context***

A good society enhances thorough and beneficial intermingling among its people, in what Chinese refer to as *Guanxi*. The study of this is crucial, since little attention has been paid to the role of the society in the context of human resources practice and socialization and the impact of these in turn on employee engagement. It is true that a significant amount of research concerned with employee engagement has only been conducted in the Western nations, with a common assumption made in general regarding the findings (Demerouti *et al.*, 2001; Bakker and Van Emmerik 2006; Maslach and Leiter 2008). Since the 1990s the HR function has evolved in the Asian region; nonetheless, such evolution has only broadly covered China and India as the two major economic powerhouses in the Asian region. As a result, there is a paucity of investigation into the development of HRM in other Asian countries. In the existing studies on work intensification, the major aspect of societal context is often ignored, leading to lack of knowledge of the behavior of the emerging markets. Bruton and Lau (2008), in their research that reviewed the various management systems in Asia, determined that amongst the 30 nations regarded as Asians, only 14 of them (*i.e.* just under half) had been examined in the top journals. China and possibly Japan have received much attention in most research as they are dominant economic players in the Asian continent. Nevertheless, the drivers of this dominance, in terms of

intensification of work and how it motivates the employees to indulge in engagement while increasing employee output, remain under-researched.

It is in the context of this milieu that the author was encouraged to study the Chinese manufacturing companies from such a perception of work intensification and employee engagement. The study adopted the term ‘human resource management’ in the broadest of senses: there is a need to define HRM when relating to HR practices in low-profile countries, including the general question of whether it exists and the variations of the model (Budhwar and Debrah, 2001). China as part of Asia exhibits to some extent the influence of a multi-ethnic society that can influence socialism and other political contexts. Given that it is a multi-religious nation including Catholic Christianity, Taoism, Buddhism, and Islam, it is worth acknowledging that both religion and politics have roles to play in influencing human behavior, motivation, commitment and engagement. Thus, there is need to conduct a further investigation in the role of these factors..

#### ***1.4.5 The Mainstream Single-Level Limitations and Conceptualization of Employee Engagement***

The current study tries to develop a theoretical contribution through acknowledging the limitations that come with mainstream conceptualizations of the single-level that is associated with employee engagement. The aim is to adopt a multi-level approach that identifies the crucial factors contributing to an individual’s work engagement. Past research surrounding the HRM aspects has primarily been conducted from the perception of function with little linking of the disciplines (Wright and Boswell, 2002). There is a need to note that HR practices and policies never exist in isolation in an organization. Through employing different perspectives, the current study by no means argues that all the relevant variables are determined. Instead the study

explores the employees' perception in permitting the researcher to identify the significance of the HR practices that can elucidate the process through which they enhance work intensification while also optimising employee engagement. In relation to the new form of work organization, two concepts increasingly emerge: empowering leaders in terms of behavior and work intensification, and the effects these have on the engagement of the employees. This concept gives a presentation of the micro-institutional environment in an individual form and some level factors of an organization. Focusing on the macro level, a factor of the society such as *Guanxi*, it is worth examining the effects it has on engagement.

### **1.5 Methodological Significance**

In the existing corpus of research concerning employee engagement, almost every known investigation has been conducted from the perceptions of positivism. Such studies have discussed the various theories behind engagement and established constructs that determine the possible causes of employee engagement (May, Gilson and Harter, 2004; Rothbard, 2001; Sonnentag, 2003). The causes identified are often arrived at through developing different hypotheses. The variables defined are then used to deduce the findings in the best way that can give a prediction of engagement. Researchers should always explore the potentialities that arise from social observation in order to gain a deeper view (Reiss, 1971). This study has used a questionnaire to collect data, in an exercise seeking data for 100 work teams listed by manufacturers by using related existing scales and then performing a cross-level analysis on both individual and team level. in order to gain insights regarding the experiences of the employees at work and to understand the processes that lead to different levels of employee engagement through the mediation models.

## 1.6 Practical Implications

There are three practical implications of this study. First, there is the need to examine how other countries use the concepts of employee engagement, particularly the non-Western countries such as China. The implications from this research may assist a developing country, particularly its government, the HR departments and policy makers, in shaping strategies to promote efficacy in engaging the workforce while intensifying work.

The second practical relevance of this research is that because it centres around HRM in terms of work intensification and its impacts on the engagement of the employees, as yet a sparsely researched area, then the present research will provide significant knowledge regarding the variables of HR that may assist the managers to understand the factors leading to employees' engagement/disengagement in a work environment. Much intensification leading to employee disengagement is likely to cause a detrimental performance in the employees' output. By looking at the various levels of HR input, this research aims to explain in detail the factors that may assist the managers to embrace proper techniques for managing their organizations, and understand how these techniques can enhance work intensification while promoting engagement, and thus employee outcomes. Any organization has a crucial function in providing an environment that boosts the individual employees' potential to maintain output efficiency. Without much understanding in this area, it would be almost impossible for the managers to create or evolve effective strategies for the organization.

Lastly, this study stresses the importance of HRM and employee outcomes in the Chinese manufacturing context. Rapid and recent advances in technology have made it essential for companies to adopt proper changes in the workforce in the manufacturing area (Dirks and Ferrin, 2002). In recent decades, the structure of employment in manufacturing companies has changed

to reflect the need of upgrading skills and the implementation of other changes that position the employees in different niches (Hunter and Katz, 2012). Various developments have contributed to changes in the profiles that used to apply regarding traditional jobs. A review of publications has demonstrated that most studies revolving around the HRM in the manufacturing companies have centred mostly on the experience of Western nations, with little focus on Asian countries such as China (Haipeter *et al.*, 2012; Hunter and Katz, 2012).

Among the major shifts in research surrounding HRM in the last two decades and those to come, there will be a need to stimulate and consolidate interest in the high-performance systems of HR practices into what would be considered as work intensification (Martin and Moldoveanu, 2003). Currently, China is being faced with the challenge of maintaining organizational growth and renewal while pursuing excellence in method and output. In the light of available research, there is need to explore how particular HR initiatives and innovations impact organizations in the Chinese manufacturing sector, together with the spread and speed of adopting high-involvement among organizations. Thus, the following are the two reasons why this research is crucial; 1) to evaluate the potential relevance of studying the western concept in the context of China, and 2) to contribute intellectually to the HRM studies in Chinese organization in respect of how they determine employee engagement and performance.

## **1.7 Thesis Structure**

The thesis comprises five chapters. Besides Chapter 1 as an introduction, the other chapters expected to contribute to this thesis include:

Chapter 2, presenting the literature review surrounding the topic. Matters pertaining to theories, and conceptualizations are given from an eclectic approach in this chapter. Such approaches focus on the various theoretical debates that relate to employee engagement and

work intensification from the perspectives of HRM practices. The chapter begins by exploring the sociological perspectives that define work and then considers employee engagement and the psychological perspectives behind it. The chapter then continues to explore the perspectives of employee engagement and outcomes. Moving on, the chapter then reviews the job resource model and how it is related to work intensification. Finally, the chapter reviews the social aspect of employee engagement from the perception of *Guanxi*. Throughout the literature review, actual references or potential relevance to Chinese manufacturing are emphasized, along with other factors that may influence employee engagement. Another major section of the chapter outlines the Chinese context of the study from the notion of manufacturing. The aim of this part is to give relevant information regarding the manufacturing companies of China in terms of the HRM and engagement. A high-performance approach is also described in this chapter.

Chapter 3 elaborates the methodology used in the study. It begins with explanation of the research paradigm, the choice of a paradigm, and rationalization for using it. This is followed by the context of the research, methods and data analysis techniques and results, which are then followed by the ethical considerations.

Chapter 4 introduces in detail the data analysis procedures and their results. The research first conducts CFA to examine the structural validity of each variable measurement. Cronbach's alpha value is calculated to test the reliability of the data. Results indicate good validities and reliabilities. It then uses multiple regression analysis to test the proposed hypotheses. According to the results, 5 out of 7 hypotheses are supported by the empirical evidence: in other words, the empirical evidence supports most of the conceptualizations of the thesis.

Chapter 5 presents the findings and discussion on the same. The study results highlight how manufacturing companies can be affected by leadership roles, HR practices, personal resources,

and political and/or economic contextual factors such as socialism. A complex interplay seems to be evident regarding the linkages between leadership empowerment, HR practices, and employee engagement. The results show the effects of work intensification on employee engagement. The personal factor of socialism in terms of *Guanxi* is identified and accounted for in this section. At least in this section the results portray the relationship between leaders and employees, within the perception of enhancing engagement and employee outcomes.

Finally, chapter 6 presents the conclusions, implications, and limitations of this research. The concluding chapter presents the key conclusions from the findings and relates them back to the original research questions. After discussion of the theoretical aspects, methodology and the practical contributions of the study, the chapter finally sums up by providing a consideration of the limitations of the research and the need for further research in the future.

## CHAPTER II: LITERATURE REVIEW

### 2.1 Introduction

This chapter introduces a research model, based on which the empirical investigation will be designed and research questions answered. Specifically, the research model identifies the key concepts/constructs focused upon in this research, including work intensification at team and individual levels, individual work engagement, individual performance (*e.g.* task performance, job satisfaction, and health and wellbeing). It also focuses on the role of contextual factors including job crafting, servant leadership, and employee's *Guanxi* with supervisor. Moreover, this research model also specifies the relationships between the constructs in accordance with the research questions of the thesis. The relationships between individual work intensification and individual performance (*e.g.* task performance, job satisfaction, and health and wellbeing) *via* individual work engagement are related to research question 1. The proposed moderating effects of *Guanxi*, job crafting, and servant leadership on the relationship between individual work intensification and work engagement are associated with research question 2-4. The relationship between team work intensification and individual work engagement *via* individual work intensification is associated with research question 5.

Based on the research model, this chapter further reviews the extant literature concerned with key concepts and the theories used in this thesis. The first part of the literature review narrows down the focus on employee work intensification and engagement in China from a sociological perspective of work. In this process, the chapter stresses the specific situation in Chinese manufacturing industry. Then, it reviews the Job Demand-Resource (JDR) model, based



on which, the relationship between individual work intensification and work engagement as well as the moderating effects of job crafting, *Guanxi*, and servant leadership are proposed. It also explores the multi-level nature of work intensification and proposes the mediation relationship between team work intensification and individual work engagement through individual work intensification.

Furthermore, it reviews the resource-based theory (RBV), drawing upon which, the thesis proposes the relationship between individual work engagement and performance (*e.g.* task performance, job satisfaction, and health and wellbeing). It also proposes an indirect relationship between individual work intensification and performance (*e.g.* task performance, job satisfaction, and health and wellbeing) through work engagement.

All parts of this chapter are aimed towards answering the research questions of this thesis. The research model is the theoretical foundation, based on which the focal work intensification- and engagement-related phenomena are conceptualized and will be operationalized.

## **2.2 HRM in China: The Phenomena of Work Intensification and Employee Engagement**

The current study looks at how work intensification from the perceptions of the team level and individual level links up with employee engagement and performance. This is viewed in the intersection of various factors such as servant leadership, *Guanxi*, and job crafting that impact the ways in which employee access to job resources and demands (see Figure 2.1). These factors form the job resources that would negatively or positively influence the intensity of work as a job demand thereby affecting the employee engagement and employee outcomes.

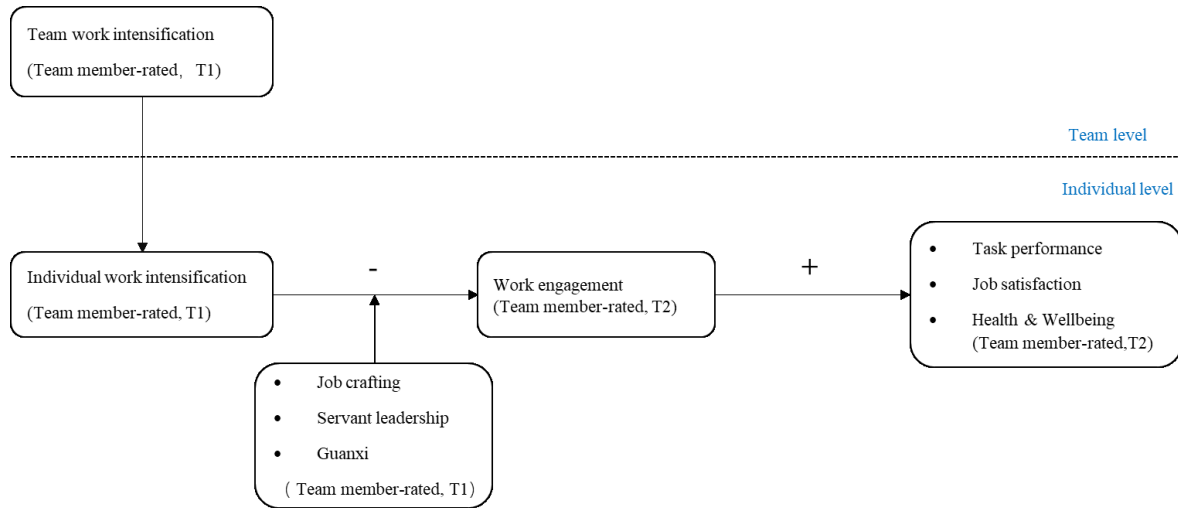


Figure 2. 1: Theoretical Model of the study (Author's Construction)

The theoretical model above depicts relationships between focal variables in this thesis. By proposing and examining the relationships in this model, it can help answer the research questions raised in chapter 1. The proposed relationship between individual work intensification and work engagement is the theoretical specification of relationship question 1: *'How does individual/team work intensification and employee outcomes (e.g. task performance, job satisfaction, and health & wellbeing) relate to individual work engagement?'*. The proposed mediating relationship between individual work intensification and employee outcomes, including task performance, job satisfaction, and health & wellbeing is also related to research question 1 of this thesis. The proposed moderating effects of *Guanxi* on the relationship between individual work intensification and work engagement is associated with research question 2: *'How does the level of individual Guanxi affect the linkage between work intensification and individual work engagement?'*. The proposed moderating effects of job crafting on the relationship between individual work intensification and work engagement is associated with research question 3: *'How does individual's job crafting affect the linkage between individual*

*work intensification and work engagement?*’. The proposed moderating effects of servant leadership on the relationship between individual work intensification and work engagement are associated with research question 4: ‘*How does servant leadership influence the relationship between individual work intensification and work engagement?*’. The proposed relationship between team work intensification and individual work intensification, as well as the mediating effects of individual work intensification between team work intensification and individual work engagement are aimed to explore, and used to examine, the logics associated with research question 5: ‘*How does team work intensification relate to individual work intensification and work engagement?*’. Overall, this theoretical model is developed to capture the complexity of workers’ psychological status and behaviors within a multilevel context, where the work has been intensified. It not only strives to describe how higher-level intensification of work drives the work intensification at individual level, which in turn affects the employee’s attitude and conduct, but also attempts to explore how societal, structural and behavioral factors, like *Guanxi*, servant leadership, and job crafting, impact the effectiveness of work intensification.

To specify the relationships between variables, it is important to make clear what the variables mean. Therefore, I have summarized the definitions often used in the literature of the key variables.

Table 2.1: Definitions of key variables in the literature of this research

Concept	Definition	Source
Work intensification	This intensification has taken the form of the pursuit of heightened performance through managerialist drives to: work longer and more	(Darics 2014; McDonald and Thompson 2016)

	<p>pressurized schedules; more immediacy in communication response times stemming from the advent of email and social media; and, the rise of globalization processes which have heightened activity levels</p>	
	<p>Work intensification, then, refers to an increase in work intensity.</p>	(Green <i>et al.</i> , 2022)
	<p>Work intensification is considered as the increase in the effort that employees put into their jobs</p>	(Burchell <i>et al.</i> 2005)
	<p>Green (2001) distinguishes between extensive effort that pertains to work time (longer work time) and intensive effort that pertains to the intensity of effort, which comprises the physical and mental inputs that go into work.</p>	Green (2001); Bathini & Kandathil (2019)
Employee	<p>The degree of involvement of employees into</p>	Ferrer (2005)

engagement	their job.	
	Employee engagement is used to describe employees who are emotionally, cognitively and behaviorally engaged within the work setting	Shuck & Wollard (2010)
	In the context of organizational change, employee engagement can be defined as the employee's active and enthusiastic physical, psychological, and emotional participation in the process of organizational transformation.	Islam, Furuoka, & Idris (2021)
	Employee's involvement, enthusiasm and commitment to their job and their contribution to the organisations, in a positive manner	Gallup (2013)
Servant leadership	Servant leadership refers to a leadership style in which leaders prioritize the fulfilment of their followers' needs	Zhang <i>et al.</i> (2021)

	A holistic approach where leaders focus on the social, emotional, and ethical aspects of the leader-follower relationship, such that the leaders help followers enhance and grow their capabilities and thus, attain their full potential	Liden, Wayne, Zhao, & Henderson (2008)
	A form of leadership in which the leader overwhelmingly respects other human beings and yet still operates to achieve organisational goals.	Slack <i>et al.</i> (2020).
Job crafting	An ongoing, dynamic process rather than a single-time event (such as traditional top-down job design)	Sun <i>et al.</i> (2020)
	Defined as the physical and cognitive changes that employees initiate in the task or relationship boundaries of their work	Zhang <i>et al.</i> (2021)
	Employees proactively redesign their own job to cope with its increasing demands: this proactive behavior is	Audenaert <i>et al.</i> (2020)

	crucial to their well-being at work	
Guanxi with supervisor	A personal and reciprocal social connection, which is the basis for effective collaboration within Chinese society	(Chen & Tjosvold, 2006)
	Captures the supervisor–subordinate non-work-related personal ties, acting as the contextual condition.	He <i>et al.</i> (2019)

### 2.2.1 Sociological Perspectives of Work

Before presenting information regarding HRM in China, I provide an overview about the topic of work in general, given that this is central to my research. The central experience of humans has virtually always been contextualized by work. ‘Work’ is itself a derivation from the Indo-European ‘*werg*’ meaning ‘to do’ (Budd, 2011). In the past, work used to be viewed as a form of burden, deemed to be draining people both physically and emotionally, as it was an economic necessity which denoted that people had to work to earn a living. The definition of Dubin (1958) perceived work as a form of continuous employment in the production of goods and services, with an aim of receiving payback in the form of remuneration. He indicated that in a sociological perspective, only the expenditures of human energy concerned with the production of goods and/or services can be viewed as work. In the light of more recent technical developments, such a notion has become outdated: several instances have been noted where there is no remuneration for work done, yet the actions pursued are still regarded as work. For instance,

non-profit organizations work voluntarily without remuneration being given nor expected. This section attempts to view work from the perceptions of its meaning in pre-industrial times, the changes in its values, and its moral aspects.

In pre-industrial times, enormous workload was undertaken for an individual and the household, with a range of tasks carried to meet the needs of the family unit. Every family had the main goal of achieving self-sufficiency through various activities like being involved in Agriculture. Gradually, the meaning of work transformed in the various lives of the people because of the reorganized production that segregated the workplace from the household as industrialization took hold (Berg, 1987). Subsequently, the theory of neoclassical economics came to view labor as a valuable commodity that could be exchanged for economic quest. Budd (2011, p2) provided a definition of work as human activity that purposefully involves the use of physical or mental exertion undertaken for pleasure but with economic value. The paid form of employment is normally regarded as the central defining feature of work for most individuals. People are always evaluated based on their job positions. Where the world seems materialistic, the individuals are isolated in the perspectives of their work status.

The main circumstances that constrain, enhance or support the material life conditions of an individual are always derived from the perceptions of the values of work. Work values refer to the outcomes of working that people feel the desire to achieve as they work (Frieze, Olson and Murrell, 2006; Wright, Irving, and Selvan, 2021; Zhong, Bao, and Huang, 2021). The perceptual experiences of employees are shaped by the ethos and values in the workplace which seem to impose a direct impact on the behavior and attitude of the employees (Dose, 2011). Apparently, there is a clear distinction in the work values from the perspectives of intrinsic and extrinsic (Ryan and Deci, 2000): extrinsic values centre on the work outcomes *i.e.* the tangible rewards



that are externally attached to the individual such as salary, promotion, incentives, and status; the corollary, intrinsic work values centre on the work processes, leading to an intangible form of rewards mirroring the work interest such as opportunity to be trained, chance to enhance creativity, and autonomous decision making, the willingness to help others and being flexible among others (Fumham and MacRae, 2020).

In the capitalist economies of the western world, people are basically driven to work by economic reasons, thereby engendering a predominance of extrinsic work values. From such a standpoint, the major motive for working is the urge to gain consumer power through earning lots of money (Noon and Blyton, 2002). The people in work end up with higher levels of consumer power and subsequently more breadth and depth of lifestyle choice. Secondly, based on the prevailing importance of the link between spending power and work, earning money seems the prime essential reason why people indulge in work. The notion of extrinsic rewards, such as possession of materials and prestige, is another key factor that urges humans to indulge in work. This can be traced through the writings of Thorndike (1911). In the present world however, emphasis on the extrinsic reward has continued to reduce while that on intrinsic reward is increasing. This can be attributable to the various experiences of life that different generations encounter (Twenge, Campbell, Hoffman and Lance, 2010). Life experiences influence most employees' attitude to extrinsic rewards as they affect the values that each generation establishes at work to realize the rewards. For instance, a generation that undergoes economic hardships, such as prolonged times of financial crisis, may increase their pressure for payment. In the 1950s during the period of baby boomers, working was regarded as a top priority in the advancement of career as people principally lived to work (Lancaster and Stillman, 2003). As a result, these earlier generations became prominent as they gained in reputation, and were hence viewed as

young urban professionals due to the close focus they had on their work, and they were blatantly materialistic (Adler *et al.*, 1984).

Hitherto, many anecdotal reports have consistently shown the major reasons why people pursue work and become engaged in it. Some of the reasons have emerged as being more complex than the mere aim of seeking financial stability (Noon and Blyton 2002). An interesting job comes with challenges and enables individuals to make their own decisions, which is characteristic of intrinsic motivation (Deci and Ryan, 2000). During the 19th century it was reported that employees began to perceive the meaning of work from a different angle (Lancaster and Stillman, 2003; Arnett, 2004): it was revealed that people indulge in work for expressive reasons, such as the intrinsic rewards that can come through the experience of being at work, namely enjoyment, achievement, and satisfaction (Demerouti, Bakker and Fried 2012; Fagan, 2002; Mauno, Kubicek, Minkkiene, and Horunka, 2019). The rising importance of individualistic traits continues to suggest that people seek jobs that interest them since such jobs possess a personal meaning to them regardless of gender. Also, despite their employment status, people still have similar expressive reasons for choosing, pursuing and settling into a job. This mirrors a post-materialistic feature of orientation towards work with greater emphasis on quality of life. Based on this, the prioritisation of materialism in societies that are advanced in capitalism may be waning. Rather than focusing on managerial practices that nourish the skills and improve the knowledge of employees, some organizations have begun to channel their efforts around proper selection and training, among others to focus on the career potential of the employees and their future growth (Friesen and Hibbing, 2016). This is the main driving force for the highly effective work practices that HRM embraces in order to achieve work intensification (Neirotti, 2020).

Another prevalent component of work worth considering from the angle of sociology is the role played by ethics. Implicitly enough, work is ‘good’, and being able to work is morally desirable to any individual regardless of the benefits of finance or socialism. Work is viewed as a virtuous, worthy and dignified activity that people should feel at liberty to indulge in (Noon and Blyton, 2002). In the 17th century, some areas in Europe used to see work as a religious calling based on protestant principles which later contributed to the Protestant Work Ethics (PWE) studies. Work ethic scholars have claimed that the notion of work as a concept that followed ethics centred on four primary themes. Firstly, work was viewed as an obligation where an individual could do his/her utmost to seek paid jobs rather than being idle. There was a desire to be hardworking even if the pay was not satisfying. Those who never did any work suffered condemnation as they were blamed for not living as per their standards (Turner *et al.*, 1985; Dunn and Saunders, 2010). The ability to be at work conferred economic power and provided a form of contribution to society. Secondly, work was viewed as a central activity determining and characterizing the life of an individual. A study carried out by the Meaning of Working international research team (MOW International Research Team, 1987) found that work was the second most crucial aspect to the life of an individual, after their family. Thirdly, work was regarded as a conscientious endeavour with a firm stress on the need to do the job diligently. Individuals were encouraged to key in more effort in their working in order to produce the best outcome. This implied that there would be a need for everyone to manage their emotions, a notion that has been under debate (Fredrickson 2001). Finally, work was viewed as a disciplined compliance that emphasized the employees’ common goals as well as those of the managers. There was need for employees to remain conformed to the values and goals of the organization that the leaders disseminated through policies and culture. It is worth noting that this belief in the

view of work ethic has seemed to decline as materialistic society continues to rise, due to the perceived importance of payment and status. Consequently, most studies under the umbrella of HRM have not looked at the aspect of work in such detail. The ones already done have been carried out in the West where the work aspects seem crucial, for example, pay for performance and advancement in career.

As the complexity of industrialization in society continues to increase, work has been viewed as a means of earning a living. However, there should be no generalization in this image as it only qualifies work as instrumental. Most studies have depicted that even individuals who are heavily compensated, or have other means of living apart from work, still end up choosing to work. With work, an individual gains a purpose in life. As work is a central component to most circumstances surrounding humans, this study acknowledges its significance, investigating the concept of employee engagement because of work intensification. The study looks at how work intensification, arising from the need for organizations to meet goals and employees needing to earn an income, links to work engagement and employee outcomes. The assumption used in the premise is that people become engaged based on the activities, factors, and outcomes that they deem as crucial to them. It seems that work engagement because of work intensification has far-reaching implications for employees' performance. From the above discussions, it is postulated that various factors drive an individual to be engaged, amongst them being work intensification. Thus, there is need to be aware of the different causal factors for employee engagement, and of the various perceptions under the umbrella of the current literature regarding employee engagement and work intensification. Predominantly, it can be inferred that work intensification studies and employee engagement have aspects that are psychological in nature.

As a result, the following section of this chapter looks at the psychological perspectives required to understand employee engagement and work intensification.

### ***2.2.2 The Perspectives of Human Resources***

The concept of strategic HRM came into existence in the 1980s with reference to the explicit connections between the strategies of business and HR. It sought to elaborate the impacts of the strategies of HRM on the framing and enforcement of strategy enforcement (Colbert and Kurucz, 2011). Research into, and within HRM culminates in the identification of issues pertinent to the practices of HR and workforce behavior (particularly employee engagement and subsequent performance of the organization), with a main assumption that HRM is crucial. In this section the role of HRM in determining employees' behavior is explored, together with their consequent engagement level, through explaining the transition in HRM and the misalignment of the intended versus the actual practices in this domain. This review explains the three trends within the studies of HRM. It then continues to review the importance of HR theory in relation to the acquaintances of employee engagement through looking at the resource-based view.

There has been a misalignment regarding how employees view the practices of HR in relation to organizational goals (Paauwe and Boselie, 2006). Thus, the scholars in HR emphasize the necessity of incorporating the perceptions of workers in most studies. Van den Berg, Richardson and Eastman (1999) contemplated that although organizations can have many written HR policies, and the top management can believe that they are practiced, these policies seem meaningless until an individual believes that the policies are significant to his/her well-being. The early researches have neglected to some extent the workers' voice in HRM, leading to a chronic literature gap in the critical research involving HRM (Guest, 2011). This led some researchers such as Wright and Boswell (2002) to point out that there is a need for opening a

‘portal’ that can explore the processes of HR with more focus on the role of employees in HRM. Work intensification is a factor of HRM and therefore this study, by exploring the experiences of employee engagement that arise from work intensification, will develop and articulate fresh perceptions required to understand the complexity of the practices of HRM contributing to various factors such as work intensification.

The theories of HRM draw concepts from affiliate disciplines such as strategic management, organizational behavior, and industrial relations. Boxall *et al.* (2007) employ the notion of analytical HRM to emphasize the key mission of HRM discipline, which is not to propagate claims regarding best practices, but, rather, to determine what the managers really do in HRM and how they accomplish it in relation to their own understanding as well as the beneficiaries of their actions. The overriding concern is whether those practices could have any impact on the engagement of the employees.

Previously, research into HR was primarily conducted from a micro-perspective while focusing on a function, with minimum coordination of the disciplines involved (Wright and McMahan, 1992). Strategic HRM seeks to encapsulate the efforts that demonstrate the causal connection between the HR practices (work intensification) and performance delivered, to gain an understanding of how this relationship occurs (Becker and Huselid, 2006). As a result, numerous theories of strategic HRM have emerged, including but not limited to the resource-based view, institutional theory, and agency theory among others. Three pertinent trends have been observed particularly: 1) the illustration of the links between the practices of HR (particularly work intensification) and employee outcomes; 2) considering the mechanism/s through which this relationship develops; and 3) exploring the boundary effects of HRM-performance relationship.

A fundamental characteristic of most studies regarding HR has been the analysis of the multivariate of the large-scale quantitative research testing the relationship between HR policies and employee outcomes (Cooke, 2001). Table 2.1 illustrates some of the prominent studies and mostly cited works regarding the topic. The table shows that most of the studies have been cross-sectional, based on showing the relationship between HR policies and their linkages to employee outcomes. From the table a clear need emerges clearly to examine the relationship between HR practices and employee outcomes relationships where this is established. For instance, the early studies of 1990s were majorly focused on HRM but with more focus on the job outcomes; moving on, the studies of 1995 and 1997 by Huselid and colleagues focused into studying HRM from the perception of training, its policies and the recruitment processes involved, and how all these affected the general productivity of the organization. Nevertheless, in the 21<sup>st</sup> century, studies in HRM have concentrated more on the breadth of the elements making up HR, such as performance-based pay, and their effects on employee outcomes. As numerous studies have demonstrated the linkage between the practices and policies of HR and increased employee outcomes (Conway and Sheehan, 2003), it is still crucial to note that the area of this study critically adheres to the last two trends: that is, firstly, an examination of where this linkage exists, because of studying employee engagement; and secondly, a multi-level acknowledgement impact on employee engagement. Ferris *et al.* (1999) argued that:

In a more particular way, if there is actually an impact on the systems of HRM arising from a firm's performance, then there is need to question how these occurrences occur and the mechanism through which they manifest themselves. These questions would be the key to the refinement of the theory and the creation of a more comprehensive model to study the relationship between HRM and performance in the perceptions of boundary

circumstances and intermediate linkages. For HRM scholars, such kinds of research should be prioritized (387).

Table 2.2 Key studies in HRM and employee outcomes (Author's Compilation)

Author (s)	Year	Sample/Participants	Dimensions of HRM	Method(s)	Results
Huselid (Journal of Management Academy)	1995	968 senior professionals in HRM in a heterogenous U.S. firm.	Skills and structures: that is, work life quality, communications among others. Motivation leading to performance appraisals and promotion on merit.	Survey	Increased productivity
MacDuffie (Journal of Industrial Labor Relations)	1995	62 plant managers involved in the automotive assembly	Work systems index including work teams, problem solving individuals among others. Policy index HRM comprising training of all forms of employees.	Survey	Increased productivity as well as quality.
Delery and Doty (Academy of Management Journal)	1996	114 company presidents and 216 senior HR managers in U.S. banks.	Training, internal promotion, job specification and measures of strategies.	Survey	Increased return on assets and return on equity.
Becker and Gerhart (Academy of Management Journal)	1996	Meta-analysis study	27 issues surrounding HRM	Narrative	Employee outcomes heightened.



Delaney and Huselid (Academy of Management Journal)	1996	Profit and non-profit heterogenous U.S. firms comprising 590 participants.	Training, Incentive pay, Staffing selectivity, and internal promotion.	Interview through telephone and survey	Organizational and market performance increased.
Huselid, Jackson and Schuler (Academy of Management Journal)	1997	Various heterogenous firms in the U.S. comprising finance, manufacturing <i>etc</i> ; 293 HR executives used as participants.	Strategic HRM involving empowerment and teamwork. Technical HRM involving recruitment and training.	Survey	Increased productivity.
Ramsay, Scholarios, Harley (British Journal of Industrial Relations)	2000	Used unspecific number of questionnaires sent to managers and employees. Nevertheless, the response rate was 80%.	Problem solving groups, job control, recruitment and selection, training, performance appraisal, and diversity management.	Survey	Work performance and the experiences of employees increased ( <i>i.e.</i> labour productivity, quality of products and services among others)
Bae and Lawler (Academy of Management Journal)	2000	138 HR personnel from various firms in Korea.	Empowerment, performance-based pay, extensive training and staffing	Survey	Heightened firm performance.
Cappelli, Neumark (Industrial and Labor Relations Review)	2001	2,516 and 1,847 establishment in both manufacturing and non-manufacturing sectors, <i>i.e.</i> plant and business site managers.	Manager and worker computer usage. Self-managed teams, team training, cross training, and job rotation.	Survey (a longitudinal study)	Reduced labour cost with increased efficiency.
Zachratos,	2005	Involved two studies,	A system of high		

Barling, Iverson (Journal of Applied Psychology)		the first having 138 HR directors and the other 191 employees.	work performance.	Survey	Increased performance safety.
Combs, Liu, Hall, Ketchen (Personnel Psychology)	2006	A total of 38 studies were used.	Compensation in terms of incentives, training, HR planning, teams, and participation.	A meta-analysis study	Increased employee outcomes
Macky and Boxall (International Journal of Human Resource Management)	2007	424 employees were surveyed through questionnaire.	Participation based pay, formal training, merit-based promotion, job analysis in terms of performance, and formal appraisals.	Survey	Job satisfaction was positive with trustworthy management and commitment
Subramony (Human Resource Management)	2009	65 studies were used.	HRM bundles, enhancement of skills, motivation, and empowerment.	A meta-analysis study	Improved outcomes of the businesses in terms of retention, operational performance, and financial performance.
Messersmith, Patel, Lepak (Journal of Applied Psychology)	2011	22 government authorities were used, inclusive of 119 employees and their managers.	Work system with high performance.	Survey that involved both managers and employees.	Improved performance of various departments with job mediation satisfaction and empowerment of the employee

					psychology.
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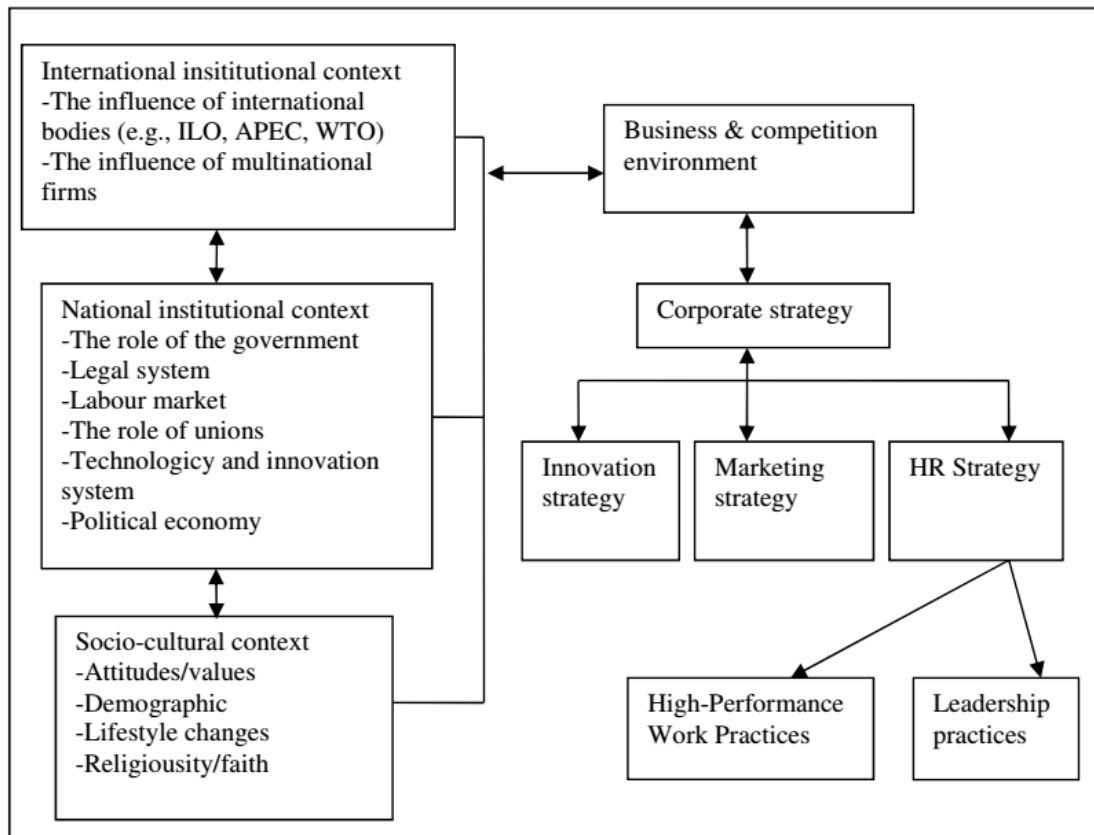
\* Only studies in prominent scholarly journals are included.

In response to the articulation of Ferris *et al.* (1999), most studies have attempted to examine the potential factors that substantially contribute to the full understanding of the linkage between HR and employee outcomes. Numerous studies have managed to demonstrate a consistent relationship between the two variables, although further contributions could strengthen the theoretical understanding of the relationship between the measures (Wright and Nishii, 2006). Becker and Huselid suggested a model indicating that the strategy that a firm adopts determines the HR's system design. From the study, it was shown that such HR systems as work intensification affect the skills and motivation of the employees, which in the long run influences productivity, ability to remain creative and discrete behavior. Finally, the behavior affects the employee outcomes. Therefore, it can be inferred that the behavior of employees plays a crucial role in influencing their employee outcomes. Many research models in the HRM field have centred their notions on this link, but with more attention devoted to job satisfaction and motivation of employees (Kashefi, 2009). Given our increasing awareness and knowledge of HR practices, particularly work intensification and its influence on the ultimate performance of employees, the current study suggests that employee engagement plays a critical role.

Finally, most studies have examined the relationship between HRM and employee outcomes using a micro-approach which involves investigating a single variable of HR practice, such as work intensification and its effects on employee outcomes. Nevertheless, it is important to note that the HR practices never exist in isolation in an organization. The contribution of this study is to use a macro approach, bundling these factors together in order to evaluate HR practices particularly within the Chinese manufacturing context. In proposing the model for the study in relation to HR, the study by no means articulates that all the variables have been determined;

rather, it aims to explore the perceptions of employees to permit the recognition of current HR practice, and how it can be used to elucidate the processes through which such practice contributes to employee engagement.

There is need to acknowledge that the multilevel characteristic of the HRM may cause an impact on engagement. The business environment used to run a business is broadly shaped by a range of cultural, institutional and other factors that occur at the organizational, national, and international levels (Jackson *et al.*, 2014; Zhao, Cooke, and Wang, 2021) (see Figure 2.2). At the international level for instance, an organization could be affected by developments related to such factors as politics, certain regulations and even global market pressure. At the national level of operation, besides the complexion, policy and actions of government: legal systems, the nature of the economy, demographics and labour market, among others could be institutional or circumstantial factors that dictate the environment of a business. Finally, at the organization's own level or societal level, the attitude of individuals, their lifestyles and cultural backgrounds may be used to explain the differences between HR policies from one nation to another (Horwitz, Cooke, Kamoche, 2021).



*Figure 2.1: Organizational strategy and business environment analytical framework (Expanded from Cooke 2008a, p.6).*

### **2.2.3 Human Resource Management in China**

In view of the rising economic powers in the late 20<sup>th</sup> and early 21<sup>st</sup> century it has become important to analyse the role of HRM in China. The HRM function, particularly from a strategic point of view, is an emerging area of study in the transitional economy of China. The topic of Strategic HRM (SHRM) was initially researched in the US where managers have identified that sophisticated HRM can be the primary driving force for the performance of an organization. In the pursuit of substantiating this perception, various researchers have attempted theoretical investigations into how and whether the practices of HRM affect organizational outcomes

(MacDuffie, 1995; Delery and Dotty, 1996). International researchers have evaluated the level of applicability of such US findings in the context of other nations (Takeuchi *et al.* 2007).

The US practitioners and scholars have gradually incorporated the concepts of SHRM into their studies. The Chinese meanwhile, on the other hand, have embraced an unprecedented change in the way they perform their managerial activities directly in the workplace context. In an economy that is centrally planned, management affiliated with labor or the employees have been considered as administrative functions that are driven by a communist government (Warner, 2004). During this era, personnel management was characterized by prolonged employment, with a minimum of practices designed to motivate individuals. As the transformation went on, this traditional mode of management gradually lost its status in China and the government permitted managers to exercise autonomy in their decisions surrounding HRM.

Additionally, Chinese managers were introduced to a lowering of the institutional barriers and the inflow resulting from large and multinational firms, through joint ventures or subsidiaries, the long-familiar western way of HRM which gained legitimacy among managers in China (Zhu *et al.*, 2005). As swiftly as possible, some Chinese companies aligned their HRM with corporate strategy in a belief that this would enhance the performance of the organization and the employees in the market-based economy. Despite all these revolutions, some companies, particularly the firms owned by the state, still maintain the traditional way of managing employees. As a result, a significant variation has been observed in the last decade between the approaches that the Chinese firms use to manage the human resources, broadly on ‘traditional v. modern’ lines (Wang, Bruning and Peng, 2007).

As organizations in China have experienced changes regarding the way they manage employees, academic interest has continued to rise following the HRM consequences affecting

organizations based in the PRC. Some reviews, such as by Zhu, Thomson, and De Cieri (2008) and Cooke (2009), reported an increasing importance accorded in the literature of Chinese HRM to studies concerned with SHRM. Since then, the subject has continued to attract more researchers in a bid to examine the current standing of the research, and to determine effective ways by which this development and its evolving rationale can continue to be moved forward. There is an extant contribution of various research on HRM practices and the performance of the firm in relation to the Chinese manufacturing organizations.

A universal set of HR practices, that should be followed by any given company, has been central to one of the critical and the continuing debates in SHRM. The proponents of these best practices reflect that there is a set of effective HR principles in the organization system of any company, and the more similar and ideal that these practices look, the more likely the organization will realize exponential performance (Huselid, 1995). The high performance work system has been one of the most cited set of practices, believed to deliver superior outcomes to the organization without much focus on the condition. In the study of Pfeffer (1994), it was claimed that even the cost-based contenders, such as Southwest Airlines, operated successfully through the incorporation of high commitment work practices. Pfeffer acknowledged that the achievement of competitive advantage relies on the best practices chosen for the organization. There were some controversies over the definition of components although it was important to point that HPWS can also be referred to high involvement work systems and, in some instances, work intensification. Apart from these components there are others such as activities oriented to quality enhancement, production based on a team-based perception, performance-oriented compensation, securing of employees, and training the employees extensively. In the literature, HPWS and work intensification are treated as one single conceptual entity, even at times being

referred to in a conflated phrase as ‘high involvement work systems’. Various studies have shown that HPWS has a positive affiliation with the performance of the firm and employee engagement, if it is within the range of organizational justice, not only for manufacturing companies but also for other firms using high technology (Collins and Smith, 2006).

As opposed to the view centred on best practices, it is worth acknowledging that HR practices are contingent on the characteristics of the organization. The efficacy of HR practices emanates from the aligning of these contingent factors with the HR system rather than arising from particular HR practices. Moreover, other studies articulate that the link between the performance of a firm and the HRM is moderated by many other factors apart from the characteristics of an organization. These factors include external contextual factors. Empirical studies have shown that the efficacy of high involvement HR practices is moderated by various contingencies in both the organization and environment such as strategic orientation, segments of the target market, characteristics of the industry and the contextual history (Datta, Guthrie and Wright, 2005).

Expounding on the theoretical frameworks developed in the Western world, particularly the US, researchers have explored the relevance of universal, cross-national best practices that can accommodate any circumstance, phenomenon or occurrence. It has then been argued that high performance HR practices have enhanced the performance of the firm with little effect from the geographical regions in which the company operates. The empirical findings have supported this notion in various countries such as New Zealand, Japan, South Korea, and European nations (Horgan and Muhlau, 2005). Some early scholars have, however, questioned the validity of the cross-national concept as applied to US-based SHRM models, since they have found significant



evidence for variables in context: for example culture, and institutional constraints (Kirkman and Shapiro, 2001).

Narrowing the focus to China, it can be contemplated that China forms an interesting area where the topic of HR practices needs re-examining with the potential to extend current debates surrounding the topic. Firstly, there is a difference between the organizational environments in China compared to the economy of the liberal market: in China, there is a less defined boundary between corporations and governments. Nevertheless, marketization has altered the relationship between business and the government in such a way that the government still has a strong influence over many managerial aspects of the organization's economy. Therefore, most companies may lack the autonomy to construct their own HR policies (Wei and Lau, 2008). Additionally non-market factors, for example the relations of the government and business, have been found to have an essential influence on the firm's performance. Based on these discussions, there is a likelihood that the relationship between the performance of the firm and the HR system could be different in the China's transitional economy (Zupan and Kase 2005).

Secondly, the Chinese people have a unique set of cultural values that may influence the cross-national validity of US-based models when studying the relationship between the firm performance and the HR system (Zhao *et al.*, 2021). For instance, Chinese employees may show satisfaction with the hierarchical settings and may work with efficacy under efficient leaders rather than teams that are self-managed. If this is the case, then work systems classified as highly involved, that emphasize the delegation of power regarding decision making with the employees on the frontline, may fail to function in the same way as with other countries that have a culture that is low-power and distant. One early study (Chen, 1995) reported that Chinese employees working in a marketized economy expressed strong preference for compensation systems with

wider pay to the practice of egalitarianism. If these findings gave a clear presentation of the Chinese employees, then there is a likelihood that the efficacy that comes with high performance work practices such as work intensification may not generate positive outcomes in China, because the approach may put more emphasis on team compensation rather than opting for a reduced pay differential (Chen, 1995).

Thirdly, the Chinese have adopted a new set of HR practices imported from an altogether different historical background. Therefore, the similarity in the set of practices may encapsulate different social construction meanings in China compared to other nations (Cooke, Xiao, and Chen, 2021). For instance, in the US, the Tayloristic mass production system was replaced with HPWS, as discussed in an early study by Appelbaum and Batt (1994). In the wake of increased pressures from competition, US manufacturing organizations needed to step up their working systems that followed traditions to achieve a competitive advantage, and to serve their customers better with quality products. Although it would be quite hard to trace the historical origin, some scholars have determined that the HPWS that America used was influenced significantly by the systems of manufacture from other countries, particularly Japan and Sweden (Appelbaum and Batt, 1944). In the light of this context, participatory decision-making and manufacturing using a team-based approach were considered innovative practices that replaced the traditional mass production models. China, however, has pursued a different trajectory. With regard to economic transformation, the Chinese authorities condemned state-socialist HR practices, claiming insufficient sources for its justification. The research based in the Chinese context and in relation to SHRM has been enhanced in three ways. Firstly, there is a notion that HPWS practices may contribute to positive outcomes in an organization. Secondly, the China-based research has provided evidence for the cross-national validity of the models of contingency: particularly, most

studies have illustrated that the strategies used in business to moderate HR performance in China are indeed discernibly related to strategies used in other countries (Kim, 2010). Finally, China-based research has determined several contextual factors of interest that have been examined already in the previous studies. So, the current study extends the understanding of the relationship, already noted, between high performance work practices in the form of work intensification and firm performance. The concept of employee engagement is also incorporated into the research.

There is need to note that the mediating mechanism between a firm's performance and the HPWS it uses has been the focal point in SHRM (Wright and Gardener, 2003). By building on the early findings of empirical research regarding the linkage between a firm's performance and the HR system used, various theoretical models have been brought forward to elucidate the relationship. HPWS is a corpus of practices believed to heighten the performance of a firm through promoting uniqueness, inimitability, and value of the skills and knowledge within the capacity of each employee (Wright, Dunford, and Snell, 2001) and specificity of human capital in relation to the firm (Pennings, Lee, and Van Witteloostuijn, 1998). Additionally, researchers have articulated that HPWS leads to increased performance in an organization through adjusting the nature of the social interactions (Evans and Davis, 2005). These articulations could seem plausible, although other studies have argued that the mechanisms leading to increased performance in firms due to HR systems remain scant (Takeuchi *et al.*, 2007). Some researchers have begun addressing what is referred to as the 'Black Box' tracking the relationship between HRM and the firm's performance. Research by Batt (2002) demonstrated that in service industries, rates of employee turnover mediated the linkage between companies' performance and high involvement work practices. According to Batt, high-involvement work practices are

likely to minimize the rates of employee departure through increasing job satisfaction among individuals and job commitment. With the reduced staff turnover rates, the performance of the firm will increase. On a similar note, Collins and Smith (2006) articulated that HRM practices that show commitment affecting the organization's social climate positively, such that it increases the sharing of knowledge, skills and teamwork. This in many ways enhances performance of a firm. Other research by Takeuchi *et al.* (2007) found that HPWS leads to increased firm performance by improving the human capital and intensifying social exchanges within the organization.

More studies in China have continued to build on this line of research through the introduction of mediating variables that were not included in prior models. Based on the collected data in a service sector such as the hotel industry, Sun and colleagues (2007) illustrated that the HPWS reduces staff turnover and heightens the productivity of the employees; and the relationship is partially mediated by service-oriented organizational behaviors that constitute citizenship. By using a sample that comprised manufacturing firms, Cheng and Zhao (2006) determined that high involvement work practices intensified the uniqueness of the human capital, thereby leading to higher organizational performance. In industries using high-tech, Liu, Liu, and Liu (2007) exhibited that the use of HPWS enhances performance in firms using high technology through increased facilitation of internal communication, thereby validating and boosting creativity, initiative and innovation which are key attributes in that sector. Although the findings of these researchers may not have been validated cross-nationally, they still provide important insights regarding the mediating mechanisms by which HRM may impact the performance of a firm (Wood, 2020).

By recalling that HPWS and work intensification are closely related, since the latter relies on the former for occurrence, it is important to understand the concept of engagement in the Chinese manufacturing context and explore how it affects performance under the broad umbrella of work intensification (Liu *et al.*, 2020). The next section describes the concept of work intensification.

#### ***2.2.4 The Concept of Work Intensification***

Traditionally, work has been regarded as the number of hours an employee spends executing a task on the job. Working hard can be considered as a function of such quantifiable factors as time dedicated and the increasing intensity of effort contributed. The time aspect has been copiously addressed by various scholars (Brett and Stroh, 2003; Fein, Skinner, and Machin, 2017; Fiksenbaum *et al.*, 2010; Rosta, 2007; Piasna, 2020).

The intensity factor, on the other hand deserves attention as a construct that has not yet been so thoroughly researched. Furthermore, no comprehensive theory has yet emerged from the research on work intensity, particularly in the Chinese context. Researchers from different backgrounds and disciplines, using a variety of frameworks, have been working to address the notion of work intensity (Fiksenbaum *et al.*, 2010). With time, work intensity has been categorically perceived as a process solely related to efforts. In this light, it would seem crucial to understand the work effort concept in the view of Green (2001) who articulated it as an ambiguous term, requiring critical examination of its trends, along with a clarification of meaning and methods through which it may be quantified. Firstly, extensive effort can be distinguished as it implies to the intensity of work when it is in progress. Unfortunately, work effort is at times used to imply to either extensive effort or working hours. Green (2001) used these terms and quantified them as unproblematic.

The construct of work intensification may consist of more than one component. According to the suggestions of Green (2004a), pace, effects, and efforts can be integrated in the assessments involving work intensity. Burke *et al.* (2010) theorized that work intensification can be influenced by two groups of factors which could be classified as internal or external. It was also acknowledged that other personal factors may induce intrinsic motivation in the employee, thereby leading to working industriously. In a nutshell, employees seeking to work hard may do so through becoming psychologically inclined, or pursuing an inner drive that can maximize satisfaction and engagement: which, in general, may be coupled with the desire to fulfil both personal needs and the organizational goals, in whatever individual proportion, but to laudable mutual benefit.

Employees are normally concerned with the intensity with which they execute their duties as well as their number of workplace hours. In a case of too little effort, boredom can set in, while with too much effort and exhaustion, there can be stress and vulnerability to health threats, thereby necessitating safety concerns. On the other hand, employers are also concerned, reasonably and proportionately, to optimise the intensity of employees' efforts at their jobs: productivity, and the profits generated, rely on this intensity. Only on very rare occasions would employees and their employers seem in agreement regarding the appropriate magnitude of intensity. As Fairris (2004) argues, employers would want increased work intensification, while employees, on the contrary, would demand less.

By looking at the European Union (EU) member states, it is worth noting that since the 1980s, increase in time pressure has been deemed to influence employees, a trend also maintained in the 1990s. Innumerable conditions have led to heightened work intensification, including among others changes in technology, HRM policies which require high commitment,

and changes in organizational production (Valeyre, 2004). By the year 2000 most employees in various nations globally revealed that they had been exposed to high-speed working with tight deadlines. As a result, by 2003 about 1 out of five employees had been exposed to high work intensification, caused by either speed or short deadlines (Boisard *et al.*, 2003).

Work intensification has occurred quite widely across most organizations and sectors. Nonetheless, the effort increase has to some extent shown greater average for women aged over 40 years and for workers in the public and service sector (Green, 2004). The work intensifications that employees report could be due to exposure to high speeds of working and short deadlines among other factors.; the intensity varies broadly based on the characteristics of the environment and the employee. Work intensification has been studied as a function of various structural features that can be statistically analysed in terms of worker demographics (that is, age and sex), employment status and organization size (Boisard *et al.*, 2003). Most research on work intensity conducted in Asian countries has shown that employees work for longer hours, which affects their work-life balance. This is attributed to the notion that the time required for administrative tasks has increased in these countries.

An exploratory study by Burke, Singh and Fiksenbaum (2008), regarding a newly developed work intensity parameter, the potential antecedents and repercussions, comprised 106 university respondents enrolled for a business course. Data was collected using questionnaires and was then analyzed: the results showed that work intensification was strongly correlated with working for long hours and greater job stress. However, there was no relationship between work intensity and job satisfaction and work engagement. The conclusion from this study was that work intensification reflected an individual's job and its demands rather than organizational factors in general.

In the past years, HRM research has encountered a progressive shift from traditional forms to embrace more flexibility, encapsulation of different skills of employees, organizational participation process, and mechanisms of managerial support (Bauer, 2004). The shift has pursued the increasing acceptance of the domains surrounding HRM as the main source leading to competitive advantage in an organization on the notion of resource-based view (RBV) of the organization (Snell and Wright, 2001). From the perception of RBV, the domains of HRM never form the basis for a sustainable competitive advantage; instead, they are inimitable and crucial features for the workforce that creates a difference in performance (Delery, 1998). This principle has constantly formed the inspiration surrounding work intensification as a potential way of utilizing the human capital pool in an organization.

The concept of work intensification is not bound to a single meaning across scholars: prior researches have managed to point out a varied degree of inconsistency in definition regarding this concept. Some (Macky and Boxall, 2008; Guest and Conway, 2007) have sought to link such inconsistency with the manner in which various scholars analyze the work intensification concepts, without proper theoretical underpinnings. On the other hand, others have attributed the inconsistency to the use of diverse terminologies to describe or define a similar concept; for instance, 'high commitment management' (Gould-Williams, 2004), 'high-participatory management' (Mohr and Zoghi, 2008), 'innovation of activities in the workplace' (Askenazy, 2001), and 'alternative options for the practices at the workplace' (Godard, 2001). Nevertheless, and in general, practices arising from work intensification are thought to be innovative ones as employers aim to develop a committed taskforce that can be empowered through using their discretion in executing their job roles in beneficial ways to the organization (Gould-Williams and Davies, 2005). An underlying assumption in this regard is that work intensification allows



employers to exercise a degree of control over their employees in terms of the operations expected of them and based on a generalized perception that employees form a critical asset of the organization (Hunter and Hitt, 2001). Consequently, work intensification encourages employees to utilize their knowledge, skills, and abilities that are related to work to successfully execute their roles within the organization, which leads to the organization gaining a competitive advantage (Delery, 1998). However, as this happens, there is a concomitant likelihood of unintended negative consequences. There is a significant relationship between work intensification and employee wellbeing: Boxall *et al.* (2014) found that high levels of work intensity increased stress and fatigue among employees, thereby undermining work-life balance. Nevertheless, in the other component of the study that involved high-involvement at work, it was determined that a high level of involvement improved job satisfaction and the work-life balance of an employee.

Research has shown that investing adequately in work intensification can improve the employees' performance in terms of their job outcomes (Pare and Tremblay, 2007), and increase profitability and productivity (Allen, 2005). These researchers have built up their findings based on the notion of Pfeffer (1994) who argued that organizations use a Resource-Based View (RBV) to recognize their domains of HRM as a crucial component towards achieving, success, which may contribute into successful substantial investment of the human resources as a way of realizing a competitive advantage. In a nutshell, the process of achieving efficacy in an organization relies on the ability to develop a human capital pool that is valuable, inimitable, and conforms to the HRM systems with the organization's goals (Beltrán-Martín *et al.*, 2008).

The practices of HRM have been found to be the main stimulant for work intensification. Green (2004) hypothesized that work intensification has been stimulated most importantly by the

enforcement of HR practices. Also, work intensification is measured using subjective survey reports regarding the questions about the changes that occur in the organization based on employees' level of output. Green's report explained both the schemes of employee involvement and the incentive initiatives that seem to elicit great efforts.

Despite the several benefits derived from work intensification, there is still a dearth of research into its support for employee engagement, particularly in the Chinese context. A major reason for the gap could be how previous research has depended on data from the various responses by managers, with very little information touching on employees' own outcomes (Sparham and Sung, 2007). Moreover, the many attempts to encapsulate the employee views regarding the impacts of work intensification have not borne best outcomes as mediating variables rather than measures of actual outcomes (Gong, Law, Chang and Xin, 2009). Any understanding of the effects of work intensification on employee engagement therefore remains insufficient, due principally to these two factors.

Nevertheless, studies into the impacts of work intensification are gradually becoming more prevalent in the HRM literature, based on two broad theoretical perceptions (Harley *et al.*, 2007; Van De Voorde, Paauwe and Van Veldhoven, 2012). Firstly there is the concept of mutual gains arising from work intensification, whereby there are posited to be both beneficial impacts of work intensification on employee attitudes and wellness, and a positive influence on the organization. Admittedly this notion is insufficient in its articulation, failing to take into account other mutual or concomitant gains such as employee engagement and employee outcomes. It fails to address the precise context of this present thesis, which is examining the direct impacts of work intensification on employee engagement and employee outcomes, rather than focusing on the overall organizational context.

Some scholars have already shown the first aspect of mutual positivity that arises from work intensification on employee engagement and employee outcomes (Mohr and Zoghi, 2008; Wood and De Menezes, 2011). Furthermore, there has been exploration of organizational behavior and commitment as well as employee trust arising from work intensification (Macky and Boxall, 2007; Newman, Thanacoody and Hui, 2011). Work intensification creates opportunities for employees to exercise their skills in the most professional way while benefiting from being treated as a valuable asset of the organization. Employees become active in the workplace as they feel encouraged to make use of their knowledge, abilities and skills in executing their roles (Atkinson and Hall, 2011): hence they gain a validating sense of conviction that they are meaningful to the organization, and are prepared to demonstrate a positive attitude and behavior towards it.

A second, amore critical perception of work intensification is built on the claims that its beneficial effects may lead to offsetting of the HRM practices and, in turn, a reduction of in positive attitudes and wellness among employees (Harley *et al.*, 2007). This articulation derives broadly from the theoretical model of labor process (White *et al.*, 2003), according to which, although HRM practices may accumulate many benefits for both the organization and its employees, these benefits could end up being outweighed by the increased job demands and pressure which may generally affect negatively the attitude of the employees and their general wellness (Sparham and Sung, 2007). Where HRM practices aim to heighten work intensification with little regard to the wellbeing of employees, a likelihood follows that the employees will feel exploited as there is increased transfer of high demands of work onto them. Eventually, this will lead to deterioration of their wellbeing and their attitude towards work. Interpreted in this context,

work intensification can take the role of an intermediary variable explaining the possible integration between work practices and poor employee wellness.

Many a time, research on the critical perspective of work intensification has shown signs of being inconclusive. Some early researchers such as Ramsay *et al.* (2000) determined little statistical support for the connection between work intensification and HRM practices leading to more employee engagement and high employee outcomes. These findings were later contradicted by Kroon, Van de Voorde and Van Veldhoven (2009) whose multi-level study found a strong relationship between work intensification and HRM practices. With a particular focus on the employee-level impact, there is need to conduct more research regarding the various mechanisms by which the work effort put in by employees may contribute to desired results, or lead to detrimental consequences as a result of their work intensification.

### ***2.2.5 Specific Impacts of Work Intensification to Manufacturing Companies***

It is worth asking first whether the economic sector matters in the context of work intensification. Essentially it is arguable that there are two contrasting perceptions on this matter. Some scholars have articulated that the effect of the HRM practices on a sector of business may not generalize the settings of an organization, as every organization has a varied approach to its HRM (Harley *et al.*, 2007; Baarspul and Wilderom, 2011). As a demonstration, the HRM strategies that a private sector company adopts vary considerably from those adopted in a counterpart public sector organization. A major reason for such a difference is that private sector enterprises normally work primarily to manufacture and market products with a focus on profits for their stakeholders and shareholders, while, in contrast, public sector entities are normally non-profit organizations working only to provide basic government services to the public in such

domains as infrastructure and maintenance (Baarspul and Wilderom, 2011). Other scholars, nonetheless, acknowledge that the practices adopted in a workplace lead to some effects that occur across the organizational settings if the best practice or work intensification is enforced (Hughes, 2002; Vanhala and Stavrou, 2013). This assumption forms the primary theory underlying the universal approach of HRM, according to which the intensive use of HRM practices produces far-reaching profits for the organization regardless of its sector, scale or corporate strategy. This implies that the question of whether work intensification and HRM practices lead to generalizable outcomes across the settings of an organization, has contingencies based on the set of HRM practices used.

Some studies have theoretically managed to incorporate sector-specific features in regard to the effects of work intensification (see Appelbaum *et al.*, 2000; Voss *et al.*, 2005; Combs *et al.*, 2006). For instance, Arthur (1994) identified the importance of work intensification in the manufacturing sectors through investigating the impacts of two HRM practices on productivity and staff turnover rates in a steel company in the US. Also, Ordiz and Fernandez (2005), in a study conducted in Spanish firms, found the benefits derived from HRM practices were higher in service organizations than in manufacturing firms. The similarity between these two studies and other studies (such as Schulte *et al.*, 2006; Combs *et al.*, 2006; Newman *et al.*, 2011) lies in their substantial focus on service sector organizations such as in retail and banking, as well as the manufacturing companies which are necessarily under the umbrella of the private sector. Little attention has been given to understanding the effects of work intensification on the manufacturing sectors. To complement the existing research, this thesis seeks to further understand the effects of work intensification on manufacturing companies in China, and from the perspectives of employees themselves rather than at boardroom level.

### ***2.2.6 The Intensified Work in China***

Changes in the Chinese economy have led to a marked improvement in its people's living standards and levels of private consumption. As a result, improvements in the areas of health, education, and employment for the Chinese population have been noted. Nevertheless, the transition has to some extent not come without other effects such as downsizing of companies, privatization, merging and restructuring – each phenomenon constituting change, and known as such to affect employees' wellbeing and health (Wong, 2006; Hu and Schaufeli, 2011a). Organizations have undergone changes in the way they recruit employees, the technology used, and changes in life due to work have put employees under increased pressure. All these modifications have been effected under the banner of 'remaining competitive'. Thus, the transition has impacted on both the organizations and their employees in general. In the light of this articulation has been the need to deal with irregular and long working hours (work intensification), flexible contracts, increased working pace, and even job stress. Work-related stress arising from work intensification is gradually becoming a growing concern in the economy of China. Recent reports have indicated employees in Chinese manufacturing industries in China experiencing intensified work and greater managerial control (Zhang, 2015). Moreover, the 'multiplication of labour' is also gaining popularity and captures the intensification of work, which 'is shown not only through the prolonged working hours, but also how work intrudes into the most intimate areas of performers' personal lives' (Mao, 2021, p.9).

Job stress arising from intensive working is a concept first recognized in China in the late 1980s. A study review conducted by Shu, Sun, and Shi (2009) identified a distinction in the two stages of job stress development in China. In the first stage, between 1988 and 2000, the annual

average number of papers published regarding job stress never exceeded 4, and most of those focused on the western studies to evaluate the job stress concept: for instance, among the earliest empirical studies was that of Wang and Wang (1993), studying the measures of job stress in the West using the occupational stress indicator (Cooper, Sloan and Williams, 1988). In the second stage conducted since 2000, reports on job stress have increased exponentially to more than 30 on annual average: *i.e.* somewhat over one per fortnight rather than one per quarter as formerly, and surely an indicative up-tick in its own right as to a sea-change in workplace dynamics. Such studies have focused on the job outcomes and the antecedents of job stress in several occupations, but still using Western measures such as MWSQ (McLellan's Work Stress Questionnaire) among others. Also, most of the studies are still descriptive and conform to these scales based on the theoretical models of job stress. So far, Chinese studies into job stress have firstly not covered the full gamut of work intensification; and they do not link well with employee engagement and employee outcomes, thereby implying a dearth of knowledge as to how work intensification contributes to employee engagement and employee outcomes (Tian and Zhang, 2020; Sun and Li, 2021). Available studies based only on western cases in principle and practice, take no account of the Chinese context and can hence offer only limited perception or insight that could gainfully be transferred or applied to organizational life in the PRC. To understand the concept of employee engagement in Chinese manufacturing companies, and within the broader notion of work intensification, it is important to begin by understanding the concept of HRM in the Chinese context (Mao, 2021; Zhang, 2015).

### ***2.2.7 The Employee Engagement Conceptual Definition***

Employee engagement is a new concept in academic research, although most consultant companies have begun promoting it (Wefald and Downey 2009b). Practitioners and researchers

in the HRM area tend to concur as to the fundamental concepts making up employee engagement, and agree that such concepts can shed light on the behavior of employees at work. Nevertheless, they present a range of varying definitions regarding employee engagement. Thus, while employee engagement as a concept seems from outward appearance to be broadly clear and compelling enough, it suffers from a deficit of clarity in its definition. This section discusses the disparities in concepts among the various schools of thought as to the definition of the employee engagement, in order to establish a common and workable conceptual foundation for the current study. The seminal work of Kahn (1990) will be taken as the point of reference: he having been the first to introduce the concept of engagement, as he explained the various ways through which people are engaged or disengaged in a working environment. According to Kahn, 'job engagement' denotes the process of harnessing the members of the organization to their work roles where they can express themselves physically, emotionally, and cognitively as they discharge their duties (p.694). This definition clarified the concept of engagement where it was manifested as a way of being available at work. Availability at work is a major component factor in the mental state and perceived self-worth of an individual. To be engaged, it is important for an individual to think, pursue actions, and develop feelings towards the job: this requires a driving force which can come from resources such as the physical, emotional and cognitive. Such resources can be improved in certain psychological circumstances, such as meaningfulness, whereby an individual feels the return on investment of their employee outcomes; safety, which involves the ability to employ oneself without fear of any consequences to one's work status or image; and availability, a sense of possessing the emotional, physical and psychological resources needed to execute the job roles with concentration and resilience. The psychological features that an individual possesses function as the mechanism through which that individual



connects to the performance of the role bestowed upon him/her. A corollary concept of disengagement refers to withdrawal from work roles. Kahn effectively pioneered the identification of the circumstances in which there could be existence of engagement.

Nevertheless, there is a weakness in Kahn's conceptualization. Nowhere during his exploration into the psychological conditions did he consider a theoretical conceptualization of engagement. This lacuna largely accounts for the dearth of literature regarding employee engagement in the 1990s, leading toward increased dependency on other such psychological constructs as job involvement and work commitment. Issues surrounding commitment at work and job engagement have been identified by Kahn in a way that has led to elucidation of employee engagement and disengagement at work; however, employee engagement as considered from this perception centres on the personal roles in a work environment. Kahn explained and viewed engagement as the role of people at work as well as the behavior they exhibit which is attributable to circumstances. In this school of thought there is insufficient clarity in addressing what employee engagement fundamentally is. Despite the work of Kahn, researchers never pursued such constructs until other research, into burnout, led to the reintroduction of this idea.

The concept of engagement was introduced by Maslach and Leiter (1997) where it was considered as an energetic state of involvement that is different from burnout. Engaged employees who tackle their work with serious consideration seem positively energetic, as compared to employees under burnout, who appear to be stressed and see their work as demanding more than they feel prepared to give (Bakker, Schaufeli, Leiter and Taris, 2008). Maslach and Leiter compounded their articulations by asserting that if an employee is never engaged, then there is a likelihood that he or she will shift to the other end of the continuum

where there is burnout. A successful engagement is a factor of high energy contrary to exhaustion; high involvement and not cynicism; and efficiency clearly different from lack of efficacy. This view was later supported by Gonzalez-Roma, Schaufeli, Bakker and Lloret (2006) in further research that characterized employee engagement with activation, absorption and identification. Activation is the sense of energy that drives an employee, identification shows a positive relationship towards work, and absorption implies to being completely immersed in a person's job. Kahn's (1990) definition of engagement was improved upon by a later school of thought where it was viewed as being available for work, while adding the three dimensions.

However, this school of thought continued to supported the argument that if an employee is not engaged, there is a likelihood that he/she will shift to another continuum and experience burnout. There is a major inherent flaw in arguing that engagement is the straightforward antithesis of burnout. As a matter of fact, the antithesis of burnout is not engagement: where the employee is not engaged, it does not inevitably follow that there will be an instance of burnout. For instance, an employee lacking a good outfit for his/her job may end up lacking interest for the job and just execute their roles for the sake of working routinely, undemandingly and bringing home a wage. This hardly equates to that employee experiencing full-on burnout or even exhaustion. The issue of whether engagement and burnout lie at the extreme ends of a continuum from the perception of work intensification forms part of the theoretical foundation making up this study. Although the research of Gonzalez-Roma and colleagues (2006) provided empirical evidence supporting the conceptualization of engagement and core burnout as fully opposite dimensions, the theory only supported two dimensions, *i.e.* that vigour and dedication are, respectively, the conceptual opposites of emotional exhaustion and cynicism. Firstly, there is need to emphasize that although there exists a difference in the concepts of engagement and

burnout that do not exist in the same continuum, it is still crucial to have distinctive measures to evaluate the construct. Secondly, the exclusion of absorption can never provide a comprehensive, rounded understanding of job engagement. Therefore, the approach presented herein is not perfectly suited to explain the concept of employee engagement.

Other scholars, for instance, Britt (1999) came up with the concept of self-engagement, which involves feeling the sense of responsibility for, and commitment to, the performance domain to the extent that performance seems crucial to the individual. Britt's approach exercises a degree of practicality in assessing the degree of engagement at work using the Triangle Model of Responsibility (that is, responsibility at work is a factor of being engaged), although the definition is not actually sufficient to address the issue of overlapping with the construct of commitment. Britt, Castro, and Adler (2005) later articulated that self-engagement comprises a psychological condition where the individual shows commitment in performance and puts more effort into work activities. This school of thought laid emphasis on the Triangle Model of Responsibility created by Schelenker, Britt, Pennington, Murphy and Doherty (1994). According to them therefore, it can be inferred that an employee shows engagement based on the feeling of responsibility he/she has for their work, and which relies on the three elements of identity images, even, and prescriptions.

Showing similarity with Kahn's view, this school of thought stressed the elements which comprise engagement, while providing little theoretical foundation regarding it. The study argued that performance due to commitment should not equitably be mistaken with engagement, as the two are different constructs. Thus, the Britt's notion of self-engagement for defining engagement and commitment shows an overlapping character: commitment centres on the long-term influence of behavior displayed at work, while engagement centres on the short-term

influences, that is, the daily behavior exhibited at work. Another weakness displayed is that solely referring to engagement as the feeling of being responsible at work, does not elucidate the entire perception of work engagement. An individual could be generally responsible at work but fail to show enthusiasm, thereby failing in terms of task-level engagement. Based on these articulations, the definition that this school of thought provided never encapsulated the concept of engagement with sufficient clarity and unambiguity, and was therefore not appropriate to be used in the current study.

Engagement has also been defined from the perception of involvement among individuals, the level of enthusiasm at work and satisfaction (Harter *et al.*, 2002). This definition was extracted from the components of Gallup Workplace Audit (GWA, 1999), created by Gallop organization based on employees' perceptions of features of or at their work. The perceptions of work-related features led to a definition with a conceptual overlap between job satisfaction and involvement. To begin with, job involvement is a concept focused on how the identity of a person is defined through their job (Lawler and Hall, 1970). A person who shows involvement in their job displays three factors: namely, motivation, commitment, and professional engagement with their co-workers (Brown, 1996). Hence, Hallberg and Schaufeli (2006) contemplated that job involvement pursues individual function and should be viewed as a dependent variable in a research model. Moreover, there is an overlapping of definition surrounding this term with 'job satisfaction', which is meant to explain the level of contentment that an individual experiences with respect to his or her job; it is an emotional state of pleasure that results from the appraisal of an individual's job (Locke, 1976). Out of the thirteen items used by the GWA, twelve managed to explain the variance in regard to job satisfaction. The concepts obtained from the literature about satisfaction were utilized in the explanation of engagement. Clearly, there are regions of

potential conceptual overlap surrounding each construct in relation to the description of engagement.

Only one single domain is captured in this school of thought: showing enthusiasm at and for work. Exhibiting strong engagement in an individual's work requires a person to considerably embrace a sense of significance and enthusiasm in the work. Nevertheless, due to the notion that the definition of engagement was never developed theoretically and depended so much on the features intrinsic to an individual's job and workplace, the definition derived by this school of thought does not suffice for the explanation of work engagement. The viewing of job characteristics, satisfaction and involvement could be some of the factors that influence the engagement of employees, rather than the concept itself. To a clear point, there is an overlapping of the concepts surrounding the constructs used in the description of engagement by Harter *et al.* (2002).

In the recent past, employee engagement has been categorized as vigour (Wefald and Downey, 2009a). In the perception of this school of thought, in order to realize that there is a difference in the constructs making up employee engagement, it is crucial to measure vigour as a non-confounding construct of employee engagement. Shirom (2003) defined vigour as the feeling an individual has when in possession of physical strength, cognitive liveliness, and emotional energy. This definition relates to a condition of efficacy which individuals apply to their work and environment. It never refers to the behavioral responses to events at work, such as dedication, which is a significant characteristic of engaged employees. Adopting the concept of vigour, that is, energy fails to characterize engagement as a holistic concept. This school of thought only provides coverage of one facet of engagement, which cannot be used to elicit more richly dimensional conceptions for employee engagement into a definition suitable for this study.

With the presentation of all the articulations, this research contends that engagement never lies along one same continuum as a diametrical opposite to burnout, but it is an independent concept. If at one end of the continuum an individual never experiences burnout, then it does not imply that one aspect or more of engagement is applicable. Employee engagement is a condition of the mind which pervasively influences the cognitive state, thereby requiring the person to be attentive and be immersed completely into their job. To be attentive and achieve complete immersion into the job, an individual needs to be enthusiastic and positive about it. As a concept that is independent, employee engagement can be well defined as the fulfilling, positive, and work-related state of mind that is constituent of various characteristics such as dedication, absorption, and vigour (Schaufeli *et al.*, 2002b). With the three dimensions onboard, this definition seems to be precise, comprehensive and of valid conceptualization (Schaufeli and Bakker 2004; Kim *et al.* 2009; Shimazu and Schaufeli 2009). From the perceptions of psychology, engagement is a condition-like phenomenon which is exhibited as an affective-cognitive state. It cannot be categorized as a temporary condition such as mood, or relatively non-malleable fixed characteristics such as traits of personality, but seen as quite stable (Sweetman and Luthans, 2010).

Considering vigour as the first element of employee engagement, it denotes a positive response in the interactions of employees with the job's elements and the environment. The concept of vigour comes from the notion that employees share a basic motivation to retain, achieve and guard those things which are valuable to them, such as resources, principal among which in this regard is energy (Hobfoll, 1989). The resources of energy refer to the strengths of emotion and physical strength as well as cognitive liveliness, alertness and resilience. From the perception of Schaufeli *et al.* (2002), vigour is characterized by high energy levels and resilience

in the mind while at work, willingness to channel all the efforts to the work and demonstrate persistence despite challenges. Vigour has a relationship with the psychological capacities required to exercise the power of will and create alternative paths to achievement; optimism in the anticipation of future success, and building resilience to remain persistent in the pursuit of goals. A person who displays vigour at work in a distinctive way represents an engaged employee.

Dedication forms the second element of employee engagement. Dedication shows the ability of an employee to be firmly involved in the work while experiencing a sense of significance, pride, enthusiasm, challenge and inspiration (Schaufeli *et al.*, 2002). Achieving dedication at work requires pursuing the acts of motivation such as working industriously and providing the best while at work. For such an employee, work does not seem only to be crucial but also requires the encompassment of behaviors that show self-discipline as demonstrated by the rules. Such a person should take steps of initiative to solve a problem while at work, and surpass the requirements of their superiors there (Van Scotter and Motowidlo, 1996). A dedicated person is veritably engaged to his/her job.

Absorption stands as the third element of employee engagement. Absorption refers to the feeling of being in harmony, and satisfied, with employee outcomes. With absorption, the employee shows a state of full concentration on the work, a state where time elapses swiftly, while experiencing some level of difficulty in detaching themselves from the work at hand. The form of employee engagement under this domain concerns the hedonic aspects of work. In order for a person to be engaged he/she should enjoy the process of working, and find pleasure in executing their roles. Thus, an ecstatic employee and a focused one represent an embodiment of an engaged employee. A study conducted using 30 in-depth interviews affirmed that absorption

is highly correlated with the engagement aspects (Schaufeli and Bakker, 2001). The study articulated that the engagement facet has relations with the efficacy of an individual through inculcating the confidence to be absorbed, and the resilience to show persistence in the task absorption.

To sum up, various schools of thought have drawn up their conception of employee engagement using different rationales. However, a lack of agreement among the scholars in developing a solid foundation with regard to the employee engagement definition has led to increased research gaps in this area. Some scholars have defined employee engagement using the notion of being available for work, some have defined it from the perception of being opposite to burnout on a continuum, and some have overlapped it with other constructs of jobs such as involvement and satisfaction. The articulations presented herein justify why the definition of employee engagement provided by Schaufeli *et al.* (2002) is the most precise and thorough. Employee engagement centres on the positive and the fulfilment of the aspects of work actions. For an individual to be engaged he/she must pursue vigour, dedication and absorption while on the job. The positive reflection an employee displays is normally in line with the positive organization behavior in the event of seeking to become acquainted with how individuals excel at work. It is for this reason that the view of Schaufeli *et al.* (2002) is deemed to be more comprehensive than any other definition and hence paramount. With these fundamental attributes and pursuing the conceptualization of Schaufeli *et al.* (2002), this study refers to employee engagement as being comprised of positive fulfilment and a workplace outlook that is affiliated with being vigorous, dedicated, and absorbed. This definition creates a distinction from other measures established from states of positive employment such as job involvement and satisfaction.



### ***2.2.8 Employee Engagement in China***

The economy of China has been evolving steadily in the past two decades towards the achievement of a state-engineered market economy with Chinese features (Warner, 1993). Productivity arising from labour has been recognized as a critical resource by the top central government all the way down to the organizations at grassroots level. Nevertheless, the approach used to attract, engage and retain employees is quite different, indeed unique as compared to those in the West. Warner (1993) referred to this system as ‘HRM with Chinese features’. The management of labour in China has evolved in the past 20 years to embrace a market-driven approach different from the previous socialist model. The ‘iron rice bowl’ to imply to guaranteed lifetime security at the job has gradually undergone a replacement with more flexible contracts of labor. Also, the social system known as cradle-to-grave has also been substituted with a reward system that solely relies on performance (Warner, 1996). These changes are because of the economic reforms and the need to remain competitive both regionally and globally. As already mentioned in the HPWS section above, HR policies and practices in China have encapsulated some aspects of HRM used in the West, although some aspects reflecting the socialist ideology of the Chinese have been retained (Ding *et al.*, 1997).

Professionals across the various managerial fields have continued to recognize the crucial contributions arising that accrue through employee engagement to the organization such as profits, organizational growth, and increased productivity (Harter *et al.*, 2002), organizational citizenship behavior, client satisfaction (Saks, 2006), and retention of employees (Berger, 2011). Employees who show engagement also show attentiveness, dedication, and high levels of absorption in their work duties. Such employees feel deeply connected to the organization and

mostly feel at will to work for extra time in order to contribute the efficacy they have towards achieving the goals of the organization (Saks, 2006). In view of this the crucial positive difference that accompanies employee engagement towards the achievement of organizational success, various research has been conducted to explore the sundry factors that drive employee engagement such as organizational leadership in the form of organizational support, job resources, work environment, and supervisor relationships (Saks, 2006; Parsley, 2006; Men, 2012). Notably enough there is a missing factor of employee engagement in the perception of work intensification and how it influences engagement and performance among employees. The light of this research is under the broad notion of the linkage between work intensification, employee engagement and employee outcomes in the perception of the positivity or negativity that arises from work intensification from a JD-R perspective.

Engaged employees show industriousness in their workplace. However, it should be noted that not all employees who are industrious are engaged. There is a negative type of working hard that is referred to as workaholism (Schaufeli, Taris and Bakker, 2008a). Workaholic employees spend more time working intensively when given the discretion to do so: in other words, they are addicted to work. They feel reluctant to disengage from work, and think persistently about it even when they are not physically present at their workplace. From a critical point of perception, it can be suggested that these people are obsessed with work and that they are compulsive workers (Scott, Moore, and Miceli, 1997; Schaufeli, Taris, and Bakker, 2006b). Engaged employees, on the other hand, show vigour, dedication and feel happy that they are absorbed in work. While their productivity may be comparable to that of workaholics, this achievement is not driven solely by their own potentially pathological inner compulsion. Engaged employees regard work as a positive, enjoyable and even fun activity but are not addicted to it (Schaufeli *et al.*, 2006b);

they can disengage any time under unfavourable conditions, although external work pressure may make them look as if they are becoming workaholics, for instance work intensification. In this regard, it is worth concluding from a point of psychology that workaholism causes negative job outcomes such as distress and poor socializing abilities; while on the other hand, well-channelled work engagement is related to positive job outcomes in terms of health, social relations and performance (Schaufeli, Taris and Van Rhenen, 2008b; Kubota, Shimazu, Kawakami, *et al.*, 2012).

With the large Chinese population, the provision of job welfare is quite low compared to other countries in the West as differences in income and the cost of living increase exponentially (Huang, 2008). Therefore, in order to be secure in terms of security and financially (Mao, 2015), there is need to put more effort into the work roles (Cook, Wang, and Bartram, 2019).

## **2.3 Work Intensification and Work Engagement: A Job Demands-Resource Model**

### ***2.3.1 Job Demands-Resource Model***

The area of scholarship affiliated with the concept of employee engagement has been dominated by the Job Demands Resource model (JD-R) which relies on the issues of measurement and the prediction of the three-dimensional framework that Bakker and Schaufeli (2004) proposed. By analysing the engagement of employees from the perception of work intensification, the conservation of the resource theory of JD-R model becomes a special case of the forward theory in the studies involving employee engagement and work intensification. The theory of conservation of resources was introduced by Hobfoll (1989) following an assumption that the various resources form the critical factors in gaining new resources that can enhance wellbeing. The theory claimed that resources form a central commodity that people struggle to

obtain, retain and protect. This theory pursues a gain spiral between job resources and engagement of employees, thereby implying that each component can reciprocally support the other. When employees are equipped with job resources, they become engaged over time, and engaged employees have a higher probability of becoming more inclined to their job through taking advantage of the existing job resources, and subsequently became more motivated to develop new resources. Such energy and attention, as inherent in engagement, permits employees to execute to their full potential in the job.

The theory of conservation of resources has been the foundation for the JD-R model (Figure 2.1) developed by Demerouti, Bakker, De Jonge, Janssen and Schaufeli (2001a) and emphasizes the notion of work engagement. In the model, two sets of work conditions are focused on, namely job demands and job resources. Job demands denote the features of a job that potentially cause strain: for instance, this study perceives work intensification as a job demand. The job demands can be physical, organizational aspects, or social factors that evoke strain either physically or psychologically. In a nutshell they can be emotional and cognitive. These demands concern the efforts of the employees, thereby being the reason why they are affiliated with both psychological and physiological cost (Bakker *et al.*, 2007). On the other hand, 'job resources' implies the working conditions within which resources are provided to the employees: specifically, the physical, social, psychological, and organizational factors (*Guanxi*, servant leadership, and job crafting) of the job, which can mitigate the job demands and the affiliated costs as far as achieving the goals of the organization are concerned (Demerouti *et al.*, 2001b).

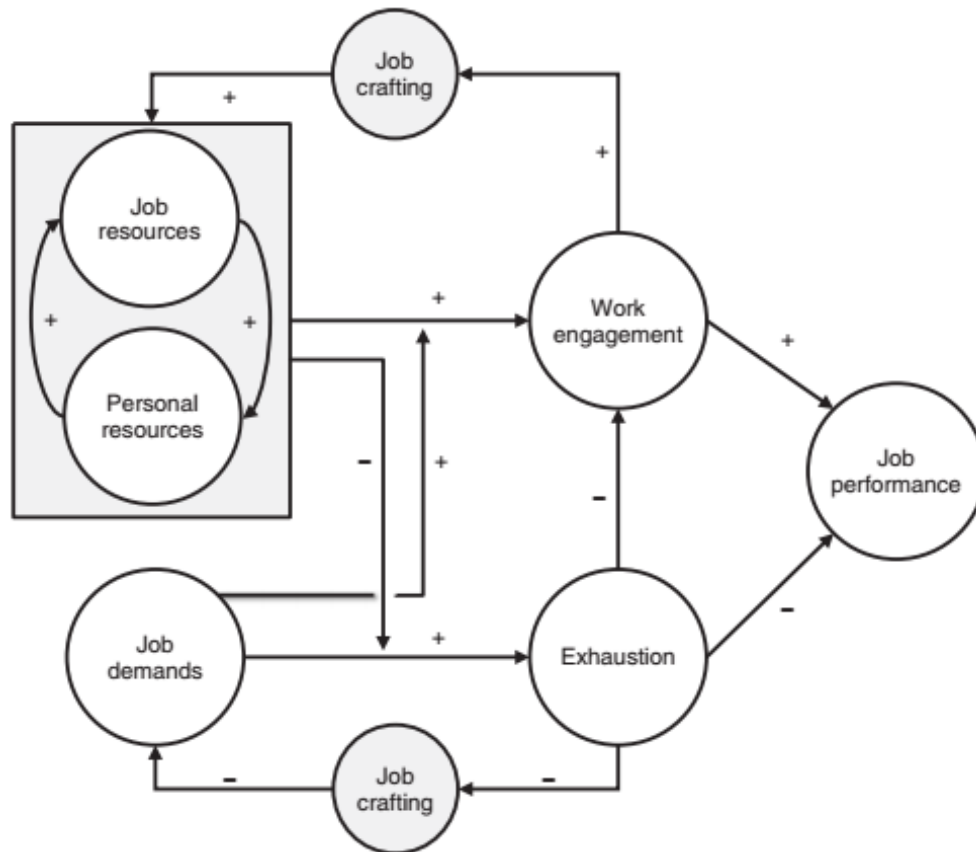


Figure 2.2: The Job Demands-Resource model (Bakker and Demerouti, 2007; Demerouti et al., 2001a)

The JD-R model has been used to predict various job factors such as work engagement (Bakker, Hakanen, Demerouti, and Xanthopoulou, 2007) and work enjoyment (Bakker, Van Veldhoven, and Xanthopoulou, 2010). The model has also been used to predict the consequences that arise from these factors such as employee outcomes (Bakker *et al.*, 2008). In fact, more studies have continued to adopt this model in the discussions involving organizational behavior (Crawford, LePine, and Rich, 2010; Nahrgang, Morgeson, and Hofmann, 2011). Using the model, makes it possible to understand, elucidate, and predict more about the wellbeing of the employee (engagement) and employee outcomes. The model is highly flexible as the working environments or the job features can be modelled using two distinctive categories: the job demands and the job resources. As a result, the theory is applicable to all working environments

and can be tailored towards an occupation under consideration, for instance, work intensification. Furthermore, the model is triggered by two independent processes, namely motivational and health impairment (see details in Figure 2.3).

The health impairment process involves the imposition or experience of strain, such as arising from the additional exertion that an employee needs to manage the negative job demands while maintaining employee outcomes. In regard to this study, there could be two perceptions of work intensification: either negative, or positive. The effects on employees in relation to engagement and employee outcomes are what determines whether it can be classified as negative or positive. Prolonged exposure to strain leads to impaired health and negative performance results, such as absenteeism from work and psychological burnout. On the other hand, there is the aspect of motivational process which is based on resource availability such as job crafting, servant leadership and many others related to this study. These resources directly enable an employee to achieve psychological engagement at work (Bakker and Demerouti, 2007). Proper following and usage of the job resources enables employees to achieve their work goals, mitigates job demands and the affiliated costs of psychological and physiological support or therapy, and promotes stimulation of personal growth and development. Other theoretical approaches have been used to explain how work environments meet psychological requirements of the employees, and how a positive outcome is achieved such as individual development, learning, performance, and satisfaction. Such theoretical approaches include job-demands control (Karasek, 1979) and job-demands control support (John and Hall, 1988).

The subsequent tests conducted in the JD-R model have showed positive outcomes. The tests on the direct impacts of job demands and resources have shown support for the two core processes of the JD-R model where job demands have been affiliated with health problems,

while job resources have been used to depict predictions revolving around job involvement and engagement. Bakker *et al.* (2003b) illustrated the primary effects of job demands and resources on the ability to predict psychological burnout; such that the job demands were correlated positively with exhaustion, while the job resources were correlated with reduced cynicism and increased efficacy professionally. Also, in a cross-sectional study that involved four samples from Dutch sources, Schaufeli and Bakker (2004) illustrated the important connections between job demands and psychological burnout, and between work engagement and job resources.

Within a longitudinal research design, there is a scarcity of tests affiliated with the JD-R model, although the available ones still try to support the theoretical tenets of the model. For instance, Boyd *et al.* (2011) illustrated that job resources, particularly fairness and workplace autonomy, can underpin predictions of psychological strain and a commitment of over three years' time lag; on the other hand, they reported that job demands could never predict directly the psychological strain during the shorter timeframe of their study itself. An another three-year study, by Hakanen *et al.* (2008a), reported cross-lagged attributions between work engagement and job resources, that were positive and reciprocal. This supported the motivational process associated with the JD-R model. A weakness on their research, however, was that it never tested the strain process of the model. Finally, in the research of Schaufeli *et al.* (2009) both the motivational and strain processes were reported after one year of conducting the study. Their research identified that an increase in job demand and a decrease in the job resources (with the inclusion of social support) over time predicted psychological burnout, and that job resources over time predicted work engagement. A weakness that was portrayed in the study was the small sample (N=201) that was used to study the Dutch managers.

Other forms of scarcity in the JD-R model have been noted in the independent tests in that they are still required for the validation of the theory. Apparently, for instance, the interactive relationship of job demands and resources are deemed to generate a great proportion of the crucial interactions in comparison to the broadly-acknowledged, subtle yet crucial terms of interactions of either the job demands-control or the job demand control support model (Mansell and Brough, 2005; Häusser *et al.*, 2010). To add to the stability of the theory, there has been call for tests in non-western countries, particularly Asian countries, which would add globally meaningful results to the theoretical validation of the model.

By expounding on the model of Bakker and Demerouti (2007), the present study uses the JD-R to elaborate the linkages between work intensification and work engagement and performance. Employee engagement first is highly related to performance. In a meta-analysis correlational study by Crawford, Lepine, and Rich (2010), it was established that an employee has a correlational factor of approximately 0.35 with employee outcomes. This is a moderate correlation, but noticeably stronger than what is generally found in the relationship between employee outcomes and constructs such as commitment and satisfaction (Crawford *et al.*, 2010; Dalal *et al.*, 2012). Thus, the connection between engagement and performance makes an intuitive sense. As established earlier, employees who are absorbed, vigorous, and dedicated towards their work are likely to perform at much high levels. This should go hand in hand with employees who are physically, emotionally, and cognitively attached to their work (Crawford *et al.*, 2010).

As discussed earlier, a similar relationship could be seen between work intensification and engagement. Nevertheless, the nature of the relationship, whether positive or negative, is still worth researching. This is due to the notion that relationship between greater job demands and



employee outcomes can differ so greatly, it is reasonable to expect that the moderators and mediators of the relationship, and the JD-R (Schaufeli and Bakker, 2004) are useful for modelling this relationship. JD-R model is predicated on jobs consisting of resources that foster engagement and inhibit burnout; and demands, which inhibit engagement and foster burnout. However, research has found relationships that go beyond main effects. For instance, more resources moderate the impact of demand on employee engagement, so that when resources are high, the negative impact of demands will be attenuated (Schaufeli and Bakker, 2004). Also, demands have previously been separated into *challenge demands*, which are tasks that require a great deal of effort but are seen as potentially beneficial to an employee's career (e.g. those requiring a high degree of problem-solving), and *hindrance demands*, which are tasks that are both demanding and lack any potential benefit (e.g. graduate assistants having to enter a large amount of data into a spreadsheet; see Albrecht, 2015). It has been proposed that while hindrance demands positively predict burnout and negatively predict engagement, as was originally posited for demands, challenge demands might positively predict both engagement and burnout (Rich, Lepine, and Crawford, 2010).

In addition to the already discussed job resources, job crafting forms a critical component of the job resource model. When looking critically at the role that an individual employee plays across the scales of employee engagement and employee outcomes, it is quite beneficial to focus on the proactive behavior that contributes mutually to increased performance for both the organization and the employee. In the view of Demerouti (2014) Job crafting is associated with a form of proactive behavior that triggers employees to improve the conditions of work surrounding them: the employees become responsible for the changes in the JD-R levels, and the desired output then becomes meaningful with more engagement and job satisfaction. In a recent

meta-analysis study by Tims, Bakker, and Derks (2015) it was found that employees who craft their jobs heightened their work engagement and employee outcomes.

In line with the conceptualization of the JD-R Model, job crafting comprises the seeking of resources and challenges as well as adapting to behaviors that reduce demands (Petrou, Demerouti, Peeters, Schaufeli and Hetland, 2012). By looking at these concepts separately, it is worth noting that job resources form a way of coping with job demands that must be completed successfully in the pursuance of goal achievement. On the concept of challenges, Demerouti (2014) denotes that challenges are a way of seeking behavior that would lead to increased responsibilities as an individual seeks new tasks. The final concept of reducing behavioral demands, entails the need to minimize emotions, physical or mental factors of the job.

With regard to the proactive behavior arising from job crafting, it has been noted that it can contribute to employee outcomes and social integration. Management is crucial in influencing the engagement levels and performance. Nevertheless, in times of economic turbulence, there is scarcity of resources and managerial techniques, leading to the need for an individual to optimize the work environment through job crafting (Bakker, Tims and Derks, 2012). The study of Bakker *et al.* (2012) determined that employees who adopted the behaviors of job crafting showed more engagement, which in turn contributed to increased work performance. In other research by Tims, Bakker, Derks, and Van Rhenen (2013) the relationship between employee outcomes and job crafting was underlined. Employees with the capabilities of crafting their jobs optimize the demands and resources in their working environment which enables them to reach their work goals. Therefore, on comparing active job crafters to employees who make partial changes, high levels of confidence, engagement and performance are noted. From these studies it is quite

evident that there is a strong relationship between job crafting, employee engagement and performance under the broad umbrella of work intensification.

Employees who strive to optimize their work environment such that they can accumulate resources show more positivity than their counterparts who experience loss spirals. As workers engage in behaviors of job crafting in the pursuit of influencing the characteristics of their jobs, they tend to exhibit other behaviors that can vary with the level of exposure to job demands and resource (Wrzesniewski and Dutton, 2001). This causes an implication for managers or supervisors. For instance, HR officers need to particularly focus on employees who hold high demands or low job resources, or other employees who transfer to jobs of that kind. One example is that they could offer significant help to newcomers, to facilitate their faster learning of jobs and reduce the intensity or timescale of their job demands.

Employees need to constantly inculcate new skills into their knowledge realm. One of the worst things that can happen is when leaders leave employees to make decisions by themselves without any kind of support, and at last expect these employees to be engaged without proper encouragement. In the light of employee engagement, a factor that seems important to the employees is the level and ease with which they can rely on their leaders and the entire organization for support and guidance as they work. Previous studies by Hakanen, Bakker and Schaufeli (2006) have demonstrated that any form of guidance from the supervisors relates positively to employee engagement. Mentoring and coaching employees is essential in preparing them to become responsible and ultimately taking part in leadership responsibilities in an autonomous area of work. The coaching intensity of the managers, according to the study of Agarwal, Angst and Magni (2009), has positive influence on the employee performance. This

study posits that coaching through effective leadership is a way of increasing the engagement level of employees.

It can be recalled that employee engagement is mostly studied in the framework of JD-R model and, from a broad perception, that lack of resources contributes to employee disengagement (Demerouti *et al.*, 2001). In this perception, the job resources refer to the psychological, physical, and social aspects of work that assist the organization in pursuing its goals (Bakker and Demerouti, 2007). Based on this notion, the various forms of organizational justice such as distributive and interactional justice can be looked at using resources that could be instrumental in the improving of employee engagement due to their functional importance in goal pursuance.

Most scholars have considered fairness as a fundamental determinant of employees' efficacy and behavior. The aspects of justice and fairness are regarded as among the six work-life factors that contribute to work engagement as an outcome of work, in the literature surrounding burnout (Maslach *et al.*, 2001). Lack of fairness leads to burnout, while perceiving fairness with positivity can enhance employee engagement (Maslach *et al.*, 2001). Various early studies (such as Greenberg, 1990; Sheppard *et al.*, 1992; Folger, 1993) showed that when employees perceive the decisions and actions of the organization as unjust, they become vexed and suffer resentment. In severe cases they may indulge in retaliation. On the other hand, when employees perceive the actions of the organization as just, they also embrace fairness in their roles through giving themselves more, thereby increasing the levels of engagement (Saks, 2006), and reciprocate through exhibiting the behaviors of organizational citizenship. The past studies for instance Greenberg (1990) have also demonstrated how injustice can lead to employee disengagement.

On the other hand, other past studies have consistently depicted that job resources, for example social support from fellow employees and managers, varied skills, autonomy, feedback due to performance and opportunities of learning, have positive affiliations with the engagement of employees (Schaufeli *et al.* 2009; Xanthopoulou *et al.* 2009). Job resources have the potential to enable the achievement of goals, and play the roles of extrinsic and intrinsic in a person's motivation. From an intrinsic perspective, job resources foster the growth of employees, their learning and development, thereby fulfilling such basic needs as autonomy and the ability to compete (Van den Broeck *et al.*, 2008). On the other, extrinsic side, job resources influence the achievement of workplace goals: as a matter of fact, work environments that provide many resources can heighten the effort and dedication of their employees (Meijman, 1998). With such an environment in place, there is a likelihood that tasks will be completed proficiently. Job resources exist in different areas such as organizations, organization of work, social relations among others. These variables depict how employee engagement can be affected, yet fail to significantly show how specific engagement can be affected and the level of effects caused. For example, most studies involving engagement have identified that supervisory support affects the employee engagement, but the kind of support is not revealed. The current study differs from previous studies, as it bases its articulations of work intensification as a factor of HRM, and how it links with employee engagement, as well as employee outcomes.

Leaving aside the pioneering work of Kahn (1990), the nature of the psychological studies has been constructed with positivity as compared with the bulk of studies on employee engagement. This implies that the evaluation of employee engagement has been quantitative and predominantly cross-sectional in nature (Kim *et al.*, 2012). Table 2.2 provides a summary of the previous studies surrounding the topic of employee engagement. From the table, the factors

affecting the engagement of the employees were based on theory and presumptions, and then tested properly. The recent development in studies surrounding work organizations has heightened the need for more research in order to explore the physiological related studies (Biggerstaff, 2012). Rather than drawing generalizations from cross-sectional studies, the emphasis should be based on the experiences of humans and the social life through considering matters such as context, history, and language. As already mentioned, the intention of this thesis is not to look back down upon the role of psychological investigations on employee engagement, but rather to take an additional step in exploring the employee engagement using HRM practices and work intensification with incorporated job resources. So, the study not only assumes the role of job resources but also the role of motivational processes (job demands) that can be triggered by sensitivity to the context. It formally articulates the relationship between forces of institution (work intensification) and managerial choices that shape HR practices and policies.

*Table 2.3: Key studies in employee engagement (Author's Compilation)*

Year	Author/ Source	Context	Measure
1990	Kahn (Journal of Management)	This study illustrated the nature of personal engagement and disengagement as well as the three conditions of psychology (safety, availability, and meaningfulness) determined to affect those behaviors.	The methodology followed qualitative research on 2 participants: <ol style="list-style-type: none"> <li>1. Summer camp participant and observer where data was collected using interviews, document analysis, and observation. This data was for 16 counsellors.</li> <li>2. Architecture firm who was an outside researcher. Data for 16 employees was</li> </ol>

			collected using in depth interviews.
2001	Rothbard (Administrative Science Quarterly)	This study examined both the enriching and deleting process that integrate engagement in a particular role with engagement in another role.	A survey was sent to 1,310 employees in a large public university. 790 were returned (about 60% response rate).
2002	Schaufeli, Salanova, Gonzalez-Roma and Bakker (Journal of Happiness Studies)	This study was concerned with obtaining a measurement of the internal consistencies of 3 scales and the factorial validity using an analysis of confirmatory factor. The relationship between engagement and burnout were examined.	The methodology involved two samples: Sample 1 had 314 undergraduates from Spain. Sample 2 had 619 employees from the public and private companies (12 organizations).
2002	Harter, Schmidt and Hayes (Journal of Applied Psychology)	This was a meta-analysis study that aimed to examine the relationship at the business unit level between satisfaction-engagement and the outcomes of business-unit affiliated with customer satisfaction, profit, productivity, employee turnover and accidents.	In this study 7,939 business units were used in 36 companies.
2003	Sonnentag (Journal of Applied Psychology)	The study examined the work-affiliated outcomes of recovery during the leisure times; it assessed the influence of recovery periods on the consequent work engagement and the proactive behavior at work.	A survey was conducted using 425 questionnaires. Only 147 were returned (about 34.6% response rate). The study involved employees from 6 public organizations.
2004	May, Gilson, Harter (Journal of Occupational and Organizational Psychology)	This study examined the role of the 3 conditions of psychology (safety, meaningfulness, and availability) in the	The study comprised of employees and managers across the various departments in the administrative divisions in a USA insurance firm. 213

		employees' engagement.	out of 270 responses were recorded (79% response rate).
2007	Mauno, Kinnunen, Ruokolainen (Journal of Vocational behavior)	<p>The study focused on the perceptions of job demands and job resources.</p> <p>3 types of job demands were evaluated namely, demands of time while at work, conflicts of work-to-family, and insecurity at the job.</p> <p>3 forms of job resources that involved job control, organization-based self-esteem and the perceived quality of management.</p>	<p>Data was gathered in two years that is, 2003 and 2005 from a single health care organization which consisted of 7 hospitals located in Finland with professional employees. 1,600 questionnaires were sent for the 2003 study and 735 returned giving a response rate of 46%. In the second study, about 735 questionnaires were returned. For the participants who were still under employment only 409 of them managed to return the questionnaires out of the total that was used (n=623) giving a response rate of 65.7%.</p>
2008	Macey and Schneider (Industrial and Organizational Psychology).	<p>The study was a proposition on various aspect such as engagement as a psychological state (that is, involvement, commitment, mood, and attachment), performance construct (organizational citizenship characteristics), disposition (for instance, positive impact), or some any of the above factors combined.</p>	<p>The study never used any form of measurement like participants.</p>
2008	Maslach and Leiter (Journal of Applied psychology)	<p>The study was conducted to identify the early predictors of engagement and burnout.</p> <ol style="list-style-type: none"> <li>1. Burnout as a state of mental fatigue was viewed in 3 dimensions which</li> </ol>	<p>Employees in the business and administrative sectors in an American university were used as participants.</p> <ul style="list-style-type: none"> <li>- In the first time, about 992 out of 1140 responded.</li> </ul>



		<p>involved lack of professional efficiency, exhaustion, and cynicism.</p> <p>2. Engagement as the opposite of burnout was measured also in three dimensions in the perceptions of involvement, efficacy, and energy. All of these dimensions were viewed as the opposite of burnout.</p> <p>3. Risk factors of the organization in 6 domains of work life were measured. The 6 domains comprised; reward, community, control, workload, fairness, and values.</p>	<p>- In the second time 812 out of 1128 responded. Both the first and second time displayed a response rate of 87 and 72% respectively. Also, about 466 employees had data affiliated with both the first and second time.</p>
2008	Van den Broeck, Vansteenkiste, Witte, Lens (Journal of Occupational and Organizational Psychology)	This study examined whether satisfaction of the basic psychological needs served as a mediator in the JD-R model of relationship: that is, to determine whether the need satisfaction could expound on the relationship between the various features of job forms and the well-being of employees.	The study used 745 out of 1450 participant employees in a random 17 Dutch organizations. The response rate was 51%.
2008	Salanova and Schaufeli (International Journal of Human Resource Management)	The aim of this study was to illustrate that job resource that is, situational cues have an indirect influence proactivity through job engagement, which is regarded as an indicator of	The study had 2 samples; the Spanish ICT employees who showed 78% response (624 out of 800) and the Dutch managers of a telecom company who showed a response rate of 80% (338 out

		intrinsic motivation for work.	of 420).
2009	Xanthopoulou, Bakker, Demerouti, Schaufeli (Journal of Occupational and Organizational Psychology)	The study examined the daily functions in the job resources (team climate, coaching, and autonomy) and how they are related to the level of personal resources for the employees (that is self-esteem, optimism, and self-esteem), financial returns, and job engagement.	The study involved a fast-food company in Greece where a survey of 42 out of 45 employees was carried out (93% response rate).
2012	Chen and Kao (Journal of Air Transport Management)	The study investigated the effects of burnout and employee outcomes as a result of job engagement and job tenure. The study was conducted on flight attendants.	The study involved 305 usable flight attendants' responses from Taiwan. These responses were collected using a self-administered questionnaire.
2012	Cao, Xu, Liang and Chaudhry (Management of Information Technology)	This study investigated whether team tasking and work involvement improved the general efficacy in work through the transfer of tacit knowledge between the virtual teams and e-business.	The study comprised working professionals in China, all of whom were MBA students in particular universities. 260 questionnaires were dispersed and the 211 of them were accepted, thereby showing an 81.2% response rate.
2012	Li, Sanders and Frenkel (International Journal of Hospitality Management)	This research provided the insights into the linkage between Leader-Member exchange (LMX) and the employee outcomes of the employees. An integrative model that included job engagement and HRM consistency from the perceptions of the HR practices were viewed to be consistent with one another thereby explaining the relationship.	The study used 298 employees to obtain survey data along with 54 supervisors in a large hotel in China.

2013	Alfes, Shantz, Truss and Soane (International Journal of Human Resource Management)	Drawing illustrations from the social exchange theory the study posited that the impact of perceived HRM practices on both the variable of the outcome mediated by the employee engagement levels, while the linkage between both the outcome variables and the employee engagement were moderated through the perceived support of the organization and the LMX.	This study used 297 participants who were employees in a service sector organization in the UK. 328 out of 540 questionnaires were completed signifying 61% response rate.
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### 2.3.2 The JD-R Model in the Chinese Manufacturing Context

Regarding the current study, work intensification is classified as a job demand, but this implies that other costs may arise alongside it as a job demand such as distress or fatigue. High demands lead to health erosion among employees and, in a case where the employees fail to adequately recover from the demands, their resources of energy become depleted which in the long run leads to burnout (Hakanen *et al.*, 2006). On the other hand, the job resources in this model are viewed as the social, physical, or aspects of the organization that may work collaboratively towards the achievement of work goals, while reducing job demands and stimulating individual growth and development through motivation (Schaufeli and Taris, 2014).

In this thesis, the JD-R model forms the best choice for studying Chinese manufacturing context as it is relatively broad compared to the models of ERI and JD-C, due to its broad encapsulation of the positive and negative psychological processes in which engagement and burnout play a crucial role. This broader scope and heuristic make the JD-R the best-fitting model for the study of Chinese manufacturing companies (Schaufeli and Taris, 2014). For example, job

demands such as work intensification, and job resources such as *Guanxi*, are salient features typical of present-day China and have been included in the theoretical JD-R model for this study. Since historical times China has been associated with feudal social models and the value of survival has been emphasized by most individuals. Through history and as already mentioned, the Chinese have been laying emphasis on economic expansion and earning physical security, unlike Western cultures where the quality of life is prioritised above economy and physical security (Tan, 2009). Thus, the inclusion of work intensification and *Guanxi* in the JD-R model in the current thesis increases the relevance of the research in Chinese context.

Additionally, other practices in the JD-R model have proven to be successful in the Western world, such as organizational support and job autonomy in relation to employee engagement. However, there can be no assumption that the same practices will work well with the Chinese, since Chinese culture demonstrates conflicting effects on the success of employee engagement in the work environment. There four main dimensions of cultural differences according to Hofstede (1980). Of particularly close relevance to this research is the orientation of culture that arises from collectivism-individualism. China and Japan use a collectivist culture that emphasizes the biding of groups with mutual obligations of the members (Oyserman, Coon, and Kemmelmeier, 2002). Organizations under the collectivist culture tend to view themselves as a family and therefore such organizations anticipate that their employees will surpass the contract and go beyond the formal job descriptions (Ramamoorthy, Kulkarni, Gupta, and Flood, 2007). On the other hand, an individualistic culture such as the one embraced in the West lays stress on personal autonomy and individual identity as based in personal achievements. In this culture people seem much concerned with their unique features and a *quid pro quo* relationship exists between the members and the organization. The culture of collectivism in China promotes

certain aspects of work such as team working. Thus, a teamworking ethos would necessarily tend to suppress individual efforts for the good of the organization. In such a case, an employee can subordinate his/her goals and pursue the goals of the group to develop a strong social oriented achievement. Based on this notion, it can be assumed that working hard in China is driven by an extrinsic desire to achieve social approval: that is, to fulfil the organization's demand and the team's expectations (Lim and Lay, 2003).

Confucianism has been the major propellant of culture among the Chinese: for instance, the Confucian concepts of obedience, loyalty, and filial piety are viewed as forms of subordination, devotion and endurance (Tian 2004). Rather, devotion, hard work, and diligence form the core values of Confucianism with self-sacrifice in the interest of the group dominating most individuals (Tian, 2004). This is manifested in the very long hours of work, to a point of exhaustion, as illustrated in the notion of *Karoshi* or, basically, death due to overwork, that emerged as a social problem in Japan (Horne, 1998). Due to the rapid development in China - comparable in pace, though on a vaster scale, with that of Japan's economic growth in the decades after the Second World War - it can be inferred that the Confucian work values will drive the Chinese to work extra hard. Additionally, the competition on the labour market due to the exponential growth of the urban population, poor regulation of overtime work, economic hardships, weak trade unions, and insufficiency in social security and pension system all lead to excessive work behavior among the Chinese (Westwood and Lok, 2003). On the other hand, Chinese culture embraces a vertical relationship of hierarchy and paternalism with strong pressure for conformity, maintaining face, and control in social aspects (Redding, 1990). Such relationships characterise, and conform with, a top-down leadership model where the employees are told what to do. As a result, Chinese culture can maintain and perpetuate topdown control,

since this form of leadership enables group sustenance and general group conformity to organization's values. This eventually conflicts with the practice and principle of work engagement and performance in a working environment.

The JD-R model has been applied successfully in various countries such as Australia (Lewig and Dollard, 2003), Spain (Llorens, Bakker, Schaufeli, and Salanova, 2006), Italy (Balducci, Fraccaroli, and Schaufeli, 2011), the Netherlands (Bakker, Demerouti, Taris, Schaufeli, and Schreurs, 2003a) and Finland (Hakanen, Schaufeli, and Ahola, 2008), and in multiple occupational groups such as employees across various fields: teaching, insurance and many more (Bakker and Demerouti, 2007). An important aspect worth noting is that most studies using JD-R have been conducted cross-sectionally, with only a few exceptions where longitudinal analysis is used (Boyd *et al.*, 2011; Barbier, Dardenne, and Hansez, 2012). Hitherto, a longitudinal test still stands out in the JD-R model used in China in both its adapted form and originality.

Recently it has been suggested that JD-R model should be more closely contextualized to capture management practices in preciser detail. On the one hand, it is suggested that the JD-R model should be applied to context, such as organizational change (Guenzia and Nijssen, 2021), hospitals (Birtch, Chiang and Van Esch, 2016), and even the public sector (Potipiroon and Faerman, 2020); and/or specific groups of workers such as salespeople (Guenzia and Nijssen, 2021), service representatives (Hu *et al.*, 2018), and manufacturing and IT workers (Latika, 2018). On the other hand, it is also argued that the boundary conditions of the principles of the JD-R model should be tested by including specific key context variables, such as leadership (Teng, Zhang, and Lou, 2020), individual behavior and attitudes (Potipiroon and Fareman, 2020), and others that are considered relevant (Hu *et al.*, 2018). Therefore, this research examines the JD-R model in China's manufacturing firms which have already experienced the intensification

of work, yet gained little research attention thus far. It also examines the boundary conditions of the JD-R model principles by testing the moderating effects of servant leadership, job crafting and *Guanxi*.

### ***2.3.3 Hypothesis Development: Individual Work Intensification and Work Engagement***

The role played by the organization forms another major component of the institutional theory. This study examines an emerging concept in HR practice known as work intensification, its effect and relationship on work engagement and employee outcomes. There has been a shift in the last two decades in the understanding of HR practices. A new model for reforming organizations, taking account of the perception of high-performance work practices, has been popularized (Appelbaum and Batt, 1994). Work intensification is a constituent of high-performance work practices and it encompasses the practices of post-Taylorism which principally involves the encouraging of employees to become involved and more responsible in work. Earlier research into the effect of work intensification in relation to HPWP on the employees has identified a positive correlation on the prosperity of the organization but a negative effect on the employees' side, as they suffer stress resulting from their increased efforts to achieve this (Appelbaum, 2002). However, initiatives to clarify the effects of work intensification are still underway and there is still insufficient literature regarding this topic. From a general perception, the nature of work intensification is manifested in three forms, namely: 1) skills, 2) work organization, and 3) motivation.

Firstly, the systematic nature of work intensification has distinguished it from the previous approaches used for work organization, as it has increased emphasis on participative decision making (Harley, 2005). Ramsay *et al.* (2000) suggested common aspects of work intensification that involved sharing of information, managing the meetings of employees, surveying the

employees, and problem-solving teams. This new approach adopted by work organizations allows employees to have a voice in the decision-making process, which in turn makes them feel empowered. The findings of Konrad (2006) demonstrated that ability to participate effectively leads to increased engagement as it affects attitudes, behavior, and beliefs. Konrad further claimed that positive attitude is a factor of being highly involved in job. When people become part of a system by being allowed to participate, they invest their personality in the system and steer it progressively towards success. Additionally, work intensification can contribute to a behavior that distinguishes highly engaged or disengaged employees, depending on their attitude. With participation encouraged, there is a likelihood that it would lead to highly engaged employees who would willingly go beyond job requirements to contribute to the success of the organization. With time, the continuity in the employees putting in more efforts, skills and time would lead to a generation of a culture that is highly aligned with employee engagement (Konrad, 2006).

Secondly, there has been an increased emphasis on the need to enhance the skills of the employees based on the early study of Appelbaum (2002). In the work intensification scenario, workers are assumed to be highly skilled to facilitate participative work organization. Such skills can be achieved through training the employees comprehensively, introducing new and alternative programs, and intensive recruitment and proper selection of employees who are skilled. Employees become engaged at work depending on the level of skills they have in relation to a particular role. For example, comprehensive training equips employees with the skills required to execute their jobs with efficacy and hence become engaged.

Thirdly, incentives are given to induce motivation among employees for the successful enforcement of any HPWP. Differently from the previous reward system that HRs used, which

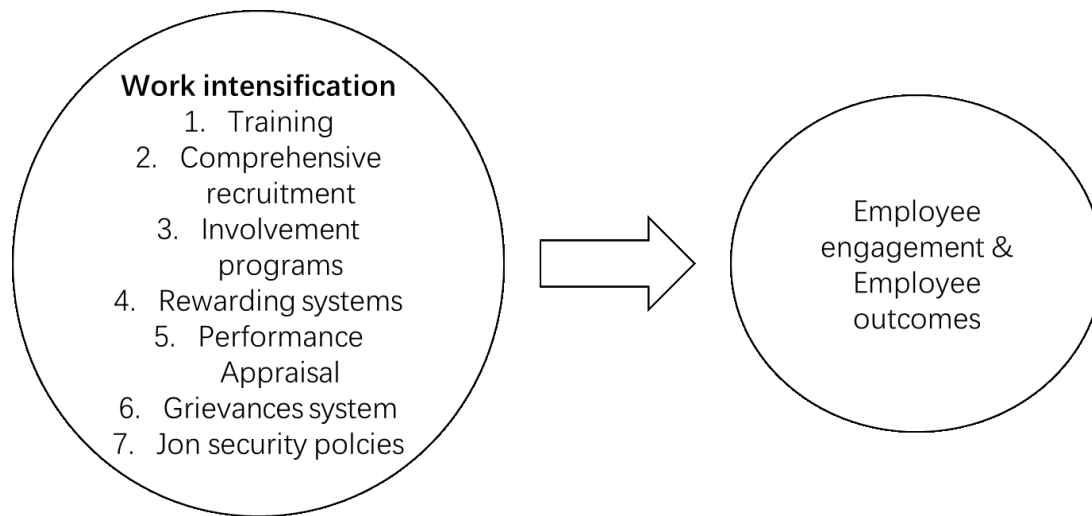


focused on job evaluation grading and the level of seniority, the current concept of rewarding centres on optimising the match between the rewards and the efforts put in by an individual, the skills and the general contribution. According to Appelbaum (2002), incentives given to employees in the form of rewards should include both intrinsic and extrinsic forms and provide a long-term stake to the organization. For instance, jobs classified as high-discretion provide a form of intrinsic reward, and any pay linked with quantifiable performance forms an extrinsic reward. In either way or both, these forms of reward are likely to induce motivation, leading to engagement as the employees recognise and accept the need to intensify their work output.

A combination of the three components, usually referred to as a bundle of HR practice, is crucial in creating work intensification in an organizational context. Abundant empirical evidence has shown a distinctive connection between work intensification and employee outcomes (Luther, 2000; Zang, 2008). However, the effects on the employees' outcomes, whether in a team setting or individually, have turned out to be mixed, with some researchers identifying a positive effect while others find adversity (Ramsay *et al.*, 2000; White *et al.*, 2003; Danford *et al.*, 2004; Kalmi and Kauhanen, 2008). The current study seeks to enhance the findings of these researchers by acknowledging the linkage between the bundle of work practices which, in this regard, contribute to work intensification and the effects observed on engagement and employee outcomes. The main assumption is that if work intensification is configured as required to align with the Chinese manufacturing concept, then it may lead to a significant engagement among the employees.

Hitherto, there has been a lack of any uniform perception regarding the composition of a set of practices to make up the bundle of work intensification. This study summarizes the existing or proposed bundles in relation to the reviews of prominent studies into high-performance and

engagement (Huselid and Becker, 1997; Becker and Huselid, 1998; Boxall and Macky, 2007) (See figure 2.4). As means of embracing work intensification, the following factors play a role: training; recruitment, in a comprehensive manner; involvement programs; systems of rewarding performance; developing performance appraisal; systems for dealing with grievances, and policies on job security.



*Figure2. 3 : Relationship between work intensification, employee engagement, and employee outcomes*

From the standpoint of social exchange, it can be inferred that employees will be motivated to indulge in engagement if their jobs are based on an equitable exchange system. Due to the need for work intensification, employees may find their needs are fulfilled by the opportunities and the sense of goodwill that come from work intensification. In return, employees who are satisfied feel more obliged to put in more effort at work and show more enthusiasm and loyalty to the organization (Takeuchi *et al.* 2009). Being enthusiastic and loyal shows a great level of engagement, as engagement requires employees to show dedication and enthusiasm about their work. Consequently, the dimensions of work intensification as a form of high-performance work

practice are anticipated to induce a great level of employee engagement since the HR practice bundle is regarded as fulfilling and rewarding.

Work intensification is one among several types of job demand, it requires employees to expend much effort to deal with more intensive work, for instance, completing more work in a shorter time. Moreover, work intensification is a long-lasting phenomenon that triggers the increasing of workload and other concomitant pressures in the workplace. Employees who work under such circumstances will feel exhaustion (Bakker and Demerouti, 2007). However, any engagement at working requires employees to keep energetic emotionally and physically. The tiredness resulting from the intensified work will thus increase employee exhaustion, which in turn hinders their onward engagement at work. Based on the discussions, I propose that:

***Hypothesis 1:*** Individual level work intensification will be negatively related to individual level work engagement.

## **2.4 Work Engagement and Performance: A Resource-Based View**

### ***2.4.1 The Resource-Based View Theory***

Irrespective of most studies centering around the discussions of what constitutes an organization, the issues concerning an organization's nature remain the critical focus of most debates in the field of economic studies and regarding HR practices in particular. Central to this in turn is the Resource Based View (RBV) theory which has been a focal discussion point in the studies around strategic management. The central proposition of this theory is that a firm seeking to achieve competitive advantage it must be able to acquire and control its resources as well as its capabilities (Barney, 2002). The assumption of the theory is that resources and traits within the firm are more critical in driving an organization towards achieving a competitive strategy

than the structural context of the industry and the actions of its competitors. This is the point where critics have criticized RBV, for its failure to take note of the external forces that influence the behavior of an organization. However, the theory embraces the notion of ‘best fit’ strategy which follows the ‘inside-out’ principle, focusing on factors that influence the internal decision of the organization such as the process of recruitment, plans for compensation, training, and so forth. These are significant in influencing employee behavior and performance and, most importantly, engagement (Boxall and Macky 2007; Alfes *et al.* 2013). Other factors pertinent to this study that will be looked at include the job demands intrinsic to work intensification, and the job resources which are also factors that can influence employee behavior and performance such as *Guanxi*, servant leadership, and job crafting.

‘Resources’, according to the definition of Barney (2001), refer to the assets of an organization, including both the tangible and intangible, as used by the organization to enforce its strategies. These resources comprise human, organizational resources, financial, and physical resources. The RBV theory denotes that resources in the category of technology, economics of scale and natural resources are increasingly becoming available and easy to emulate. On the other hand, human resources are considered rare and are becoming scarce and difficult to replace or emulate. In accordance with RBV, organizations achieve their competitive advantage from the human resources they use, for instance the employees or, in this case, work intensification. It is important to therefore note that the competitive advantage never comes from the policies and practices of HR *per se* but from the strategies of human resources that an organization employs and maintains, as discussed by Delery (1998). It is the effects of these resources that motivate most researchers to explore their linkage to employee engagement and employee outcomes.

Various measures of HR practices have been examined, together with how they relate to productivity. Huselid (1995) conducted a study of about 1000 firms in a bid to examine two measures of HR practice: the first measure was of the skills of the employees and the structure of the organization, while the second related to motivation of the employees. The results of the study revealed that when the two measures were regressed in relation to productivity, a significant output was detected. On the other hand, when the measures were entered simultaneously, it turned out that the motivation aspect showed a significant impact. These findings emphasized the importance of employee motivation in enhancing employee outcomes and output. In relation to the current study, the context of an organization's pay/rewards system can be considered as a form of motivation that may influence performance of a job. The findings of Huselid denote that for effective competition, organizations must not solely recruit the top talented individuals, but must try in many ways to inspire and engage the employees to exercise their full potential at work. Employee engagement becomes a critical component in driving the organization towards realizing its goals and vision. Subsequently, managerial behavior and responses create a difference too (Leiter *et al.* 2010). The responses of employees in regard to organizational practices, structure and policies influence their level of engagement experiences. However, the human resources are mostly underutilized, with employees in many ways performing below their potential due to the HR practices. As a matter of fact, HR practices can influence the skills and motivation of employees through the arrangements of the organization that equip the employees with appropriate capabilities to perform their roles.

There is need for employees to show continuity and fundamentality in a heterogenous way that adheres to their roles if they and their organization are to achieve a competitive advantage. For effective competition to occur, a firm must firstly scrutinize the strengths of its employees.

Secondly, according to Wernerfelt (1984) the firm's future strengths are dictated by the capabilities it presently embraces. A critical question worth asking is whether an organization has the right tools and capabilities to steer these strengths and the capabilities. Thus, one critical argument surrounding RBV is its validity in its operations. There has been silence regarding the maintenance of capabilities and resources in terms of their value, rareness, inimitability and non-substitutability. With such factors, it is important to use a proactive approach if the employee needs to remain unique. A proactive approach requires the employee to respond quickly to unique opportunities, as this can assist in developing a new knowledge that can make him/her go an extra mile. This implies that the actions that employees display at work determine the required level for their engagement. By exercising engagement, employees contribute extra time and/or effort, yet remain within the established parameters of the job requirements, in order to mould themselves into anything that can vigorously adapt to the working environment. The main principle to cling onto at this point is that every employee is assumed, and even expected, to be adaptable to an altered working environment with increased demands and fewer resources. According to Bakker and Schaufeli (2008) the accomplishment of engagement can be through various forms of the possessed capital by the organizations as well as the employees. One of these methods is through the organization's assets, that is, the experience, knowledge, and skills of the employees. Unfortunately, most work circumstances fail to sufficiently provide the resources, effective leadership or guidance that would steer the employees towards achieving their desires for work. Such gaps between potential and reality minimize the capacity of an organization to achieve its mission and vision, hence the employees become discouraged and lose dedication towards their roles (Leiter *et al.* 2010).

One of the problems facing researchers in relation to RBV is to address the issues arising from the generalization of ideas (Locket, O'Shea and Wright, 2008). RBV affords very little knowledge regarding resource utilization. This is attributed to by the notion that there is difficulty in conceptualizing and operationalizing the RBV. Locket *et al.* (2008) further argued that most resources are indirectly known: for example, group resources. In this respect it is worth asking that what exactly makes one group stand out by comparison with another in an else similar working context. This is one of the reasons for this study to delve further into the nature and practice of employee engagement, within the scope of work intensification, in an attempt to gain an understanding of the factors that can play a role in fostering resources.

Evidence from the debates has led to the reassessment of a firm's RBV (Marchington and Wilkinson 2005). The debates show a crucial limit in the RBV application. RBV is important in becoming acquainted with the existing differences between the various firms in a common industry, as it attempts to downplay the similarity forces between organizations found in the same industry. According to Barney (2002) this is only possible when the rules in the industry remain fixed. In a volatile environment where there is frequent emergence of technology and new markets, the value of resources continuously fluctuates, thereby creating a need to reach beyond RBV for any fully satisfactory explanation as to how HR practices may influence the performance of employees. There is a limitation regarding the application of the RBV as it centres on internal resources, with limited observation on the context of socialism and its implications for the selection of resources and decision making. Another shortcoming is that it fails to explain the process of selecting resources, that is, the process by which firms pursue rational resources to gain economic returns. If the attitude of an employee is crucial in

determining a firm's success, then it is perhaps crucial to take a critical look at the kind of resources that have impact on the behavior of employees.

Theoretically, the design and the implementation of HR practices require an organization to act in a way that can lead to positive results. A question worth asking, then, is whether such practices, generally or specifically, pursue the intended course. There is a need to uncover the constituent path that qualifies the variance in the success with which they do so. To sum up, this section provides an alternative base that can be used in the study of employee engagement, which is institutional theory, and highlights how the lens of this theory suggests a new model required to understand the dynamism between HR practices and employee engagement.

In the literature, most of the RBV-driven HRM research focuses on employees' KSA (knowledge, skills and abilities). It is often argued that employee's KSA with firm-specific characteristics is a core resource that can contribute to firm's sustainable competitive advantage (Chadwick and Flinchbaugh, 2021). However, employees with certain stable attitudes could also be core resources. For example, organizationally committed middle managers are rare, inimitable, and non-substitutable resources that can positively impact organizational performance (Gong *et al.*, 2012). Employee engagement, as an important work attitude, has been examined from different theoretical perspectives, such as social exchange theory, social identity theory and consistency theory (see Chandni and Rahman, 2020, for a review). However, the effects of this attitude on employee outcomes have never been tested under the RBV framework. Therefore, employees with key attitudes that can serve as core human resources need to be tested empirically.



#### ***2.4.2 Hypothesis Development: The Mediating Role of Employee Engagement***

Employee engagement will positively impact employees' task performance, job satisfaction, health and wellbeing. It is argued that employee engagement and organizational performance are positively related (Shuck and Wollard, 2010). The author of this thesis argues that the rationale for the positive relationship could be explained by RBV logic. First, engaged employees create values for their firm. Engaged employees focus their tasks, hence are likely to complete a task with better quality in comparison with less engaged employees. Second, engaged employees focus on and develop job-based knowledge and skills (Chughtai and Buckley, 2011). In this case, employee skill and abilities are firm-specific. Finally, the engagement of employees has in general been declining, resulting in engaged employees becoming increasingly rare.

Empirical research also supported this argument. A study conducted by Halbesleben and Wheeler (2008) on 587 employees in the US determined that there are significant semi-partial correlations between employee engagement and co-worker-rated performance. Performance was measured by using the in-role performance scale created by Williams and Anderson (1991). In other research reported in 2009 by Bakker and Demerouti, the relationship between men's engagement and employee outcomes was examined among 525 Dutch workers: all the participants (women, men and women partners) were 175 in each category. The results of the study showed that employee engagement in men, particularly in terms of dedication, correlated positively with their performance of both within and beyond their roles. Bakker and Bal (2010) reported that weekly work engagement was positively related to employee outcomes. In Netherlands, Gorgievski, Bakker, and Schaufeli (2010) studied a sample of both employees and self-employees in other organizations (1900 and 262 participants respectively): it was found that job engagement had positive correlation with task performance for both groups. In Italy and

Holland, using 668 Italians and 2213 Dutch, Balducci, Fraccaroli, and Schaufeli (2010) assessed the relationship between engagement and performance for white-collar employees in these two samples. It was found that work engagement had a positive relationship with performance when all the measures were self-reported. Similar findings were reported in other studies (Chughtai and Buckley, 2011; Kirk-Brown and Dijik, 2011; Bakker, Demerouti, and Brummelhuis, 2012).

Moreover, employee engagement was a factor of vigour, absorption, and dedication (Chughtai and Buckley, 2011; Halbesleben and Wheeler 2008). It is associated with employees' attitudes and wellbeing (Bakker and Demerouti, 2009; Kirk-Brown and Dijik, 2011). A high level of work engagement means an employee is more vigorous at and absorbed in his work. With improved performance, employees are likely to experience positive attitudes and wellbeing (Kirk-Brown and Dijik, 2011; Wankhade, *et al.* 2020). Based on the discussions above, I propose that:

***Hypothesis 2:*** Individual level work engagement will be positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being.

Hypothesis 1 proposes that individual work intensification is inversely related to individual work engagement. Hypothesis 2 proposes a positive relationship between individual work engagement and individual task performance, job satisfaction, and health and wellbeing. In combination, we propose the mediating effects of individual work engagement between individual work intensification and individual task performance, job satisfaction, and health and wellbeing.

***Hypothesis 3:*** Individual level work engagement will mediate the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being.

## 2.5 The Role of Context

### 2.5.1 JD-R Extension: An Interactive Perspective

In the JD-R model, the resources and demands have categorically been substantiated as different and independent entities that may interact or fail to interact successfully. Also, its joint contribution to wellness can be measured through relating the statistical interaction to the wellbeing of the employees. A common way of examining such interaction is through studying the effects of the joint moderation using the framework suggested by Baron and Kenny (1986) whereby the multiplication of the variables in a standard raw is used as another predictor of the study results altogether (Aiken and West, 1991). Nevertheless, using the multiplication method to predict the terms may not be the only way used to examine the joint impacts of job features. For instance, several approaches can be used as an alternative to differentiate the two sets of job characteristics, that is, the synergistic joint impact. For example, there is the quadrant approach whose focal point is establishing the difference between the groups of employees showing high levels of strain and the other group showing low levels, and their relation to the wellbeing of the employees as well as engagement (Karasek and Theorell, 1990). Another alternative involves use of the ratio approach proposed by Siegrist (1996) in the ERI model he developed. In this model, Siegrist examined the ratio of rewards and effort in connection with employees' wellbeing and engagement.

Researchers have attempted to investigate the joint contribution arising from job demands and resources in relation to employee wellbeing and engagement (Bakker *et al.*, 2003a; Hakanen *et al.*, 2005). Nevertheless, most studies used have failed to support the contention that there is a statistical interaction between job demands and job resources. Additionally, the few studies that have been reported have also failed to significantly portray the interaction impacts, as those

provided are weak and inconsistent with the evidence (Taris, 2006). On one side of the argument, it can be articulated that smaller joint effects are of little to no importance; while on the other side, the small joint effects can posit that the measurement and the conceptualization of the moderating effects of these combinations is to some extent suboptimal. Some scholars have argued that the JD-R model does not account for the distinction in the importance of the events with respect to the way employees try to appraise them (Cavanaugh, Boswell, Roehling, and Boudreau, 2000; Muja and Appelbaum, 2012). For instance, if a person has a belief that his/her resources are sufficient to meet the demands of a particular condition, then the condition becomes appraised as a challenge that may contribute to future gains in the form of learning and elevated self-esteem. Conversely, if the judgments rest on the perception that the resources are insufficient, then the situation is interpreted as a threat, as it may contribute to loss in the future in the form of strain and poor self-esteem. Following this articulation, the former premise will quite clearly lead to engagement, as employees with ample self-esteem feel not only capable, but obliged to execute their task roles with minimum supervision. The latter, contrary premise, however, will contribute to the negative effect which is employee disengagement. In such a latter case, and in relation to this study, it become clearly apparent that if work intensification is not pursued in the right manner, the employees will suffer strain, suffer low esteem and eventually disengage, leading to a nett loss of workforce resource within the organization. The JD-R model particularizes the form of job features that contribute to certain psychological states and work output. For instance, certain job demands such as work intensification, if not channelled and communicated appropriately, can be perceived as a challenge and a hindrance (Crawford, LePine, and Rich, 2010) and the effects of such job demands on with employee engagement and employee outcomes, as well as the wellness of the employee, can vary fundamentally.

Nevertheless, the JD-R model does account for the occurrence of this phenomenon. As a result, it can be inferred that the partial association between job features and the wellness of the employees can be affected by the cognitive appraisal of the investment from the workers due to the job outcomes they gain with time.

### ***2.5.2 Hypothesis Development: The Role of Guanxi, Job Crafting, and Servant Leaders at Individual Level***

The JD-R model incorporates a variety of job characteristics affiliated with the analysis of employees and organizations. Moreover, rather than focusing on negative aspects alone such as burnout and ill health, it also focuses on the positive indicators that portray the well-being of the employees, such as employee engagement. The JD-R model posits that the wellbeing of the employees is influenced by a wide array of job features that are broadly categorized as Job demands and resources (Demerouti *et al.*, 2001; Bakker and Demerouti, 2007; Schaufeli and Taris, 2014). The job demands form the negative category and could either be classified in terms of social, physical or organizational aspects of the job requirements that lead to more input of psychological or physical effort.

Drawing on the JD-R model, in the case of the current research, the job resources include: *Guanxi*, job crafting, and servant leadership. Job resources lead to positive development of employees and motivate them as well as making them achieve the employee engagement levels required to steer the organization towards success (Salanova, Schaufeli, Xanthopoulou, and Bakker, 2010). Besides such aspects as strain and the motivational process, the JD-R model also encompasses other moderating effects, namely: 1) job resources that buffer the negative impacts that job demands impose on the wellbeing and health of the employees (Bakker, Demerouti, and

Schaufeli, 2003; Bakker and Demerouti, 2007) and 2) intensive peaks of work demands that combine with high levels of job resources to increase work engagement and employee outcomes (Bakker and Demerouti, 2007). These two aspects concur with the logics of learning and strain hypothesis postulated by the JD-C model of Karasek and Theorell (1990). Researchers have identified instances of the former moderating impact of job demands and job resources on psychological strain, in studies that involved teachers in a higher education setting (Bakker, Demerouti, and Euwema, 2005), staffs in home care (De Jonge, Le Blanc, Peeters, and Noordam, 2008), and in other studies that used various occupational cohorts (Bakker, Demerouti, and Verbeke, 2004). Nevertheless, in most instances, any moderating impact has been noted as receiving partial support, with a weak interaction effect between the multiple job demands and resources (Bakker *et al.*, 2005).

In the Chinese workplace, the *Guanxi* aspect of relations between people is unique and crucial. The job culture and social variables such as perceptions, values, and attitude determine the level of stress that is likely to impact an employee. The Chinese are habituated to a Confucian culture which maintains social harmony through adhering to a hierarchy that is strong and orderly; the social system in China has been viewed as a family system according to King (1985), therefore trust is normally confined to between those regarded as family members (Kao, 1996). Within such close mutual relationships a series of repetitive transactions occurs between two actors over time, to develop attachment in the crucial roles being performed. Each actor can be assigned the responsibility of allocating social resources that can be used in the satisfaction of the other person. This process involves a form of reciprocity that is that acts as the social capital in both the western and Eastern countries, more so the case in China. According to Hwang (1987) China is always portrayed as a relational society as it embraces high levels of interpersonal

reciprocity. Various concepts have been demonstrated such as *Guanxi*, that is, morality in the principles of interactive behaviors for related parties (Chen and Chen, 2004), meaning that sound behavior is a factor of adhering to the social norms that are known as *Renqing* (Hwang, 1987). Creating benefits for an individual's *Guanxi* network at any given time leads to the development of a debt: in other words, an implicit obligation that needs returning of the *Renqing*, without which suspicions of untrustworthiness may arise. *Guanxi* also plays a role in the relationship exhibited between supervisor and subordinate in China, influencing the decisions of a leader regarding resource allocation as well as those of a subordinate in relation to any potential promotion (Law, Wong, Wang, and Wang, 2000). *Guanxi* levels that seem attractive act as a job resource in themselves, as this encourages the development of other more specific job resources. Leaders who have good *Guanxi* with their employees tend to give more resources to such employees and find it easy to promote them whenever need be (Law *et al.*, 2000). As far as this study is concerned, the inclusion of *Guanxi* in the JD-R model makes the study more applicable to the Chinese context.

Job crafting, defined as the physical and cognitive changes that employees initiate in the task or relationship boundaries of their work (Tims, Bakker, and Derks, 2012; Wrzesniewski and Dutton, 2001; Niessen, Weseler, and Kostova, 2016) to proactively redefine their jobs to foster a sense of meaningfulness and autonomy at work (Parker and Ohly, 2008; Niessen *et al.*, 2016). Hence, job crafting indicates proactively initiated employee actions aimed to (a) create a proper balance between job demands and resources (Tims and Bakker 2010) and to (b) alter the physical, cognitive and relational job boundaries (Wrzesniewski and Dutton 2001) that improve person–job fit and result in better engagement and superior work performance (Berg *et al.* 2008).

Tims *et al.* (2012) propose four dimensions of job crafting that help in balancing job demands and job resources. These are: increasing social job resources (*e.g.* seeking feedback from peers and subordinates), increasing structural job resources (*e.g.* greater job autonomy), increasing challenge job demands (*e.g.* seeking tasks that reduce monotony) and decreasing hindrance job demands (*e.g.* trying to reduce role conflict).

A study conducted by Mintzberg (1994) observed a great difference between the espoused strategy (what leaders refer to as strategy) and the realized strategy (the current actions of leaders). The literature of HRM recognizes that there is a system that is rarely used by those responsible for its execution, irrespective of the intended HR system designed by leaders. It is therefore crucial to review the literature that encapsulates the practical roles of leaders in the organization.

Of further focus to this study, and in relation to work intensification and employee engagement, is servant leadership, a concept coined in 1970 by Greenleaf (cited in Yukl, 2013) who referred to it as the desire of an individual to serve others. Servant leadership therefore refers to the way a servant leader persuades the subjects in a way that develops them, rather than just earning the glorification of a leader (Walumbwa, Hartnell and Oke, 2010). A servant leader understands and adopts behaviors that make him/her have the self-interest of the subjects at heart. Studies of servant leadership are still rare compared with other leadership philosophies, such as the charismatic, authentic, and transformational (Lichtenwalner, 2011).

One feature that makes servant leadership a crucial area of concern in the engagement of employees is its focus on the bottom-up leadership rather than the traditional, hierarchical top-down approach. In a world where companies are going bankrupt due to ethical shortcomings, while others suffer economic instability and environmental problems, people have ended up



looking for other potential sources of relative stability and purpose in their lives. Servant leadership concerns the hearts of the employees rather than their minds and hands. With the employees forming the greatest asset of the organization, inculcating loyalty among them and making them productive while balancing the profits of the organization presents most leaders with a challenge, further stressing the need for adopting a resilient form of leadership philosophy. Each of *Guanxi*, job crafting, and servant leadership creates work resources that offset the hindering job demands, and strengthen the challenging demands created by work intensification. Therefore, the discussions presented herein lead to the following hypotheses:

***Hypothesis 4:*** Individual level *Guanxi* will moderate the negative relationship between individual level work intensification and work engagement.

***Hypothesis 5:*** Individual level job crafting will moderate the relationship between individual level work intensification and work engagement.

***Hypothesis 6:*** Individual perceived servant leadership will moderate the relationship between individual level work intensification and work engagement.

### ***2.5.3 Organizational Level: Work Intensification***

The multi-level nature of HRM systems urges scholars to explore and investigate the cross-level relationship potentially governing how HRM systems at a collective level shape HRM systems at individual level. Intended HRM systems are the design of the HRM systems, while the implemented HRM systems are managers' application of the intended systems. As for HRM at individual level, it is the individual's perceptions or experiences of the implemented HRM systems. In the case of this research, at the manufacturing workplace, employees are usually organized as production teams. The growth of the workload manifests first at team level

and will increase the intensification of their work. Team members consequently must work together to complete the intensified collective work in a process where each properly engaged individual surely experiences work intensification. However, it is the increased intensification of the teamwork that gives rise to individual experiences. Therefore, the team-level work intensification will be positively related individual-level work intensification, which means that the increase of team-level work intensification will increase the individual-level work intensification. Moreover, according to hypothesis 1, individual work intensification will be negatively related to individual work engagement. Therefore, I propose a mediation relationship such that:

***Hypothesis 7:*** The effect of team-level work intensification on individual-level work engagement is mediated by individual level work intensification.

## **2.6 Summary**

The section has focused on the conceptual issues that link to employee engagement and performance. Particularly the chapter discussed about work intensification from various viewpoints of different authors and presented articulations from both the micro- and macro-level perceptions of an organization. Also, different theoretical perspectives have been discussed in relation to work intensification, for example, the use of JD-R model has been discussed at length, together with how it links up to the study topic of work intensification and its linkage to employee engagement and employee outcomes. The central and principal argument has been the discussion of the job resources of *Guanxi* and how these affect work engagement under the broad influence of work intensification. Having set a theoretical point for the study using the JD-R model, it becomes crucial to study work intensification and employee engagement in the Chinese manufacturing context.

This section also focused on the Chinese contextualization of work intensification, employee engagement, and employee outcomes. The section has looked at how HR practices lead to work intensification in China and, most importantly, the concept of team-level and individual-level working have been emphasized as the core driving forces of this research, which has been undertaken with the perceptions both of the West and Eastern countries in mind. The JD-R model, particularly the *Guanxi* aspect, has been discussed in the context of China. A major contribution in this section in general has been to show how work intensification is viewed in China, although the need remains to conduct more research to determine whether there is positivity or negativity in the effect. The next section will discuss the methodological approach that was applied to this research.

## **CHAPTER III: RESEARCH METHODOLOGY**

### **3.1 Introduction**

To fulfil the tasks raised by research questions, researchers require a valid design and reliable evidence. Only in this way can the theoretical contributions scholars attempt to make be valid. In relation to the purpose of the study and the research questions (see Chapter 1, section 1.2), this chapter intends to discuss the available methodological options and provide sufficient justification for all the decisions taken regarding the methodology. The methodological literature offers a broad range of research methodologies from which an individual researcher can choose and adopt the most appropriate approach for the study. Furthermore, a decision must be made on the research paradigms whenever a researcher is required to choose a methodological approach, since such choices reflect deeply the nature and the requirements of the work and also the researcher's perception regarding the contemporary context. Burrell and Morgan (1979) contemplated that fitting into a particular paradigm requires an individual to have a particular view of the world. To come up with the appropriate choice, a researcher must possess a broad understanding of the various paradigms and how they apply to research. Given that there is need to understand a paradigm before conducting any research, this chapter begins by discussing the research paradigms and providing a justification for the choice that the study adopted. The chapter will then discuss why a quantitative approach was adopted for the study; the next section will then discuss the data collection process, the techniques and process of sampling, followed by a pilot study discussion. The chapter concludes by highlighting the ethical considerations.

### 3.2 Research Questions and Objectives

Analysis of the literature identified numerous studies that seek to evaluate the antecedents and repercussions of work intensification and job resources on employee engagement and employee outcomes using various frameworks (Kahn, 1990; Harter *et al.*, 2002; Bakker and Demerouti, 2008). The majority of these studies have focused on specific occupational groups or private sectors (Kim *et al.*, 2013), mainly in Western business settings. It is worth noting that the benefit of these findings in both practice and academia, as well as empirical evidence regarding employee engagement in different perceptions of the JD-R other than the Western usage, remains unclear. It then follows that interested parties and individuals in the study of employee engagement have recommended the scope of further research to cover the Eastern parts of the world, particularly China, which would help reinforce the validity of the results, while also broadening their applicability, and in turn build a firm foundation for the proposed theories (Kim *et al.*, 2013). Additionally the multinational corporations, in the quest of understanding employee engagement across their operations, are faced with a major question of whether employee engagement is a concept known universally, or whether its meaning and antecedents differ between most parts of the world (Kelliher, Hailey, and Farndale, 2014). Therefore, there is need to examine the constructs of employee engagement in various nations apart from the West in order to provide an input on the current state of research regarding employee engagement.

Based on his professional experiences, the author of this thesis agrees with the suggestion that employee engagement, as a crucial concept at work, needs to be examined in a non-Western context such as today's China. Over the last decade or so, the exploration of digital technology-facilitated information has attracted people's attention. The enhanced diversity of products and services in consumer markets has changed people's way of exercising choice.

Generally, as people's attention spans are reduced by ever more information competing for their time, consumers are becoming less focused and persistent, or less engaged not only at work but also at home. However, it is the engaged employees who can contribute to the efficiency and effectiveness of team or organization. Thus, to make clear the definition and structure of work engagement it is necessary to understand the preferred status of employees in China. Given the increase of disengagement, it is of great importance to identify the antecedents of employee engagement, as well as the consequences, so that practitioners can understand how to intervene and appreciate what can be expected when managing today's workers.

The primary motivation for this research is to investigate further, and both broaden and deepen the understanding of, the factors that impact work intensification to predict work engagement and performance in Chinese manufacturing. Along with this primary aim, there are three important aspects, that is, a) the influence of social context on work intensification practices and employee outcomes, b) the adoption level of work intensification practices and impacts on employee engagement and job outcomes, and c) the possible implications of empowering leadership practices on work intensification and employees' outcomes. Based on this structure, the study addresses the following broad research questions:

**Research Question 1:** How does individual/team work intensification and employee outcome (e.g. task performance, job satisfaction, and health & wellbeing) relate to individual work engagement?

**Research Question 2:** How does the level of individual *Guanxi* affect the linkage between work intensification and individual work engagement?

**Research Question 3:** How does individual's job crafting affect the linkage between individual work intensification and work engagement?

**Research Question 4:** How does servant leadership influence the relationship between individual work intensification and work engagement?

**Research Question 5:** How does team work intensification relate to individual work intensification and work engagement?

### 3.3 Research Paradigm Consideration

Understanding the research philosophy makes the researcher aware of the available alternatives of philosophy that assist in adopting a stance that has an influence on the research decision, as well as informing and determining the decision that relates to research strategy and the methods to use. Guba and Lincoln (1998) referred to paradigm as the metaphysics that deal with initial principles. It presents a worldview that defines the nature of the world, the individual in it and the range of possible relationships that can be found in those parts of the world.

Paradigm can also refer to a general orientation about the world in terms of what views the researcher holds and the nature of research (Creswell, 2009). These definitions bring out the notion that paradigms are highly related to the researcher and the research, and they provide the outline definition of knowledge yet to be discovered, together with the beliefs that the researcher holds regarding the discovery of that knowledge. Sarantakos (2005) viewed the paradigms of research as ontological, methodological, and epistemological, to provide guidance to the process of research. According to Guba and Lincoln (1998), research paradigms deal with three fundamental questions of research:

- *Ontological question:* which asks, What is the nature of reality? Is there a reality in the world that is independent from our knowledge, upon which we can use to make

foundations? (Objectivity). Or is that world constructed on a social basis that relies on a particular culture and time? (Social construction).

- *Epistemological question*: the nature of the relationship between the researcher and what that researcher anticipates to know. It deals with the question: How do we know what we want to know?
- *Methodological question*: How do we become knowledgeable of the world? That is, how does the researcher locate knowledge? The methodological question answers the question about choice of research methods and instruments of data collection.

Therefore, it remains essential for a researcher to pinpoint the appropriate paradigm to embrace for a particular study in accordance with the argument of Guba and Lincoln (1998) that:

Issues concerning paradigm are crucial and it should be maintained that no inquirer should indulge in the inquiry business without clarity regarding what paradigm informs and guides his/her approach (p. 116).

Esterby-Smith, Thorpe, and Jackson (2012) stated three reasons why there is need to understand the research paradigm in respect to research methodology. First, it assists in the refining and the specifying of the research methods that can be used in the study. Secondly, a researcher becomes capable of evaluating the various methodologies and the methods, thereby avoiding inappropriateness in usage and unnecessary work, since they can identify the limitations of a particular methodology early enough to avoid wasted effort. Thirdly, research paradigms inculcate creativity and innovativeness in the researcher, as far as selection of methods outside his/her experience is concerned. According to Saunders, Lewis and Thornhill (2012), in the process of conducting research, each researcher necessarily begins by exercising critical perception as to how they view the world. These views, and the assumptions they make, end up affecting the research strategy and the methodology applied. The researcher's past



experiences and discipline play a crucial role in shaping these world views, and eventually lead to the researcher's selection of the method and approach used in the study.

As a result, Tashakkori and Teddlie (2009) coined the term 'paradigm' as a worldview that combines multiple philosophical assumptions allied with a point of view. In this case, the worldview refers to the perceptions of the world in terms of beliefs, aesthetics, morals, and values (Morgan, 2007). A worldview comprises various stances that have been identified as elements such as ontology, epistemology, and methodology (Guba and Lincoln, 2009). In fact, Guba and Lincoln presented four major paradigms used in studies: positivism, post-positivism, critical theory and constructivism. On the basis of these components, Creswell and PlanoClark (2011) also determined four world views, namely: post-positivism, constructivism, participatory and pragmatism. In the process of adopting a paradigm, a brief discussion of the frequently cited paradigms in managerial studies will be discussed and an explanation of the adopted paradigm will also be provided.

### **3.3.1 Positivism**

Positivism proposes the application of the methods of the natural sciences to study social reality. It has emanated from the view of empiricists regarding natural sciences and considers social sciences as capable of possessing the same, or substantially analogous, analytical possibilities as apply in the natural sciences (Remenyi, Williams, Money, and Swartz, 1998). This implies a possibility that reality can be observed without interference. Positivism suggests an objective view in relation to the independence of the researcher from the research objects, and that the research has to be carried out in the value of a freeway (Remenyi *et al.*, 1998). This component uses theoretical perceptions to generate hypotheses that can be subjected to testing with an aim of finding the general laws and statements of causality in regard to a social

phenomenon (Guba and Lincoln, 1998). As far as methodology is concerned, positivists use quantitative approaches in their research and the results they derive should be generalizable and replicable. Their main aim is to determine explanations for behavior rather than obtaining an in-depth meaning. The approach used emphasizes data collection from an empirical perspective with its cause and effect usually based and oriented on existing theories (Creswell, 2009). The strength of this approach is that the findings from the research can be replicated and generalized on various samples leading to the ability to make future predictions (Johnson and Onwuegbuzie, 2007). Due to its precision in methodology, it is possible to maintain reliability and validity. Also, the approach is useful in studying a large sample population, thereby leading to saving of time through economies of scale (Cohen, Manion and Morrison, 2007).

Although positivism has principles that seem advantageous to various researchers, its inherent shortcomings explain why it is not adopted for the current study, one such being its failure to create a distinction between the social and the natural world. Its premise that the concepts and methods of natural science can find application in the study of social phenomena, fails to take account of the crucial distinctions that occur between the social and natural sciences. For instance, organizations never exist in independence, nor should they without involving their employees' views in the decision-making process. This implies that employees are likely to mirror the organizations where they belong and can change their behaviors accordingly. Hughton (2011) argued that in the process of conducting research, objectivity should not be chosen for a social phenomenon that explains behavior. Secondly, in social sciences, it is quite difficult to establish or maintain complete detachment from the hypotheses, unlike in natural sciences (Cohen *et al.*, 2007). Finally, the actions of members of an organization shape the organization and are prone to change based on particular factors such as location and time. The current study

is conducted on social structures, and therefore the application of strict methods used in natural sciences lacks appropriateness in this context; hence in turn, positivism as a paradigm was never adopted for the study.

### **3.3.2 Post-Positivism**

In an attempt to solve the shortcomings of positivism, post-positivism was suggested. According to this paradigm, the goal of any research should be to obtain an equilibrium of agreement between objective reality and what the researcher perceives (Creswell, 2009). Although quite similar to positivism, this approach acknowledges that there cannot be certainty that the use of scientific methods will reveal the absolute truth to the researcher. The primary difference between positivism and post-positivism is that the former proposes that reality is found without interference from the researcher, as can be understood through the observations that the research makes and follows through general laws. On the other hand, the latter articulates that although there is empirical reality, the understanding we have for this reality is limited or clouded by complexity, including any prior bias on the part of the researcher (Schutt, 2006). Although post-positivism represents an improved version of positivism, it should be stated clearly that this does not of itself place it beyond criticism. Some scholars have associated social studies with a high degree of complexity to just understand through the paradigms of quantitative analysis, as they need a qualitative analysis that is in-depth, and therefore the objectivity apparently offered by positivism cannot be guaranteed (Johnson and Durberly, 2000). From a perspective of methodology, post-positivism proposes an empirical measurement and observation, although it also acknowledges that bias in research can never be avoided completely (Saunders *et al.*, 2012). For instance, one source of such potential bias is the belief that the researcher places on the very values most likely to be embedded in the logics through which

the research topic is originally selected, and the methodology and conduct of the research process. (Saunders *et al.*, 2012). Post-positivism as a form of thinking could only, by definition, have followed positivism, thereby challenging the notion of knowledge considered as a source of absolute truth and recognizing that there is no certainty about claims arising from the study of human behavior and actions (Creswell, 2009). Any ‘knowledge’ developed through the lens of post-positivism is based on objective observation and measurement of reality. This suggests that developing behavioral measures of individuals is paramount for a post-positivist. Therefore, the acceptable approach for research in a post-positivist perspective is that the initial step should be to offer a theory and then engage in data collection that either refutes the theory or supports it (Creswell, 2009).

### **3.3.3 Constructivism**

Constructivists believe it is impossible to make any objective statement regarding the real world because nothing perceived as real world exists, and that the world is socially constructed. Their belief is that the social construction of the world is a social phenomenon that can never be examined through objective methods of natural science (Bryman and Bell, 2015). Their belief in non-objectivity methodologies, leads constructivists to employ a qualitative approach to understand the social behavior and the meaning it has in a more depth, instead of looking for a way to explain it. According to them, the construction of reality can be elicited through the interaction between the respondent and the researchers and interpreted through the techniques of qualitative analysis. Under the constructivist lens, the goal of any research is to rely mostly on the view of the participant regarding the situation under study. The background of the researcher then shapes their interpretation and they position themselves to acknowledge how their personality influences their interpretation of cultural and historical experiences (Creswell, 2009).

The current thesis is never seeking to understand the meaning behind employee engagement; rather, it adopts the use of existing constructs of the JDR model to understand the antecedents and outcomes of work intensification on employee engagement. For this reason, therefore, the approach of constructivism is not fit for the study.

### ***3.3.4 Critical Realism***

Critical realism as a research paradigm has, with the passage of time, been shaped by political, social, cultural, ethnic, economic, and gender factors and then undergone a crystallization of its structures into what has been considered as ‘real’ (Guba and Lincoln, 1998). Critical theory refutes the principles of both positivism and post-positivism as it posits that each of these paradigms are linked interactively, and not only do they influence the subject under inquiry, but also this influence leads to a value in mediated findings (Guba and Lincoln, 1998). From the perspectives of methodology, critical theory attempts to reveal how the shaping of factors and structures may determine the human actions through the use of either quantitative or qualitative techniques.

### ***3.3.5 Pragmatism***

As a research paradigm, pragmatism arises out of situations, consequences, and actions rather than antecedent conditions (Creswell, 2009). Pragmatism posits that instead of focusing on the research methodology, the researcher must focus also on the research problem and make use of all the available approaches to gain an understanding of the problem (Creswell, 2009). In other words, it could be focusing on the research problem and then using pluralistic approaches to understand it (Tashakkori and Teddlie, 1998). In the view of Creswell (2009), pragmatism does not show any commitment to particular beliefs or a philosophical system. It equips the

researcher with the freedom of choice to select the methodology and techniques that best meets the needs and purposes of the research.

### **3.4 Choosing a Paradigm**

Following the above discussions of the various paradigms, it is worth asking which paradigm should be adopted for the current study. Underlying this question are three fundamental questions of epistemology, ontology, and methodology as addressed by the research paradigms discussed above; it could also be influenced by the belief/s that the researcher has developed, over time and with commitment and experience, regarding the topic. Moreover, adopting a paradigm will further influence the research method to be used in the study, the design as well as its implementation. According to Creswell (2011) several factors influence the world view of a researcher such as: a) area of discipline, b) supervisor's belief and other faculty; c) past experiences of the researchers. Following this discussion and the discussions of the paradigms above, the researcher opted for a positivist approach that is still under philosophical debate. In the view of Johnson and Clark (2006) the most important issues, apart from pursuing whether the research is philosophically informed, is how well the researcher is able to reflect on the choices of philosophy and defend them using the alternatives available. Saunders *et al.* (2012) have contemplated in the recent past that no philosophical choice of one researcher outdoes that of any other. They are each better conversant with certain different topics and will become more so depending on the chosen matter for research. The purpose of this study is likely to be addressed well from a positivism paradigm of the philosophical debates. The researcher prefers the positivism paradigm over others, although it is acknowledged that this paradigm is quite difficult to pursue in the context of social research. Therefore, positivism as a paradigm will not fit this research as desired and as far as reality is concerned; hence the researcher opted for a

post-positivist paradigm. In a nutshell, positivism posits that reality can be observed objectively without the researcher interfering. On the other hand, post-positivism advocates that empirical reality exists, although the understanding we have for it is limited by complexities including potential or actual bias, conscious or otherwise, on the part of the researcher (Schutt, 2006). Like positivism, post-positivism has been criticized for its approach structure. Nevertheless, this research found it to be the most relevant and appropriate paradigm for the study. This is due to the notion that there is need to determine and examine the causes (in this case work intensification) that impact the outcome variable (in this case work engagement and employee outcomes, but under the influence of JD-R model variables) (Creswell, 2011).

### **3.5 The Choice of Quantitative Approach**

Discussion in the previous section showed that the choice of research approach is majorly influenced by the philosophical position. Nevertheless, it can also be influenced by the researcher's aim and the research questions (Creswell, 2009). The current study is not attempting to generate new theory from the existing data, but aiming to test and extend an existing theory. As a result, an inductive approach is not allowed as it necessitates the use of a qualitative approach for research. The current study centres on creating an understanding of how work intensification under the resources of JD-R model influences employee engagement and employee outcomes at both team level and individual level. Therefore, a deductive approach is used for research. The deductive approach is likely to explain the relationship between the variables through employing a structured methodology that can facilitate replication (Gill and Johnson, 2010). Since the study of Kahn (1990) that employed a qualitative approach to study employee engagement, the other studies have been dominated by the quantitative approach that has led to a significant development of the antecedents and the outcomes. Also, the education,

training and most essentially the past experiences of the present researcher have in many ways influenced the approach to its conception and design. The researcher is well trained in the fundamentals of quantitative research as compared to the qualitative approach, and also aware of the limitations that accompany quantitative research, such as being highly structured: a notion that confines the researcher to work under particular set of rules. The researcher recognized that within the study, a research model proposing the relationship among the variables was appropriate, thereby leading to the adoption of quantitative research.

### **3.6 The Research Context**

#### ***3.6.1 Target Population***

The unit of analysis in this thesis is professional employees working in a team, or as individuals and managers responsible for managing teams, in Chinese Manufacturing companies. Several reasons have led to choosing to Chinese manufacturing companies. Firstly, in the context of development, manufacturing companies have become important contributors to the economy. Secondly, the labor force in China continues to diversify and grow everyday, leading to a need to study how work intensification influences engagement of employees and performance, owing to the notion that China has people from different religions in a diversified culture, and hence with a range of values, expectations *etc.* in their lives. In addition to these factors, Chinese manufacturing companies create employment which increase the source of employment.

The current research is likely to measure work intensification as a HR practice when the managers are surveyed and observed through responses given, and again measure work intensification in the context of the employees alongside other JD-R variables (Kinnie *et al.*, 2006). The role and influence of managers has been studied in various contexts that involve



strategic management, implementation of strategies, and innovation. Their influence on making China achieve global competition has led to increased job requirements and, in turn, to work intensification. While Chinese managers tend to accept work intensification as a fact of life, little has yet been done to show how it affects employee engagement and the employee outcomes in the broad context of a JD-R model. However, it is the experience or perception of the employees about the implementation of management practices. For this reason, and in order to obtain the greatest statistical strength for testing the hypothesis, the study consulted 100 teams, with each team containing at least three members, yielding over 500 individual participants. This would reflect a broad enough range of responsibilities to allow some worthwhile, if appropriately cautious, generalization of the results.

Considerable evidence has shown that HRM practices vary significantly in accordance with the size of the organization and its goal. Thus, only organizations with large number of employees such as 1000 were encapsulated in the study. This is attributed to the fact that larger organizations adapt to participative work practices faster compared to smaller organizations. Also, these organizations adapt well to a highly developed internal labour market, intensive training and development practices for better job outcomes (Jackson, Schuler and Rivero 2006). All these traits of organizations suit the context of the current study.

### ***3.6.2 The Quantitative Study Applied to the Research***

Hussey and Hussey (1997) asserted that it is possible to objectively measure the behavior of human beings. The current study examined the extent to which high-performance work practices (work intensification) affected employee outcomes via employee engagement under the interventions of employee job crafting, servant leadership, and employee *Guanxi*. The major aim

was to test the linkages between a defined set of variables using scalar measures whose inputs were used to compile a data. The use of scales is suitable for quantitative study as it allows for large amount of data to be collected in the pursuit of determining in detail the effects of work intensification on employee engagement. The aim of the quantitative component used for the study was to answer the research questions presented at the beginning of this chapter. In the following sections a description of the sampling strategy is provided along other factors such as controlling for common bias, pre-power analysis, procedure for data collection, the instrument used and the techniques for data analysis.

### ***3.6.3 Sampling Strategy***

Sampling is intended to gain information about a population by a scientific choice of representative cases. Therefore, accurate sampling methods and a comprehensive sampling frame are the foundation of empirical surveys. Sampling methods can be broadly divided into probability sampling and non-probability sampling. Probability sampling includes simple random sampling, systematic sampling, stratified sampling and cluster sampling. These methods are based on probability theory and therefore each case with the characteristics the researcher is interested in has the same chance of being selected. These methods are widely used in large-scale surveys. Non-probability sampling includes four types: reliance on available subjects, purposive or judgemental sampling, snowball sampling and quota sampling (Saunders *et al.*, 2012). If it is impossible to obtain a sampling list or the research has research intentions, non-probability sampling would be used.

A sampling frame is a list or ‘quasi-list’ of elements from which a probability sample is selected (Saunders *et al.*, 2012). As this is a multi-level research project including team and individual levels, representative manufacturing firms were chosen and all their working teams

included into the investigation. The sample for this study is principally employees in manufacturing firms in the most developed regions of China. In this research, manufacturing organizations in such areas were chosen for several reasons. First, those regions are the centres of China's manufacturing industry. Second, the author has more than 27 years of work experience in those areas and is familiar with manufacturing firms within it. Third, those are the pioneer areas which introduced FDI and learned to manage firms with Western-style management systems. Integrating all these traits of manufacturing firms in such regions, employees in manufacturing firms with high-level intensified work design in highly developed regions were chosen as the research field.

There is a possibility that data can be collected from every possible scenario. However, most of the time, it will be impossible to collect such data due to time constraints, money, and accessibility issues. Sampling offers methods that make it possible for the researcher to reduce the amount of data required, through considering data from a small group rather than all the possible cases for the study. Depending on the research questions and the results desired, the researcher selects a sampling technique. Literature identifies two sampling methods, namely probability and non-probability sampling. In contrast with the qualitative approach, quantitative analysis bases its methodology on the probability sampling method. Probability sampling gives every subject an equal chance of being selected and facilitates generalization of the findings and the statistical inferences. The process of probability sampling involves four stages. 1) Defining the target population: for this study, both private and public companies were chosen. 2) Determining a suitable frame in the perception of the research questions: in relation to this study, the suitable sampling frame was a list of both private and public companies in China. 3) Specifying the method of sampling: for the current study, all the managers and employees

willing to be participants in the study were invited, and therefore a strict probability in the sampling was never applied. 4) Making a decision on the suitable sample size: in this study, the size of the sample was governed by several factors:

- The form of analysis that the study was going to take, and the minimum number of cases required to perform the analysis.
- The margin of error to be tolerated: that is, the accuracy level for the estimates from which the sample will be made.
- The confidence interval: this is the level of certainty accompanied by the data collected, as a representative of the characteristics of the entire population.

#### ***3.6.4 The study sample***

Prior to collection of data, invitation letters were sent to gatekeepers in manufacturing companies that the researcher identified through personal networks. All such gatekeepers are in senior managerial posts, and the identified companies were believed to be those that would be willing to participate. Thus, a non-probability purposive sampling was used to determine the potential researched companies through networking. Three companies showed willingness to participate: two are public listed, and one is a private company.

#### ***3.6.5 Controlling for Common Method Bias***

Various scholars have considered the validity of cross-sectional approach used in some studies, particularly in relation to the concerns of common method bias and the interpretation of casual conclusions (Rindfleisch *et al.*, 2008). Some scholars such as Podsakoff *et al.* (2012) have claimed that the common method bias is an issue to various researchers and there is need to do whatever that is possible to control it: such bias can cause inflation or attenuation to the

relationship, and the validity of the relationships between the scales of measurement could be threatened (Spector, 2006).

To gain control of common method bias, the current study followed various techniques proposed by Podsakoff and colleagues (2012). First, the scales of measurement for use in the study were designed to encourage, facilitate and increase quick response from the participants through minimization of task difficulty. These scales embraced clarity and concision in language to allow easy understanding by the manager and employee participants. Moreover, all the scale points used in the study were labelled rather than just using the endpoints as proposed by Podsakoff *et al.* Secondly, to maximize the motivation of the respondents and the likelihood of accurate answers, the purpose of the study was explained clearly to the participants. The participants were also told how the information would be used, and the potential benefit the research would contribute to their companies. Self-expression was another factor that was enhanced through explaining to the participants that their views were fundamentally crucial to the study. In addition, there was need to avoid the socially desirable bias of the participants through assuring them that within and for the purposes of the study, their identity would remain anonymous. As respondents, they were assured that no response is wrong or right, and that therefore responding from an honest perspective was not only possible and permissible, but crucial. Further, it was brought to the attention of the participants that everyone could have a different opinion about employee engagement and work intensification. Nevertheless, no one should be too quick to judge another person. Finally, the study tried to reduce any incidental bias through using scales of measurement: sound psychometric properties were used in the selection of the properties.

### 3.7 Pre-analysis (Power analysis for the determination of sample size)

Cohen (1992) asserted that, in order to determine the size of the sample required for the study, it is necessary to conduct a prior power analysis. Statistical power is perceived as central to the regression analysis as it can influence the generalization and the robustness of the study results. Sample size forms the primary component required to determine adequate power, crucial in turn in minimizing the Type II error which occurs when the researcher mistakenly overlooks any significant differences in the hypothesized affiliations (Mone *et al.*, 1996). In early research by Green (1991) four issues that related to statistical power were noted: magnitude of effect, level of alpha, size of the sample, and the prediction frequency. The current study used Green's approach to determine the size of the sample. The approach was a modification of the one used by Harris (1985) and a two-step rule of thumb from the power analytic approach of Cohen (1988) was used to develop it.

#### ***Green's (1991) Approach***

Cohen (1988) determined that the minimum case number needed to make one independent variable is 53. Nevertheless, in the research of Green (1991) it was found that the results would be more effective if the studies incorporated the medium effect with smaller predictor numbers ( $IV < 7$ ). Adding the predictor numbers conservatively heightens the size of the sample. This formula was a revision of the approach used by Harris (1985). Later Tabachnick and Fidell (2007) recommended the use of the following formula to obtain a sample size:

$$N = 50 + 8 IV$$

Where: N= sample size

50= number of cases (constant)

IV=number of predictors

Several limitations have been identified, and become associated, with the usage of this approach. First, in any case where the sample is small, the formula breaks down (Tabachnick 1989). In another instance where the sample comprises less than 100 cases, errors arising from the within the estimation of the correlation in the small samples will lead to the production of low power that is unacceptable, no matter the ratio used. Secondly, the measure fails to account for the effect size. In the perception of Cohen (1988) if the regression analysis has different effect sizes, then a variability occurs in the number of subjects required. Third, this method never accounts for the level of significance. Therefore, using this method results in substantial bias.

Later, Green revised the formula and came up with a two-step rule of thumb from the analytic power approach of Cohen (1988). The first step involves determining the lambda (L). For every additional predictor ranging from 2 to 10, L is noted to increase by 1.5, 1.4 and continues consecutively up to 0.7. For additional predictors occurring after 10, L is noted to increase by 0.6. The quantity of independent variables is presented by  $m_1 < 11$  and  $m_2 = m - m_1$ .

$$\text{Step 1: } L = 6.4 + 1.65 (m_1) - 0.05 (m_1)^2 + 0.6 (m_2)$$

In this study, one independent variable was used, three moderator variables and four control variables. They included:

- Work intensification: an independent variable.
- Moderator variables: servant leadership, *Guanxi*, and job crafting.

Therefore, as far as this study is concerned,  $L = 6.4 + 1.65 (10) = 22.9$ .

In the regression analysis,  $f^2$  and  $R^2$  represent the effect size as denoted by Cohen (1988) where  $f^2$  is  $R^2 / (1 - R^2)$ . For the effect sizes in the categories of small, medium, and large, the  $R^2$  values are 0.2, 0.13, and 0.26 respectively while the  $f^2$  is equated to 0.02, 0.15, and 0.35 respectively. The effect size forms the researcher's approximation of the expected magnitude

difference in the expected linkage and association expressed in the variable outcomes of the work intensification, employee engagement and employee outcomes. An approximation of the effect size is quite a difficult aspect in the planning of a sample size (Duffy, 2006). The smaller the effect size anticipated, the larger is the required sample size. Therefore:

$$\text{Step 2: } N = L/f^2$$

*Table 3.1: Effect Size for the study*

Effect Size	$N = L/f^2$
Small effect size	$N = 22.9/0.02 = 1,145$ cases
Medium effect size	$N = 22.9/0.15 = 152$ cases
Large effect size	$N = 22.9/0.35 = 65$ cases

The linkage between work intensification, employee engagement, and employee outcomes in the perception of this study has a medium effect size owing to the notion that the topic of work intensification has not been largely researched in China. Therefore, the research used a conservative way of defining the effect size for the research. That is, the research was expected to obtain a medium effect size as discussed by Cohen. The expected sample size was an average of 100 teams that had 3-5 individuals. Consequently enough, power analysis assisted in determining the size of the sample needed for statistical judgment with accuracy and reliability.

### **3.8 Procedure for Data Collection**

The study entailed close contact with the participants who were subjected to conditions of work and then evaluated using the control variables. The study had a sample of 121 teams from the various companies in the most developed regions of China, including Guangdong province, Jiangsu province, and Chongqing municipal city. The team size ranges from 2 to 28 with an average of 4.82. Two waves of data collection were applied for the study where at time point 1, team members were asked report perceived levels of team work intensification, team job



crafting, servant leadership, individual work intensification, individual job crafting, and *Guanxi* with their leader. Team leaders were invited to rate team work intensification and team job crafting. At time point 2, team members were asked to report team work engagement, team task performance, individual work engagement, individual task performance, job satisfaction, and health & wellbeing (GHQ-12); team leaders were invited to evaluate team work performance, and team work engagement. Some of the consulted variables were not included into the conceptual/theoretical model of this thesis, but may be of use for further explorations related to work intensification and engagement. At the same time, each team leader was asked to rate every individual member's task performance. The data collection lasted for 5 months, with all the ethical measures put into consideration.

### **3.9 Ethical Considerations**

Ethical consideration and procedures were developed to reflect best research practice and the research is governed by the Aston Business School Research Ethics committee. A formal research proposal was submitted together with the ethical application, which outlined the procedure and prevention of harm of participants. The research adhered to the procedures of ethics guidelines as per Aston University's guidelines. Ethical approval was obtained from the Aston Business School Research Ethics Committee prior to data collection (see Appendix). The researcher's access to the researched organizations was undertaken with the consent of top managers and all the participants were included based on their own willingness; before the data collection was conducted, all the potential participants signed consent forms.

During the study, participants were also reassured about the anonymity of their data and the removal of all identifying information as depicted in the consent form. The final dataset was completely anonymised, relinquishing any opportunity to identify a respondent. No question

within the questionnaires concerned any information that could precisely locate a participant, and all the analysis would be conducted at the sample level, rather focusing on a single respondent. Moreover, the research included only those people in the research who returned the consent forms, while any participant who had returned the consent forms could withdraw from the study at any point. Finally, a cover letter was provided to the research organisations and all participants, informing them about the confidentiality and anonymity, in order to protect their reputation from harm.

### **3.10 Summary**

This chapter has explained the research methodology adopted for the study through demonstrating an understanding of the quantitative approach used as a research paradigm. The methods employed, instruments, and other techniques used for this study were also discussed. The research design, including the choice of research methods, including a quantitative approach, survey method and sampling strategy, fits the purpose of this research. The methodological considerations enable the research methods to fit the research questions. The research questions are concerned with the relationship between key variables, including team/individual work intensification, work engagement, servant leadership, and job crafting, *Guanxi*, and employee outcomes. All the focal constructs have been defined and measured in the literature with mature scales. Theoretical relationships between these constructs have also been tested. However, the empirical evidence is inconsistent. This research is aimed to test and revise current theory rather than create original theory. Therefore, this research needs to employ a large-scale quantitative dataset and necessarily adopts a survey research approach using quantitative questionnaires. Moreover, this research looks at cross-level relationships between variables at team and individual levels. Although all the data are collected at individual level, team level construct is

measured by the aggregation of individual evaluation with referent-shift strategy. The next chapter presents the main results and discussion on the same.

## CHAPTER IV: DATA ANALYSIS AND RESULTS

### 4.1 Introduction

This chapter analyses the data to test the hypotheses developed in chapter 2. The testing of the hypotheses is to answer the research questions generated in this chapter. This chapter first reported the description of the research sample.

Second, the chapter examined the measurement validity and reliability. The results indicate good validity and reliability for the measurement, laying a sound foundation for the relational analysis.

Third, the chapter reported the results of ordinary least square regression analyses, which are used to test the hypotheses. Two out of 7 hypotheses are not supported: unexpectedly, the relationship between individual work intensification and work engagement is positive, while the moderating effect of *Guanxi* is not significant.

Lastly, the chapter summarizes the findings of the data analysis: that most (5 in 7) of the proposed relationships are supported by the empirical evidence.

### 4.2 Final Sample Description

The original data were collected from 583 employees in 121 teams. The response rate is 80.67%. The average of team size is 4.82, and SD is 3.70. Team sizes range from 2 to 28. The frequencies of team sizes are presented in table 4.1.

*Table 4.1: Frequencies of team size for 121 teams*

Team size	Frequencies	Percentage
2	16	13.2
3	36	29.8
4	20	16.5
5	20	16.5
6	11	9.1
7	4	3.3
8	4	3.3
9	4	3.3
11	3	2.5
12	1	0.8
28	2	1.7

N = 121 teams

In order to eliminate the potential bias in the data collected from teams with very small or very large number of members, we conducted analysis with subsample excluding the 16 teams with two members and 2 teams with 28 members. Thus, the final sample size is 495 employees from 103 teams (see details in Table 4.2).

*Table4.2: Frequencies of team size for final sample (103 teams)*

Team size	Frequencies	Percentage
3	36	35.0
4	20	19.4
5	20	19.4
6	11	10.7
7	4	3.9
8	4	3.9
9	4	3.9
11	3	2.9
12	1	0.9

N = 103 teams

### 4.3 Measurement Validity and Reliability

LISREL and SPSS24.0 were utilized to test the validity (*i.e.*, confirmative factor analysis, CFA) and reliability of our focal variables. First, the results of reliability and validity tests for team level measurement (*i.e.*, team work intensification) are presented; second, the results for individual level measurements (*i.e.*, individual work intensification, work engagement, job crafting, servant leadership, *Guanxi*, task performance, job satisfaction, and health & wellbeing) are reported.

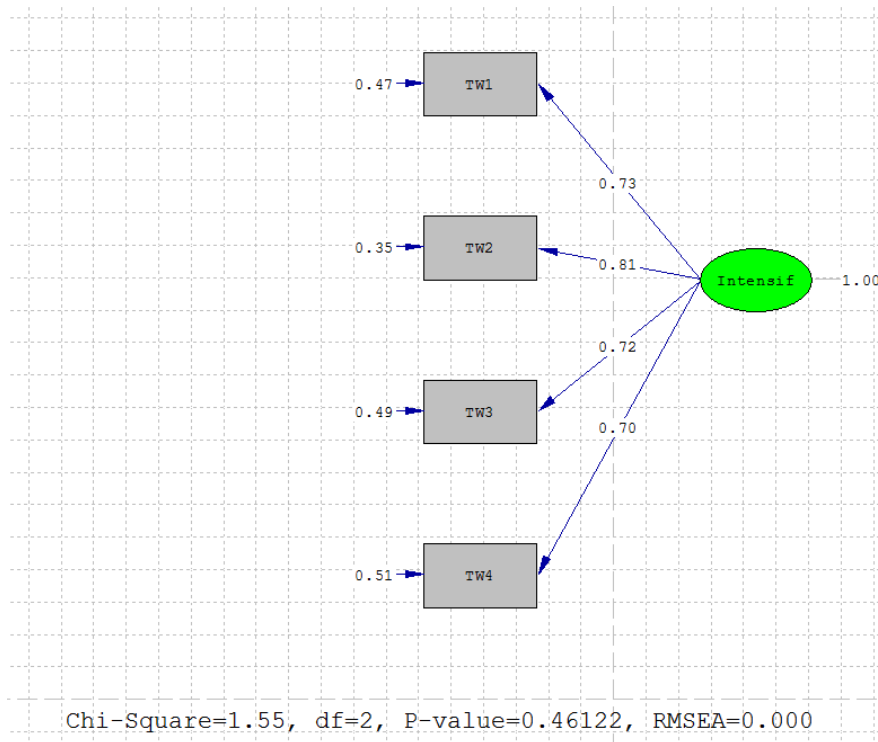
#### 4.3.1 Team-level Measurements

**Team Work Intensification.** Adapted from Kubicek and colleagues' (2012) measurement, team work intensification was rated by team member at Time point 1 with four items on a 5-point Likert scale; *rwg* was calculated to determine interrater agreement (James *et al.*, 1984, 1993), ICC(1) to examine the proportion of variance in ratings attributable to team membership, ICC(2) to assess the reliability of team mean difference (Bliese, 2000). *F* test from a one-way analysis of variance contrasting team means on was also conducted to test whether average scores differed significantly across teams. The results showed that for work intensification aggregation, the mean *rwg* was .85 (SD = .15); ICC(1) and ICC(2) were 0.06 and 0.26, respectively; and  $F = 1.35, p < 0.05$ . These values are considered acceptable for data aggregation with small team size (Bliese, 2002; Han *et al.*, 2021). Thus, it was appropriate to aggregate followers' responses of work intensification to the team level (table 4.3).

Then, we conducted CFA using LISREL to test the measurement model of team work intensification. The hypothesized one-factor model demonstrated adequate model fit ( $\chi^2(2) = 1.55, p > .05$ ;  $SRMR = .01$ ,  $ILI = 1.00$ ,  $CFI = 1.00$ ,  $RMSEA = 0.00$ ). As shown in figure 3.1 and table 3.4, the factor loadings of all items were larger than 0.60, exceeding the criteria of Tabachnicka and Fidell's (2007). Moreover, the Cronbach's  $\alpha$  of the scale was 0.82, greater than 0.70, indicating ideal reliability of the construct (Lance, Butts, and Michels, 2006). Thus, both validity test and reliability test for team work intensification were passed (figure 4.1).

*Table 4.3: Validity and reliability analysis of team work intensification*

Items	Validity Test	Reliability Test
Variables: Team work intensification	Standard factor loading value	Cronbach's $\alpha$ = 0.82
1. The number of things which have to be done at the same time	0.73	
2. The number of work tasks per working day	0.81	
3. The work pace	0.72	
4. The amount of time pressure (due to deadlines)	0.70	

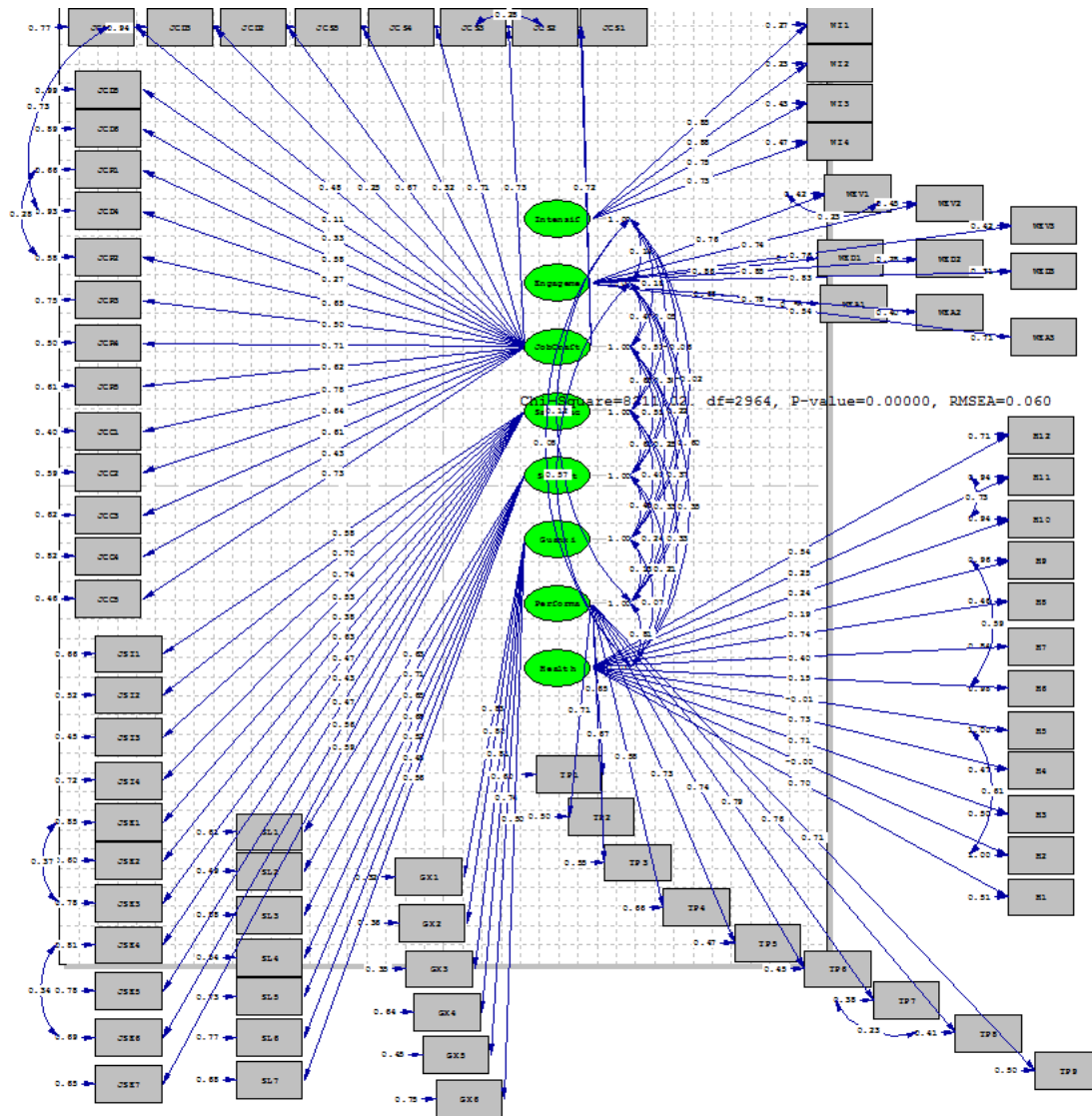


*Figure 4.1: CFA results of Team Work Intensification*





With moderate modification, we set the error covariance free between several pairs of items, the model fit was improved a lot ( $\chi^2(2964) = 8311.02$ ,  $p < 0.05$ ; SRMR = 0.07, ILI = 0.80, CFI = 0.80, RMSEA = 0.06). Figure 4.3 shows the factor loadings of CFA analysis indicating model modification.



### 4.3.3 Individual Work intensification

Adapted from Kubicek and colleagues' (2012) measurement, employee work intensification was self-rated by team member at Time point 1 with 4 items on a 5-point Likert scale. Table 4.4 reported the validity and reliability results of employee work intensification. As shown in the table, the factor loadings of all items were larger than 0.70, meeting the criteria of Tabachnicka and Fidell's (2007).

*Table 4.4: Validity analysis of employee work intensification*

Items	Validity Test	Reliability Test
Variables: Employee work intensification	Standard factor loading value	<i>Cronbach's <math>\alpha = 0.82</math></i>
1. The number of things which have to be done at the same time	0.86	
2. The number of work tasks per working day	0.88	
3. The work pace	0.75	
4. The amount of time pressure (due to deadlines)	0.72	

### 4.3.4 Individual Work Engagement.

Individual work engagement was self-reported by team member at Time point 2 using Schaufeli, Bakker, and Salanova's (2006) nine-item, three-dimensional measurement on a 5-point Likert scale. The three dimensions are vigour, dedication and absorption, three items for

each. Table 4.5 showed the validity and reliability results of work engagement. As shown in the table, the factor loadings of all items loaded to its corresponding sub-dimension were larger than 0.60, meeting the criteria of Tabachnicka and Fidell's (2007). The Cronbach's  $\alpha$  were 0.84, 0.89, 0.77 for vigour, dedication and absorption, respectively. The overall Cronbach's  $\alpha$  for the whole construct was 0.92, indicating ideal reliability of the construct (Lance, Butts, and Michels, 2006).

*Table 4.5: Validity and reliability analysis of employee work engagement*

Items	Validity Test	Reliability Test
	Standard factor	<i>Overall Cronbach's <math>\alpha</math></i>
Variables: Employee work engagement	loading value	= 0.92
<b><i>Sub-dimension: Vigour</i></b>		
1. At my work, I feel bursting with energy	0.79	
2. At my job, I feel strong and vigorous	0.77	0.84
3. When I get up in the morning, I feel like going to work	0.76	
<b><i>Sub-dimension: Dedication</i></b>		
4. I am enthusiastic about my job	0.87	0.89
5. My job inspires me	0.84	
6. I am proud of the work that I do	0.82	

### ***Sub-dimension: Absorption***

7. I feel happy when I am working intensely	0.65	
8. I am immersed in my work	0.77	0.77
9. I get carried away when I am working	0.53	

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### ***4.3.5 Individual Job Crafting***

We invited team members to rate their job crafting at Time point 1 using the 21-item, four-dimensional measurement of Tims, Bakker, and Derks' (2012). The four dimensions are increasing structural job resources, decreasing hindering job demands, increasing social job resources and increasing challenging job demands. All the dimensions were assessed with a 5-point Likert scale. Table 4.6 reported the validity results of job crafting and its sub-dimensions. Moreover, the overall Cronbach's  $\alpha$  of the scale was 0.89, and the Cronbach's  $\alpha$  of all sub dimensions were 0.79, 0.74, 0.82, and 0.83, all greater than 0.70, indicating ideal reliability of the construct (Lance, Butts, and Michels, 2006).

*Table 4.6: Validity and reliability analysis of employee job crafting*

Items	Validity Test	Reliability Test
		<i>Overall</i>
Variables: Employee job crafting	Standard factor loading value	<i>Cronbach's <math>\alpha</math></i>  <i>= 0.89</i>

***Sub-dimension: Increasing structural job resources***

1. I try to develop my capabilities	0.75	
2. I try to develop myself professionally	0.76	
3. I try to learn new things at work	0.75	0.79
4. I make sure that I use my capacities to the fullest	0.72	
5. I decide on my own how I do things	0.33	

***Sub-dimension: Decreasing hindering job demands***

6. I make sure that my work is mentally less intense	0.48	
7. I try to ensure that my work is emotionally less intense	0.68	
8. I manage my work so that I try to minimize contact with people whose problems affect me emotionally	0.25	0.74
9. I organize my work so as to minimize contact with people whose expectations are unrealistic	0.28	
10. I try to ensure that I do not have to make many difficult decisions at work	0.11	

11. I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once	0.33	
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***Sub-dimension: Increasing social job resources***

12. I ask my supervisor to coach me	0.60	
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13. I ask whether my supervisor is satisfied with my work	0.65	
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14. I look to my supervisor for inspiration	0.51	0.82
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15. I ask others for feedback on my employee outcomes	0.70	
--	------	--

16. I ask colleagues for advice	0.62	
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***Sub-dimension: Increasing challenging job demands***

17. When an interesting project comes along, I offer myself proactively as project co-worker	0.76	0.83
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18. If there are new developments, I am one of the first to learn about them and try them out	0.61	
---	------	--

19. When there is not much to do at work, I see it as a chance to start new projects	0.59	
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20. I regularly take on extra tasks even though I do not receive extra salary for them	0.42
21. I try to make my work more challenging by examining the underlying relationships between aspects of my job	0.72

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#### ***4.3.6 Individual Job Satisfaction***

Individual job satisfaction was evaluated by team member using O’Driscoll and Randall’s (1999) eleven-item, two-dimensional measurement at Time point 2 on a 5-point Likert scale. The two dimensions are intrinsic rewards (four items) and extrinsic rewards (seven items). Questions started with “How satisfied are you with the ...”. Table 4.7 reports the validity and reliability results of reward satisfaction. The Cronbach’s  $\alpha$  were 0.76 and 0.76 for intrinsic rewards and extrinsic rewards, and the overall Cronbach’s  $\alpha$  for the whole construct was 0.83, indicating ideal reliability of the construct (Lance, Butts, and Michels, 2006).

*Table 4.7: Validity and reliability analysis of employee job satisfaction*

Items	Validity Test	Reliability Test
		<i>Overall Cronbach’s</i>
	Standard factor loading	
Variables: Employee job satisfaction	value	$\alpha$
		$= 0.83$
<b><i>Sub-dimension: Intrinsic rewards</i></b>		
1. Variety of work performed	0.57	0.76



2. Amount of challenge in the job	0.67	
3. Opportunities to use your skills and abilities	0.72	
4. The amount of freedom you have to decide how to perform your work	0.52	
<b><i>Sub-dimension: Extrinsic rewards</i></b>		
5. Financial Rewards (Pay and Fringe Benefits)	0.42	
6. Job Security	0.65	
7. Opportunities for Promotion or Advancement	0.49	0.76
8. Relations with Co-Workers	0.48	
9. Physical Working Conditions	0.48	
10. Support from Others	0.59	
11. Praise for Employee outcomes	0.60	

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#### ***4.3.7 Servant Leadership***

We invited each team member to rate their perceived team servant leadership at Time 1 using Liden and colleagues' (2014) seven-item measurement on a 5-point Likert scale. Table 3.9

reported the validity results of team servant leadership. As shown in table 4.8, the factor loadings of all items were considered acceptable.

*Table 4.8: Validity and reliability analysis of team servant leadership*

Items	Validity Test	Reliability Test
Variables: Team servant leadership	Standard factor loading value	<i>Cronbach's <math>\alpha</math></i> = <i>0.80</i>
1. My manager can tell if something work-related is going wrong (Responsibility)	0.63	
2. My manager makes my career development a priority (Talent management)	0.71	
3. I would seek help from my manager if I had a personal problem (Employee support)	0.65	
4. My manager emphasizes the importance of giving back to the community (Social responsibility)	0.68	
5. My manager puts my best interests ahead of his/her own (Decision freedom)	0.52	
6. My manager gives me the freedom to handle difficult situations in the way that I feel is best (Employee involvement)	0.48	

7. My manager would not compromise ethical principles in order to achieve success (Workplace ethics) 0.57

#### 4.3.8 Individual Guanxi

Adapted from Law and colleagues' (2000) measurement, employee *Guanxi* with leader was rated at Time point 1 with six items on a 5-point Likert scale. Table 4.9 reports the validity results. As shown in the table, the factor loadings of all items were larger than 0.50, meeting the criteria of Tabachnicka and Fidell's (2007).

Table 4.9 : Validity and reliability analysis of employee *Guanxi*

Items	Validity Test	Reliability Test
Variables: Employee <i>Guanxi</i>	Standard factor loading value	<i>Cronbach's</i> $\alpha$ = 0.86
1. During holidays or after office hours, I would call my supervisor or visit him/her.	0.83	
2. My supervisor invites me to his/her home for lunch or dinner	0.80	
3. On special occasions, such as my supervisor's birthday, I would definitely visit my supervisor and send him/her gifts.	0.81	
4. I always actively share with my supervisor about my thoughts, problems and needs and feelings.	0.60	

5. I care about and have a good understanding of my supervisor's family and work conditions	0.74
6. When there are conflicting opinions, I will definitely stand on my supervisor's side.	0.50

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#### ***4.3.9 Individual Task Performance***

Individual task performance was self-evaluated at Time point 2 using Griffin, Neal, and Parker's (2007) 9-item measurement on a 5-point Likert scale. Table 4.10 reports the validity results of task performance. As shown in the table 3.11, the factor loadings of all items were larger than 0.50, meeting the criteria of Tabachnicka and Fidell's (2007).

*Table 4.10: Validity and reliability analysis of task performance*

Items	Validity Test	Reliability Test
Variables: Task performance	Standard factor loading value	<i>Cronbach's <math>\alpha</math></i> = <i>0.90</i>
1. Coordinated your work with team members	0.61	
2. Communicated effectively with your team members	0.66	
3. Provided help to team members when asked, or needed	0.64	
4. Dealt effectively with changes affecting your team	0.56	

(e.g., new members)

5. Learnt new skills or taken on new roles to cope with changes in the way your team works	0.70
6. Responded constructively to changes in the way your team works	0.74
7. Suggested ways to make your team more effective	0.86
8. Developed new and improved methods to help your team perform better	0.84
9. Improved the way your team does things	0.74

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#### ***4.3.10 Individual GHQ-12 (Health)***

Individual health was self-evaluated at Time point 2 using Goldberg and Williams's (1988) 12-item measurement on a 5-point Likert scale. Employees were asked to rate "how often you have carried out the behaviors below over the past month". We reverse coded the items such as "Loss of sleep over worry", and "Couldn't overcome difficulties". Table 4.11 reports the validity and reliability results of health.

*Table 4.11 : Validity and reliability analysis of individual health*

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Items	Validity Test	Reliability Test
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Variables: Individual health	Standard factor loading value	<i>Cronbach's <math>\alpha</math></i> =  <i>0.80</i>
1. Able to concentrate	0.79	
2. Loss of sleep over worry (reverse coded)	0.05	
3. Playing a useful part	0.70	
4. Capable of making decisions	0.72	
5. Felt constantly under strain (reverse coded)	0.05	
6. Couldn't overcome difficulties (reverse coded)	0.23	
7. Able to enjoy day-to-day activities	0.39	
8. Able to face problems	0.73	
9. Feeling unhappy and depressed (reverse coded)	0.27	
10. Losing confidence (reverse coded)	0.32	
11. Thinking of self as worthless (reverse coded)	0.33	
12. Feeling reasonably happy	0.54	

## 4.4 Data Analysis

### 4.4.1 Descriptive Analysis

Table 4.12 indicates the means, standard deviations and correlations of focal variables and team members' demographic information. As shown in table 4.12, individual work intensification is positively related to work engagement ( $r = 0.14, p < 0.05$ ); and work engagement is positively related to task performance ( $r = 0.56, p < 0.001$ ), job satisfaction ( $r = 0.41, p < 0.001$ ) and health & wellbeing ( $r = 0.38, p < 0.001$ ), respectively. These provide preliminary support for our hypotheses.

### 4.4.2 Test of Common Method Bias

Even though we employed a two-wave survey design, since all data were self-rated by employees, common method bias may exist (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). We conducted Harman's one-factor test to examine whether affect the results (Podsakoff and Organ, 1986). The variance explained by the first factor from explanatory factor analysis is 20.57%, which is lower than the 50% threshold (Hair *et al.*, 1998). In addition, the variance inflation factor for all variables is lower than 10. Thus, common method bias would not contaminate our results.

### 4.4.3 Hypotheses Testing

With SPSS 26.0, we conducted hierarchy regression analysis and bootstrapping methods to test our individual level hypotheses. Employee's gender, age, education background and length working in the team (*i.e.*, tenure) were all included as control variables when conducting analysis.

Table 4.12 : Descriptive statistics and correlation matrix of variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1.29	0.46	1.00											
2. Age	31.63	5.34	-0.07	1.00										
3. Education	1.68	0.83	-0.07	0.04	1.00									
4. Tenure	2.46	2.36	0.01	0.03	-0.02	1.00								
5. Team work intensification_T1	3.81	0.56	0.00	-0.04	0.07	-0.04	1.00							
6. Individual work intensification_T1	3.76	0.55	-0.02	-0.08	0.07	0.04	0.75** *	1.00						
7. Individual job crafting_T1	3.95	0.35	-0.11*	0.08	-0.03	-0.03	0.15**	0.16** *	1.00					
8. Servant leadership_T1	3.77	0.49	-0.09*	0.04	0.00	-0.03	-0.04	-0.03	0.46** *	1.00				



9. <i>Guanxi</i> _T1	3.12	0.66	-0.11 <sup>*</sup>	-0.08	-0.12 <sup>*</sup> *	-0.08	-0.05	-0.02	0.27 <sup>**</sup> *	0.44 <sup>**</sup> *	1.00			
10. Individual work engagement_T2	3.93	0.53	-0.11 <sup>*</sup>	0.14 <sup>**</sup>	0.07	0.02	0.11 <sup>*</sup>	0.14 <sup>*</sup>	0.43 <sup>**</sup> *	0.31 <sup>**</sup> *	0.22 <sup>**</sup> *	1.00		
11. Individual task performance_T2	3.78	0.63	-0.27 <sup>*</sup> **	0.12 <sup>**</sup>	0.11 <sup>*</sup>	0.01	0.13 <sup>**</sup>	0.11	0.32 <sup>**</sup> *	0.20 <sup>**</sup> *	0.13 <sup>**</sup>	0.56 <sup>**</sup> *	1.00	
12. Individual health and well-being_T2	3.80	0.50	-0.01	0.14	0.00	0.05	-0.04	-0.07	0.19 <sup>**</sup> *	0.16 <sup>**</sup> *	0.09	0.38 <sup>**</sup> *	0.37 <sup>**</sup> *	1.00
13. Individual job satisfaction_T2	3.72	0.41	-0.09 <sup>*</sup>	0.02	-0.11 <sup>*</sup>	-0.04	0.04	0.01	0.49 <sup>**</sup> *	0.49 <sup>**</sup> *	0.39 <sup>**</sup> *	0.41 <sup>**</sup> *	0.24 <sup>**</sup> *	0.29 <sup>**</sup> *

Note: “\*” means  $p < .05$ ; “\*\*” means  $p < .01$ ;  $N=495$ . Demographic variables are coded as follows: gender: male = 1, female = 2. Age was measured in years. Education: 1 = senior high school and below (including technical secondary school); 2 = junior college; 3 = bachelor degree; 4 = master degree and above. Tenure was measured in years. T1 indicates the variable was rated by employees at Time point 1; T2 indicates the variable was rated by employees at Time point 2.

#### 4.4.4 Main Effects

Hypothesis 1 proposes individual level work intensification will be negatively related to individual level work engagement. The results displayed in Table 3.14 indicate that after entering all control variables, employee work intensification is positively associated with employee work engagement ( $b = 0.14$ ,  $SE = 0.04$ ,  $p < 0.01$ ; Model 1). Thus, Hypothesis 1 is not supported and the results indicate an opposite relationship between work intensification and work engagement.

Hypothesis 2 argues individual level work engagement will be positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being. The results displayed in Table 4.13 indicate that after entering all control variables, employee work engagement is positively associated with (a) task performance ( $b = 0.62$ ,  $SE = 0.04$ ,  $p < 0.001$ ; Model 2), (b) job satisfaction ( $b = 0.32$ ,  $SE = 0.03$ ,  $p < 0.001$ ; Model 3), and (c) health & well-being ( $b = 0.35$ ,  $SE = 0.04$ ,  $p < 0.001$ ; Model 4), respectively. Thus, Hypothesis 2 is supported.

*Table 4.13 : Ordinary least squares regression results part 1*

Variables	Work		Task		Job		Health &	
	Engagement		performance		satisfaction		wellbeing	
	T2		T2		T2		T2	
	Model 1		Model 2		Model 3		Model 4	
	<i>b</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Intercept	3.05***	0.24	1.54***	0.23	2.75***	0.17	2.15***	0.21

*Controls*

Gender	-0.11 <sup>*</sup>	0.05	-0.29 <sup>***</sup>	0.05	-0.05	0.04	0.03	0.05
Age	0.01 <sup>**</sup>	0.00	0.00	0.00	0.00	0.00	0.01 <sup>*</sup>	0.00
Education	0.03	0.03	0.04	0.03	-0.07 <sup>**</sup>	0.02	-0.02	0.03
Tenure	0.00	0.01	0.00	0.01	-0.01	0.01	0.01	0.01
<i>Independent variable</i>								
Work intensification_T1	0.14 <sup>**</sup>	0.04						
<i>Mediator</i>								
Work engagement_T2			0.62 <sup>***</sup>	0.04	0.32 <sup>***</sup>	0.03	0.35 <sup>***</sup>	0.04
$R^2$	0.05		0.36		0.19		0.15	
<i>Adjusted <math>R^2</math></i>	0.05		0.35		0.18		0.14	
$F$	5.61 <sup>***</sup>		55.06 <sup>***</sup>		23.01 <sup>***</sup>		17.67 <sup>***</sup>	

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*Notes:*  $N = 495$ . Unstandardized regression coefficients [ $b$ ] are reported. Statistics reported are unstandardized regression coefficients (and standard errors [ $SE$ ]).

T1 indicates the variable was rated by employees at Time point 1;

T2 indicates the variable was rated by employees at Time point 2.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

#### 4.4.5 Mediation effect

Hypothesis 3 posits that Individual level work engagement will mediate the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being. We used the Model 4 of SPSS PROCESS Macro (Hayes,

2013) to test this mediation hypothesis. Results from bootstrapping analysis (with 5000 resamples) reveal employee work engagement would transfer significant positive indirect effect between work intensification and (a) individual level task performance (*indirect effect* = 0.09, *SE* = 0.03, 95% confidence interval [*CI*] = [0.03, 0.15], not including zero), (b) job satisfaction (*indirect effect* = 0.04, *SE* = 0.02, 95% *CI* = [0.01, 0.08], not including zero), (c) health & well-being (*indirect effect* = 0.05, *SE* = 0.02, 95% *CI* = [0.02, 0.09], not including zero). Thus, the mediation effect of work engagement in Hypothesis 3 is supported.

#### 4.4.6 Moderation Effect

We tested our moderation hypotheses using hierarchical regression and simple slopes analysis. Hypothesis 4 predicts individual level *Guanxi* will moderate the relationship between individual level work intensification and work engagement. Following Cohen, Cohen, West and Aiken (2003), work intensification and *Guanxi* were centred. The results summarized in Model 5 in Table 4.14 showed that the interaction term between work intensification and *Guanxi* was not significant ( $b = -0.03$ ,  $SE = 0.02$ ,  $p > 0.05$ , Model 5). Thus, the moderating effect of *Guanxi* in Hypothesis 4 was not supported.

Hypothesis 5 argues individual level job crafting will moderate the relationship between individual level work intensification and work engagement. First, work intensification and job crafting were centred. The results summarized in Model 6 in Table 4.14 showed that the interaction term between work intensification and job crafting was negative and significant ( $b = -0.06$ ,  $SE = 0.02$ ,  $p < 0.01$ , Model 6). Thus, the moderating effect of job crafting in Hypothesis 5 was supported. In order to interpret the results, we followed Aiken and West's (1991) procedures to depict interactions (see Figure 4.4) and conducted a simple slopes analysis. The results indicated that the positive effect of individual work intensification on work engagement was

stronger when job crafting was one standard deviation below the mean (*simple slope* = 0.07,  $p < 0.05$ ), and weaker when job crafting was one standard deviation above the mean (*simple slope* = 0.03,  $p < 0.05$ ), thus supporting Hypothesis 5.

Hypothesis 6 argues individual perceived servant leadership will moderate the relationship between individual level work intensification and work engagement. First, work intensification and servant leadership were centred. The results summarized in Model 7 in Table 4.14 showed that the interaction term between work intensification and servant leadership was negative and significant ( $b = -0.05$ ,  $SE = 0.02$ ,  $p < 0.05$ , Model 7). Thus, the moderating effect of servant leadership in Hypothesis 6 was supported. In order to interpret the results, we followed Aiken and West's (1991) procedures to depict interactions (see Figure 4.5) and conducted a simple slopes analysis. The results indicated that the positive effect of individual work intensification on work engagement was stronger when servant leadership was one standard deviation below the mean (*simple slope* = 0.12,  $p < 0.001$ ), and weaker when servant leadership was one standard deviation above the mean (*simple slope* = 0.07,  $p < 0.05$ ), thus supporting Hypothesis 6.

*Table 4.14: Ordinary least squares regression results part 2*

Variables	Work Engagement_T2					
	Model 5		Model 6		Model 7	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Intercept	3.41***	0.17	3.63***	0.15	3.57** *	0.16

### Controls

Gender	-0.07	0.05	-0.06	0.05	-0.08	0.05
Age	0.02***	0.00	0.01*	0.00	0.01**	0.00
Education	0.05	0.03	0.05	0.03	0.04	0.03
Tenure	0.01	0.01	0.01	0.01	0.01	0.01

### Independent variable

Work intensification_T1	0.08**	0.02	0.05*	0.02	0.09** *	0.02
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### Moderator

Guanxi_T1	0.13***	0.02				
Job crafting_T1		0.23***	0.02			
Servant leadership_T1				0.17** *		0.02

### Interactions

Work intensification_T1 × Guanxi_T1	-0.03	0.02
-------------------------------------	-------	------

Work intensification_T1 × Job crafting_T1	-0.06 <sup>**</sup>	0.02	
Work intensification_T1 × Servant leadership_T1		-0.05 <sup>*</sup>	0.02
$R^2$	0.11	0.23	1.56
Adjusted $R^2$	0.10	0.22	1.42
$F$	8.98 <sup>***</sup>	20.34 <sup>***</sup>	12.72 <sup>***</sup>

Notes:  $N = 495$ . Unstandardized regression coefficients [ $b$ ] are reported. Statistics reported are unstandardized regression coefficients (and standard errors [ $SE$ ]).

T1 indicates the variable was rated by employees at Time point 1:

T2 indicates the variable was rated by employees at Time 2.  
<sup>\*</sup>  $p < .05$ , <sup>\*\*</sup>  $p < .01$ , <sup>\*\*\*</sup>  $p < .001$ .

Work engagement\_T2

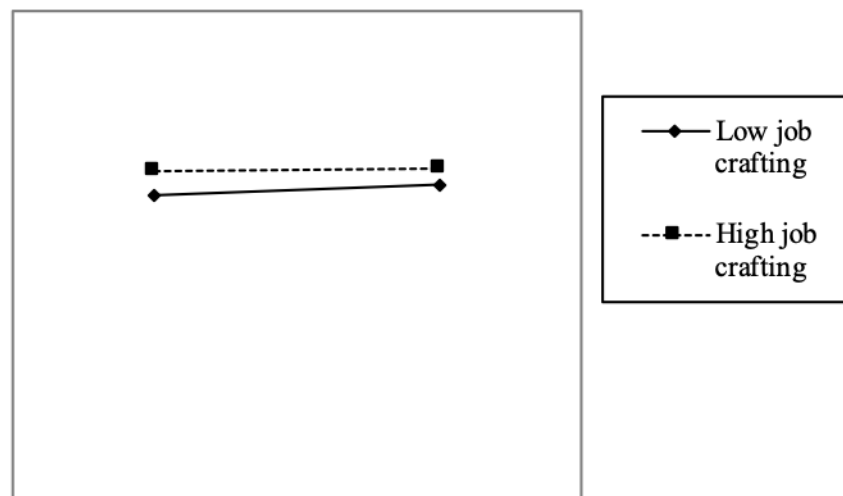


Figure 4.1 : The interactive effect of work intensification and job crafting on work engagement

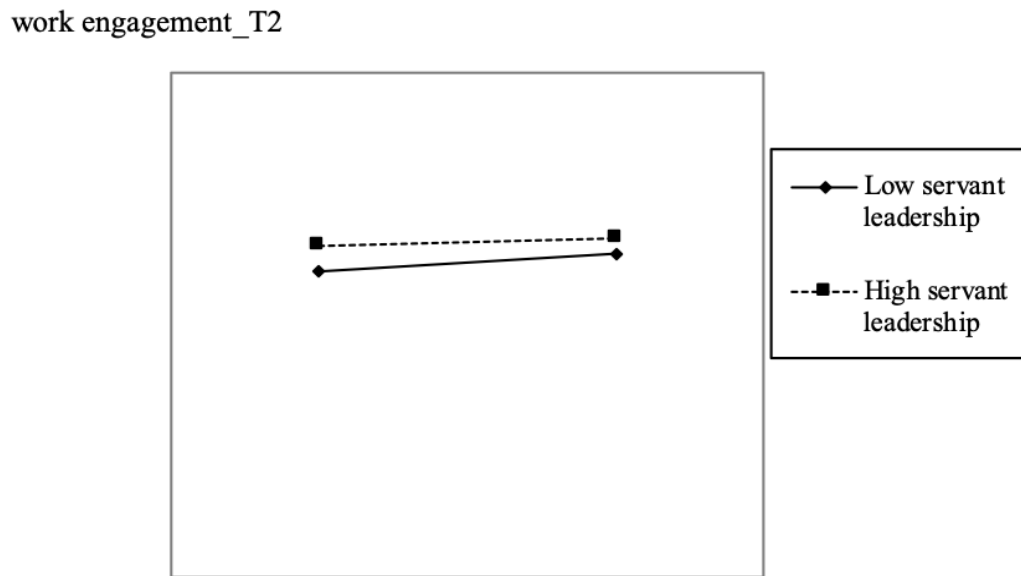


Figure 4.2 : The interactive effect of work intensification and servant leadership on work engagement

#### 4.4.7 Cross-Level Effect

Hypothesis 7 proposes the effect of team level work intensification on individual level work engagement is mediated by individual level work intensification. We tested the cross-level effect using MPlus (Muthén and Muthén, 2012). Team work intensification was aggregated with employee-reported data due to adequate within group agreeableness and between group variance ( $rwg = 0.85$ ;  $ICC(1) = 0.06$ ;  $ICC(2) = 0.26$ ). We specified a 2-1-1 (MLM) model, which reflects the team-level nature of the independent variable (*i.e.* team-level work intensification) and the individual-level nature of the mediator (*i.e.* individual-level work intensification) and the dependent variable (*i.e.*, individual level work engagement). Random coefficient analyses (Snijders and Bosker, 1999), and the robust maximum likelihood estimator were used to test the



hypotheses. As shown in Mplus output, a within-level positive association was found between individual level work intensification and individual work engagement ( $b = 0.17$ ,  $SE = 0.06$ , 95%  $CI = [0.07, 0.26]$ , not including zero). A between-level positive effect was found between team level work intensification and individual level work intensification ( $b = 0.82$ ,  $SE = 0.06$ , 95%  $CI = [0.73, 0.91]$ , not including zero). The cross-level effect between team level work intensification and individual level work engagement was not significant with individual intensification ( $b = -0.09$ ,  $SE = 0.10$ , 95%  $CI = [-0.25, 0.06]$ , including zero). The indirect effect of team level work intensification on individual level work engagement via individual level work intensification was significant ( $b = 0.14$ ,  $SE = 0.05$ , 95%  $CI = [0.06, 0.21]$ , not including zero). Thus, hypothesis 7 was supported. Table 4.15 shows a summary of hypotheses testing results.

*Table 4.15: Results summary of hypotheses testing*

Hypotheses Statement	Results
<b>Hypothesis 1:</b> Individual level work intensification will be negatively related to individual level work engagement.	Not supported
<b>Hypothesis 2:</b> Individual level work engagement will be positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being.	Supported
<b>Hypothesis 3:</b> Individual level work engagement will mediate the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health &	Supported

well-being.

**Hypothesis 4:** Individual level *Guanxi* will moderate the negative relationship between individual level work intensification and work engagement. Not supported

**Hypothesis 5:** Individual level job crafting will moderate the relationship between individual level work intensification and work engagement. Supported

**Hypothesis 6:** Individual perceived servant leadership will moderate the relationship between individual level work intensification and work engagement. Supported

**Hypothesis 7:** The effect of team level work intensification on individual level work engagement is mediated by individual level work intensification. Supported

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## 4.5 Summary

This chapter has reported and summarized the data analysis procedures and results. It first reported the mean value, standard deviation, and bi-variate correlations of variables measured empirically. It was found that all the focal variables, including work intensification, work engagement, and performance variables (*e.g.* task performance, job satisfaction, and health and wellbeing) were significantly correlated. It further tested the hypotheses proposed to answer the research questions of this thesis. Most of the hypotheses were supported by empirical evidence. Two hypotheses were not supported. Specifically, and unexpectedly, individual work intensification was positively related to individual work engagement. Individual *Guanxi* with a

supervisor did not moderate the relationship between individual work intensification and work engagement. The next chapter will discuss the results of data analysis.

## CHAPTER V: DISCUSSION

### 5.1 Introduction

This study generated five research questions: (1) How does individual/team work intensification and employee outcomes (*e.g.* task performance, job satisfaction, and health & wellbeing) relate to individual work engagement? (2) How does the level of individual *Guanxi* affect the linkage between work intensification and individual work engagement? (3) How does an individual's job crafting affect the linkage between individual work intensification and work engagement? (4) How does servant leadership influence the relationship between individual work intensification and work engagement? (5) How does team work intensification relate to individual work intensification and work engagement?

To answer these five research questions this research further developed 7 hypotheses about the relationship among team and individual work intensification, employee work engagement, and employee outcomes indicators including task performance, job satisfaction, and health and wellbeing. Moreover, the hypotheses about the moderating effects of an employee's *Guanxi* with their supervisor, job crafting, and servant leadership were also proposed. Our previous chapter presented the data analysis results, including descriptive analysis, and explored the interrelationships between team work intensification, individual work intensification, individual work engagement, and performance including task performance, job satisfaction, and health and wellbeing. The chapter also discusses the theoretical and practical implications of the research findings.

Just two out of seven hypotheses were not supported. Unexpectedly, the relationship between individual work intensification and work engagement was positive, while the moderating effect

of *Guanxi* was not significant. The remaining five proposed relationships were supported by empirical evidence: specifically: (1) Individual level work engagement was positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being; (2) Individual level work engagement mediated the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being; (3) Individual level job crafting moderated the relationship between individual level work intensification and work engagement; (4) Individual perceived servant leadership moderated the relationship between individual level work intensification and work engagement; (5) The effect of team level work intensification on individual level work engagement was mediated by individual level work intensification.

It discusses the unexpected finding about the positive relationship between work intensification and work engagement, and, further, the theoretical implications as to the central role of work engagement in channelling the effects of the intensified work from both team and individual level onto employee outcomes. Next, the role of moderators is discussed, followed by practical implications for both managers and employees in the context of work intensification.

## **5.2 Theoretical Implications**

### ***5.2.1 The Validity of Construct measurement***

The constructs employed to build the conceptual model (see figure 2.1) of this research are mature constructs with scales in the literature. These constructs include individual work intensification, individual work engagement, individual performance, employee's job crafting, *Guanxi* with supervisor, and perceived servant leadership. These constructs have validity and

reliability above the acceptable level (see tables 4.3 to 4.11). Apart from *Guanxi*, all the constructs are developed in the Western context. The good validities and reliabilities of the constructs reflect that these constructs/concepts are transferable, applicable and even salient in the Chinese workplace, and as such can be robustly and reliably measured using globally mature scales within Chinese manufacturing research settings. This not only reassuringly confirms the validity of this study's research design, but also indicates the generalizability of these academic constructs/concepts. *Guanxi* is a concept that derives from Chinese societal context; the validity and reliability of this construct, and its successful measurement, alongside previously accepted Western criteria, strongly suggests that this concept remains a salient factor in the 21<sup>st</sup>-century Chinese workplace, even after almost 40 years development of marketization.

Moreover, at team level, team work intensification was measured using the aggregation of the individual work intensification of team members. All the indicators for processing aggregation exceed the conventional statistical thresholds: that is to say, team work intensification can technically be measured as the aggregation of team members' individual work intensification. Conceptually, it has been suggested that, according to Liao *et al.* (2009, p. 274), 'employees may perceive or experience differences in exposure to work practices' (see also Liu *et al.*, 2013). 'Messages are embedded in HR content ... or in the way HR practices are implemented ... In this line of reasoning, employee HR perceptions encapsulate the messages employees ... receive from their employers by observing or experiencing HR practices' (Wang *et al.*, 2020, p. 142). Wang *et al.*'s (2020) literature review further revealed that the experience-based, rather than observation-based or description-based measurement of work practices shows a stronger relationship with employee outcomes. Therefore, unlike most studies in the literature that use team leader-rated evidence (*e.g.* Kubicek *et al.*, 2012), this research used

the perception of team members themselves about work intensification, and aggregated the perceptions to reflect team-level work intensification. This treatment can further enhance the predictability of team-level work intensification.

### ***5.2.2 Employee Work Intensification and Engagement***

Hypothesis 1 states that ‘*Individual level work intensification will be negatively related to individual level work engagement*’. It is therefore unexpected that the empirical evidence does not support this hypothesis; according to our results, the relationship is positive. However, this unexpected result is presumably and provably genuine, and must at least be plausible rather than an aberration. From a JD-R model perspective, previous studies have reported both positive and negative empirical evidence concerned with the relationship between job demand and employee outcomes, suggesting that the direction of the influence of job demand on employee outcomes depends on contextual factors. In this resource, from a JD-R model, work intensification be experienced or perceived by employees as either positively challenging or a hindrance (Demerouti, 2001; Schaufeli, 2003). From a social exchange perspective, it is the resources that can meet employees’ needs that can induce the expected motivations and behavior (*e.g.* Gong *et al.*, 2010). Moreover, in a ready simplification of Maslow’s classic hierarchy, employees’ human needs can be categorized into two tiers as higher- and lower-order needs: the former includes such needs as prestige, personal/career advancement, skill mastery, *etc.*, while the latter contains such fundamental essentials as safety and security. In this case, whether work intensification is perceived as a challenge or a hindrance depends on employees’ dominant needs in context. The researched organizations in this study are 3 manufacturing companies in the optoelectronics industry, whose employees are well educated and trained, meaning their lower-order needs such

as potential job security are already satisfied. This phenomenon is further strengthened by the accelerating shortage of skilled labor in the Chinese market. Therefore, from a JD-R model, the job demands are more likely to be perceived as challenging resources. Such challenging resources are associated with higher-order social factors like recognition and self-image. Work engagement was considered as an energetic state of involvement that is different from burnout (Maslach and Leiter 1997); his state is associated with higher- rather than lower-order needs of employees. Based on the rationales of social exchange and equity, employees are likely to reciprocate with higher-order efforts, like work engagement.

The positive effect of work intensification further contributes to the literature by updating empirical evidence about job demands and employee outcomes among Chinese manufacturing employees. These employees might have upgraded their primary needs in line with contemporary economic and social advancement in China more generally. In addition, although implicitly, it is further suggested that the principles of the JD-R model should be applied, but not without awareness of individuals' holistic concerns in context, or at very least their primary needs.

### ***5.2.3 The Role of Work Engagement in The Relationship Between Individual Work Intensification and Performance***

Hypothesis 2 proposed that 'individual level work engagement will be positively related to individual level (a) task performance, (b) job satisfaction, and (c) health & well-being'. The empirical findings supported all the sub-hypotheses, as is consistent with previous studies conducted in different cultures. It is noteworthy that the magnitude of the effect of work engagement on task performance, job satisfaction, and health and wellbeing is significant in each



case, with  $b$  value ranges from 0.32 to 0.62. These results can generate two implications. On the one hand, the scale of effect between work engagement and task performance is the greatest, which firmly consolidates the significance of work engagement in improving task performance. On the other hand, work engagement's positive role in HRM is also shown in that it improves task performance with no cost to employees' psychological and physical conditions.

Hypothesis 3 proposed that 'Individual level work engagement will mediate the relationship between individual level work intensification and (a) individual level task performance, (b) job satisfaction, (c) health & well-being'. The findings of this research also supported all the sub-hypotheses. At first glance, the indirect effects are not strong, with effect size ranging from 0.04 to 0.09: results which might be interpreted as weak, hence indicating a weak mediation role of work engagement. However, closer scrutiny reveals that the effect size of the direct influence of work intensification on work engagement was not big ( $b=0.14$ ). Most of work intensification's effects were mediated by work engagement onto performance variables. These findings further stress the importance of work engagement as a central channel in facilitating the effects of management practices, especially in regard to the current trend of work intensification.

#### ***5.2.4 The Effects of Employee's Guanxi with Supervisor in The Relationship Between Individual Work Intensification and Work Engagement***

Hypothesis 4 proposed that 'Individual level *Guanxi* will moderate the negative relationship between individual level work intensification and work engagement'. Unfortunately, the moderating effect of a typical employee's *Guanxi* with their supervisor is not statistically significant. In a Confucian society, exemplified by established Chinese tradition, *Guanxi* is deemed as the pivotal social resource on which one's personal and career advancement are built.

However, fresh evidence in the current research deserves discussion. First, it is unexpected that *Guanxi*, rooted in the wider national culture, did not adjust how employees were impacted by management practices. This might be attributed to the progress of the adoption and deepening of marketization, and the so-called modern enterprise management model. Secondly, however, according to the findings, *Guanxi*, as aforementioned, is still a salient concept with detectable influence in the Chinese workplace. It can be seen in model 5 at table 3.15 that an employee's *Guanxi* with their supervisor did indeed positively impact work engagement, with a not small effect size ( $b=0.13$ ). This finding suggests that *Guanxi* with an employee's supervisor might still be at least a significant antecedent to work engagement. Such findings may echo job crafting theory, where *Guanxi* with a supervisor manifests through a series of proactive behaviors that can create better work conditions.

#### ***5.2.5 The Effects of Job Crafting in The Relationship Between Individual Work Intensification and Work Engagement***

Hypothesis 5 states that 'Individual level job crafting will moderate the relationship between individual level work intensification and work engagement'. The result of data analysis supported the hypothesis: a finding consistent with the JD-R model, and which needs to be interpreted together with those for Hypothesis 1. As discussed earlier, in this research, work intensification is likely to be considered as a challenging resource associated with higher-order needs by modern Chinese manufacturing workers. Hence, workers respond to organizational encouragement or incentives by shifting into a higher-order work-related state, namely, work engagement. Job crafting is concerned with proactive behaviors that increase job resources and decrease hindering job demands. That said, when performing job crafting, employees are likely

to receive more job resources and less hindering demands when working intensively, because employees try to use better ways of working and build up their skills and resilience.

More importantly, as a proactive behavior, job crafting can facilitate the generation of the higher-order resources on the one hand, while building up employees' own higher-order pursuits or needs. Although no specific hypothesis was proposed on this, it can be seen in model 6 at table 3.15 that job crafting directly impacts work engagement, even after entering the interactive term of work intensification and job crafting. This implies that job crafting as a series of crucial proactive work behaviors can not only adjust how management practices, *i.e.* work intensification, impact an employee's energetic state, but also serve as an antecedent or trigger to the worker's heightened energetic state.

#### ***5.2.6 The Effects of Servant Leadership in The Relationship Between Individual Work Intensification and Work Engagement***

Hypothesis 6 states that 'Individual perceived servant leadership will moderate the relationship between individual level work intensification and work engagement'. The data analysis result supported this hypothesis. Servant leadership is measured using the perceptions of team members of their supervisor's behaviors, including being responsible for work quality, talent management, supporting team members, taking social responsibilities, giving team members freedom of making decisions and discretions, and upholding workplace ethics. This finding is also aligned with the JD-R model and needed to be interpreted together with hypothesis 1. Servant leadership can serve as facilitating work practices in offering higher-order social resources and reducing the possibility of offering lower-order social resources. When working intensively, employees are likely to generate higher-order needs such as those for skill

mastery, discretion, and career advancement. Through talent management, decision freedom, and employee support that are offered by servant leadership, employees can gain more resources from the intensified work that meet their higher-order needs.

In addition, while no hypothesis was proposed as to the direct effects of servant leadership, it showed in model 5 at table 3.15 that servant leadership positively impacts work engagement, after the interactive term of individual work intensification and servant leadership was entered in the regression. That means servant leadership, as perceived by employees, can also serve as a creator of challenging resources and eliminator of hindrance resources.

### ***5.2.7 Comparing the Roles of Guanxi, Job Crafting, and Servant Leadership***

The moderation effects were investigated under the JD-R model theoretical framework. The three moderators - *Guanxi*, job crafting, and servant leadership - are rooted in different facets and at different levels of the workplace environment. *Guanxi* is a societal concept born in Confucian culture and institutionalized as a behavior standard in the Chinese context. Job crafting refers to a series of proactive behaviors creating job resources and reducing hindering job demands. Servant leadership is a structural variable that directly impacts employees' work and how they receive and reciprocate resources with employers. All these three factors have been reported as valid interventional variables adjusting the effects of work practices on employee outcomes. However, the findings of this research revealed some interesting points.

First, the conventionally salient factor, *Guanxi*, with strong cultural and institutional roots in the Chinese workplace, did not adjust the relationship between employee work intensification and work engagement. On the contrary, the other two potential moderators, job crafting and servant leadership, which were developed in Western context, were found to significantly

moderate the positive linkage between employee work intensification and work engagement. The pattern of the moderating effects reflects the weakening of the conventional cultural and institutional factor, *Guanxi*, and the strengthening of modern behavioral and structural factors, job crafting and servant leadership in intervening relationship between management practices and employee outcomes.

Second, all the three proposed moderators, according to results in model 5 at table 3.15 were found to directly and positively impact employee work engagement, after the interactive terms of the moderators and work intensification were entered to analysis respectively. Each of them could be the antecedents to employee work engagement in the context of work intensification.

Lastly, *Guanxi*, as a code of behaviors building up relationships with supervisors that are less directly related to work itself, is a source of work engagement rather than an intervening factor changing the effects of management practices on work engagement. This finding could further reveal a clearer boundary between work-related and personal factors in impacting employee outcomes.

#### ***5.2.8 The Cross-Level Mechanism of Work Intensification and Work Engagement***

Hypothesis 7 stated that “The effect of team level work intensification on individual level work engagement is mediated by individual level work intensification’. The data analysis results support the 2-1-1 cross-level mediation mechanism. The findings can generate theoretical implications. First, team work intensification was measured in connection with the aggregation of team members’ individual perception of work intensification. Work intensification, as a type of human resource management practice, is designed at collective level, implemented by line managers, and experienced by employees. Team-level management practices have been usually

measured by team leader(s) as these are the managerial staffs who apply these practices with the team. However, any team is also a social organization in which team members are embedded. The social aspect of team structure might be more significantly related to employees' psychological (*i.e.* perception of work intensification) and behavioral processes (mechanism between work engagement and employee outcomes). This research deviates from previous studies by measuring team work intensification with the aggregation of team members' perception of work intensification at the individual level. Such aggregation is different from team leader-rated management practices. The former is the shared perception or understanding about the extent to which work has been intensified among members in a team, while the latter is the implemented management practices based on the firm's arrangements and the manager's intentions. It is obvious that the shared perceptions of management practices among team members are more strongly related to employees' outcomes.

Second, this research also found that team level work intensification impacts upon work engagement via the mediation of team members' perceived work intensification. This finding further stressed the role of team members' shared perception of work intensification, namely, team work intensification, in affecting employees' energetic state, namely, work engagement. Theoretically, it supports the principle that work engagement derives from the intensified work at team level, which triggers team members' individual work intensification.

Lastly, the intensified work at individual level leads to work engagement. Given that work engagement is a crucial variable in work organization that is linked to many positive work outcomes, it is appropriate and necessary to explore and investigate the antecedents to, and mechanisms resulting in, work engagement. The cross-level mediation effects serve to enrich the understanding about how to stimulate employee work engagement.

### 5.3 Summary

The primary aim of this research was to investigate further and broaden the understanding of the factors that impact work intensification, to predict work engagement and performance in Chinese manufacturing. Along with the primary aim, there are three important aspects, that is, a) the interventive effect of social context on work intensification practices and employee outcomes, b) the adoption level of work intensification practices and impacts on employee engagement and job outcomes, and c) the possible implications of servant leadership practices and employee job crafting on work intensification and employees' outcomes of employee outcomes.

To answer research question 1: 'How does individual/team work intensification and employee outcomes (*e.g.* task performance, job satisfaction, and health & wellbeing) relate to individual work engagement?', the thesis proposed and tested the direct relationship between individual work intensification and work engagement, as well as the indirect relationship between individual work intensification and employee's task performance, job satisfaction, and health and wellbeing. The results answered the question by finding positive direct and indirect relationships among individual work intensification, work engagement, and performance indicators. To answer research question 2-4: 'How does the level of individual *Guanxi*, job crafting, and servant leadership affect the linkage between work intensification and individual work engagement?', the thesis proposed and tested moderating effects of *Guanxi*, job crafting, and servant leadership on the relationship between individual work intensification and work engagement. It was found that two of the three variables strengthened the impacts of individual work intensification on work engagement. Last, the thesis also attempts to answer research question 5: 'How does team work intensification relate to individual work intensification and

work engagement?’. The thesis proposed and tested the cross-level effects of team work intensification on individual work intensification. Team work intensification was found to have positively impacted individual work intensification, which in turn positively influenced work engagement.

As a founder and senior manager at a manufacturing enterprise, the present researcher has himself been experiencing the intensification of work, and recognises the truth that intensive work can create pressures. However, in what way employees or managers cope with the increased workload would in turn differentiate their work outcomes and determine their rate of development rate in their career. Some hold positive attitudes and proactively seek opportunities to learn and make change, while the others keep complaining and feel out of control and pushed around by their work. The former can contribute to a bright workplace for themselves and others, while the latter seem as though buried under its burdens.



## CHAPTER VI: CONCLUSION

### 6.1 Introduction

The aim of this last chapter is to conclude the research in order to answer to what extent the thesis answers the primary aim of this research: ‘To investigate further, and broaden the understanding of, the factors that impact work intensification to predict work engagement and performance in Chinese manufacturing’. In this chapter, the author first concludes the theoretical contributions: (1) to see work intensification as a challenging source rather than demanding source; (2) to recognize the multi-level nature of work intensification and its cross-level effects on workers’ psychological status and work outcomes; (3) to suggest principles for managing the interplay between work intensification and employee outcomes, both generally and for individuals within a manager’s team. Specifically, the author stresses the roles of employees’ job crafting and servant leadership, as well as the changed role of *Guanxi*.

Second, the author concludes this empirical contribution by pointing out the uniqueness and value of the empirical evidence of this research. On the one hand, the empirical evidence offers a snapshot of the status of work and people in contemporary Chinese manufacturing industry, namely, well-educated employees faced with intensified work; on the other, the empirical evidence reflects a probably unique circumstantial overlap between a world-wide crisis and the general longer-term trend of work intensification in China.

Third, the methodological contributions are presented. These contributions include the reduction of the possible common method bias, the emphasis on employees’ perception of work and leaders, and the measures by which the multi-level nature of work intensification is measured and examined.

Fourth, practical contributions are concluded by stressing the importance of recognizing work intensification, promoting work engagement, updating the understanding of *Guanxi* with supervisors, stimulating job crafting at work, and acting as a supporter and servant for employees. The author also concludes these practical contributions based on his own experiences as a founder and senior manager of a manufacturing enterprise in China.

Fifth, the limitations of the research are explained. (1) The use of a single dimension of work intensification might overlook some complexity of structure and effects of work intensification. (2) Using data collected at only two time points to examine any mediation relationship, might reduce the robustness of findings about such a causal or indirect relationship. (3) The plausible explanation about the unexpected positive effects on work engagement of work intensification needs to be tested empirically in other future research.

Sixth, future research is suggested to (1) further reveal the complexity of the interplay between the influences of multiple facets and mechanisms of work intensification; (2) explore the mediation effects of other employee-related variables, such as emotions, mental mode, and abilities; (3) explore and test why, how, and when the changes impacting management practices influences; and (4) investigate any changes in the effects of such variables as *Guanxi* or *Zhongyong*.

Lastly, the author summarizes the chapter.

## **6.2 Theoretical Contributions**

6.2.1 Work Intensification as A Source of Positive Work Outcomes. This research identified and reported a counter-intuitive finding about the effects of work intensification on employee work engagement: it was unexpected that work intensification improved employee work engagement. This research finding contributes to HRM literature by enriching our understanding of work

intensification. This research reported the bright side of work intensification, which has been long characterized as source of negative employee outcomes, such as employee stress, drain, and burnout. Specifically, work intensification is a general trend as a part of the wide utilization of high-involvement work systems (HIWS). From the JD-R model's perspective, it is easy to understand that intensified work, namely, completing more tasks in less or limited time, generates demands. However, according to job crafting theory, job demands can be either challenging or hindering. This dualistic logic of challenging *vs.* hindering job demands establishes the foundation for exploring work intensification's positive effects on employee outcomes. Such positive effects would be more marked in specific contexts, where the primary needs of employees are higher-order and the workers' employability is enhanced. As mentioned earlier, with high-school and college education coverage having expanded in China, the better-educated employees would have higher career expectations. Employers are finding it increasingly hard to recruit qualified workers with low compensation and rewards. The upgrade of labour quality, and better compensation and rewards, together are likely to motivate employees to put in more efforts at their workplace.

Moreover, there is another plausible explanation about the unexpected positive effects of work intensification on work engagement. When modelling relationships between variables in management research, there is a generic principle that may occur across contexts: 'The Too-Much-of-a-Good-Thing Effect', meaning 'ordinarily beneficial antecedents causing harm when taken too far' (Pierce and Aguinis, 2013, p. 314). According to this principle, statistically, work intensification's effects should be decreasingly positive when work intensification grows from zero to intermediate level, while becoming increasingly negative when work intensification exceeds the reflection point and increases further. In other words, the relationship between work

intensification and work engagement could be sketched in an inverted-U configuration. However, the empirical investigation was conducted after the occurrence of the COVID-19 pandemic, which saw a sharp and sudden decline in the global economy and a shrinking of consumer demand. Based on the experiences of the author of this thesis, his enterprise's volume of orders received during the pandemic dropped very significantly; the pandemic created a specific context, where the prior and steady intensification of work was relieved, in marked and unexpected contrast to the general trend of work intensification over recent decades in China. Therefore, the level of work intensification currently stands between zero and intermediate level. Thus, the relationship between work intensification and work engagement remains positive even in the pandemic context in China.

### ***6.2.2 Work Intensification as A Cross-Level Mechanism Impact Employee Outcomes***

This research contributes to the HRM literature by revealing the cascading effects of collective-level work intensification onto individual-level work intensification, then, onto employees' work state and performance. As a set of management practices, it can be either intended, implemented, or perceived. Intended work intensification occurs where management practices designed at organization level are used to encourage employees to do more tasks in limited time, while implemented work intensification refers to the extent to which managers apply work intensification directly at shopfloor level when managing employees. However, the effectiveness of work intensification, namely, to what extent does the implemented work intensification achieve the goal of organization when design the intended work intensification depends on employee's perceptions of the implemented work intensification. Moreover, at

collective level, the aggregation of individual-level perceptions, *i.e.*, a climate of work intensification, also impacts an individual's perception.

### ***6.2.3 The Boundary Conditions of Work Intensification's Relationship with Employee***

#### ***Outcomes***

Work engagement has been reported as an employee energetic state that is positive related to a number of performance-related variables, such as task performance, job satisfaction and organizational citizenship behavior (Chandni and Rahman, 2020). This research reinforced the positive role of work engagement among employees in the intensified work context of manufacturing companies in China. Engaged work employees are valuable human resources that generate superior performance without sacrifice of their own job satisfaction nor health and wellbeing. However, this research also stresses the effects of variables liable to moderate the influence of work intensification on workplace engagement. Put another way, moderators are crucial catalysts for the effectiveness of work intensification in promoting work engagement. Our findings about the positive moderating effects of job crafting and servant leadership contribute usefully to the literature of the JD-R model by enriching its principles with respect to job demands. Conventionally, job demands are believed to have detrimental effects on employees' emotion and energy. When integrating job crafting theory's logic about challenging *vs* hindering job demands, it enriches the JD-R model to capture not only the negative effects of job-hindering demands, but also the positive effect of job-challenging ones. Moreover, both servant leadership and employee's job crafting enlarged the positive impact of work intensification on work engagement. These findings together further support that the effects of job challenging demands can be generated by intensified work and strengthened by proactive behaviors of both leaders and employees.

*Guanxi* with a supervisor did not moderate the relationship between individual work intensification and work engagement. Although this is unexpected, it should attract attention among researchers keen to explore in timely fashion the (changed) role of Chinese societal factors in the management context. *Guanxi* has long been recognised as a pivotal factor determining decision-making and other behaviors of Chinese people within and beyond their workplace. Other factors in the particular Chinese management context might already have, or, in the course of imminent time at a period of unprecedented change, assume, substitutive effects on *Guanxi*. Such change could be an outcome of the westernization of management style in Chinese enterprises and the globalized mindset and expectations of 21<sup>st</sup>-century citizens.

### **6.3 Empirical Contribution**

This research also contributes to the literature by reporting new empirical evidence. On the one hand, the empirical evidence surrounds and illumines key phenomena, *e.g.* intensified work and people's engagement at work, in manufacturing enterprises in China. The accumulation of such empirical evidence is important because of the unique context of China's transitional economy, where the development of manufacturing industry is a life-or-death prerequisite for China's economic development and transition. Without strong manufacturing enterprises, China can hardly maintain its brand of 'made in China', let alone 'created in China'. The quality of employees in manufacturing industry has also evolved in terms of education and status in the labor market: namely, while better educated, as yet they are rarer to find. Thus, the empirical evidence collected in this research offers a snapshot of the status of work and people in contemporary Chinese manufacturing industry in the early 2020s, COVID or no.

On the other hand, the empirical evidence does also capture the status of work and people in the specific context of a pandemic, which has spontaneously disrupted a general trend of work

intensification. This empirical data is valuable because it reflects an overlap between a global crisis and the general trend of work intensification in China. Thus, it is likely to demonstrate some unique, perhaps disrupted and at least temporarily unrepresentative, patterns in the relationships between key conventional variables in management context. Such evidence deserves scholarly attention as generating potential implications for the future, as the world might experience other crises of broadly comparable magnitude, although the author hopes the world will else roll on with general peace and happiness.

#### **6.4 Methodological Contributions**

The research can also make methodological contributions. First, to reduce the possibility of common method bias, this research adopted used multiple sources when collecting empirical data. Specifically, work intensification and engagement, job crafting, servant leadership, and *Guanxi* were rated by employees/team members, while employee's performance, including task performance, job satisfaction, and health and wellbeing were rated by supervisors/team leaders. Second, to stress the role of employees' experiences of management practices and organizational structure in predicting their psychological status and performance, the research measured servant leadership and *Guanxi* with the supervisor/team leader from the perspective of the employee/team member's perception, rather than solely or deferentially 'top-down'. Lastly, when examining the cross-level effects of team work intensification on individual work intensification, this research stressed employees' collective perceptions about the whole team's work intensification by using a referent-shift approach. Then, the research aggregated individuals' evaluations to form the team-level work intensification. Overall, the methodological considerations in this thesis are to enhance the robustness of the empirical findings and validity of the theoretical contributions.

## **6.5 Practical Contribution**

The research findings of this study generate several practical implications which can be useful for both managers and employees.

### ***6.5.1 Work Intensification***

Recognizing the key management phenomena in manufacturing company workplaces, work intensification as a set of HRM practices is a general trend in Chinese manufacturing industry. Intensification of work should be used as a managerial tool to generate job resources rather than hindering job demands. Nowadays, most Chinese manufacturing workers experience good education and training, which improves their employability. Moreover, due to the problem of the aging population and the side-effect of the population growth control, Chinese manufacturing companies are experiencing a shortage of labor supply. In such circumstances, management practices should not be focused solely on improving productivity: rather, they should be used as an inducement to employee outcomes associated with higher-order pursuits. Employees are likely to reciprocate by generating proactive states, such as work engagement. If an intensified work program is designed and used primarily to improve productivity, managers might find little utility in management practices, whose sole focus on productivity offers resources only related to lower-order social resources, which no longer correspond to the needs - at least, not the primary needs - of manufacturing employees in early 21<sup>st</sup>-century China.

Based on the experiences of the author of this thesis, today's work in Chinese manufacturing industry has been substantially intensified. Managers must balance the intensified work and the shrinkage of supply in the relevant labor market. When managing employees, the author found that today's employees, unlike those in manufacturing a decade ago, expect both better payment and opportunities for career advancement. Intensified work opportunities could be willingly



taken and fulfilled by such employees, but employers have to offer both material and social resources for them.

### ***6.5.2 Work Engagement***

Work engagement can be effective as the central channel via which work intensification impacts employees' attitude, health and wellbeing, and on-task performance. A plethora of studies have reported that work engagement generates multiple work outcomes expected by an employer. It is advised that employer and managers could use multiple ways to improve employees' engagement: for example, employers and managers could recruit and select workers whose personality fits the post, rather than focusing narrowly on functional skills and ability. In addition, commitment-oriented management systems, such as high-commitment work systems, could be used to cultivate employees for long-term return.

From a practitioner's perspective, the author has noticed that engaged workers attract an employer's attention because they have better performance at work. It is usually the case that engaged workers with good performance can receive positive feedback from employers, hence experiencing more enjoyable psychological status and becoming increasingly confident and even ambitious as to their career development. However, to achieve advancement in a career needs time and consistent longterm effort. For example, to be promoted from front-line worker to supervisor, an employee usually needs to rotate among component posts within their team, which typically takes at least three years. In this process, employers and managers must keep the employees with potential informed that they are being cultivated; but of course, within an upwardly tapering hierarchical organizational structure, a majority of the employees cannot achieve such promotion.

### 6.5.3 *Guanxi* with Supervisor

Developing *Guanxi* is deemed as a pivotal behavioral standard in the Chinese workplace. *Guanxi*, deriving from Confucian culture, has been understood as a culture-specific phenomenon that changes the way in which management practices impact workers' psychology and behaviors. However, ever since early 1980s, China has striven to develop a socialist market economy: over the last 40 years, Western management practices have been increasingly adopted at company level to improve effectiveness and efficiency of management. In the present-day work context, an employee's *Guanxi* with their supervisor has changed from adjusting the effectiveness of management practices to institutionalized behaviors that impact the employee's psychology and work outcomes. Therefore, both managers and employees need to redefine the role of *Guanxi*, which should now be considered as a source of employee outcomes rather than a cultural factor modulating the effectiveness of management practices. Thus, managers and employees should encourage and welcome a good *Guanxi* to achieve a stronger work motivation on the one hand; at the same time, they should focus on improving the quality of management through more scientific and globally recognized models of management designing, and avoid relying on traditional *Guanxi* to improve the efficacy of management practices.

The author found that *Guanxi* is still useful, but only at the recruitment stage. A candidate who has personal relationships with people inside the enterprise stands a better chance of being employed. However, as the manufacturing processes are highly standardized and assisted by new technologies, any room for manoeuvre, where traditional *Guanxi* with a supervisor potentially made a transformative difference to an employee's career, is getting smaller and smaller. A good *Guanxi* between a supervisor and their co-workers is still far from useless: rather, *Guanxi* makes

for good team commitment and good relations within a team, which can further facilitate cooperation and collaborations. That is to say, *Guanxi* is not crucial for the results/performance of employees, but for the improvement of the processing of work.

#### **6.5.4 Job Crafting**

When facing the demands of doing more tasks in a certain period, employees can receive either useful social resources or hindering demands. The former include social resources such as opportunities for self-improvement, career advancement, or recognition, while the latter involve hindrances like stress, strain or burnout. Which of these results in any individual case, depends on the strategy that employees use to cope with the intensification of work. A proactive coping strategy for employees is advisable, because by using this strategy employees at a workplace can increase useful job resources for career advancement and reduce hindering demands that induce stress and burnout. This proactive coping strategy is made up by a set of mutual complemented proactive behaviors to i) increase structural job resources, ii) decrease hindering job demands, iii) increase social job resources, and iv) increase positively challenging job demands.

First, the effective measures to increase structural job resources involve continuance learning and development of new skills and abilities, self-advancement in specific professions, and the strengthening of discretion at work. Second, in terms of decreasing hindering job demands, employees should avail themselves of any opportunity to train in self-management of mood and emotions, minimize non-work-related interruptions, arrange their workflow to avoid difficult decisions and make a smart plan to fulfil the tasks with minimal awkwardness. Third, to increase social job resources, employees need to strive to develop contacts with supervisors and co-workers to receive feedback, advice and/or coaching. Last, employees can increase

challenging job demands by proactively seeking to join interesting or innovative projects, learning and implementing new techniques developed at workplace, doing extra work for the good of the company or subgroup, and achieving a better understanding of the linkages between aspects of his/her job.

The author and his partners, as founders and managers of manufacturing enterprises, share some experiences in common, which may seem a political point but is nonetheless a factual truth. If managers give employees more repeated work, the employees will become tired, less motivated, and even stressed in the workplace. On the contrary, employees requested to solve problems or experience multiple tasks are deemed more energetic and hold a positive attitude to the increased workload. Thus, the responsible design of employees' workflow is a key determinant for their performance and even career development.

### ***6.5.5 Servant Leadership***

In the context of work intensification, managers should also work on improving employee's effectiveness at work, motivation, and health and wellbeing, besides 'merely' pursuing productivity. This research suggests managers should adopt a servant leadership style. The servant leadership can improve the effectiveness of intensified work in inducing employees' engagement, hence leading to better task performance, job satisfaction, and health and wellbeing. The reasons are two-fold: on the one hand, servant leadership can help employees in creating social, structural, and appropriately challenging resources. Specifically, servant leadership helps employees to develop higher-order needs: for example, managers can encourage employees to obey ethical principles within the organization or indeed more widely, and recognize the importance of giving back to the community. A manager should also give priority to employees' career development and put employees' best interests ahead of his/her own. On the other hand,

managers performing a servant leadership role can help employees to avoid receiving hindering job demands. Specifically, managers can tell employees if something work-related is going wrong and help them if they have personal problems.

The author and other managers have noticed at work that employees know little about the right methods to achieve progresses in their career, despite their enhanced education background and expectations. It is the managers who can support employees in focusing appropriately in the workplace. This is because most of the managers used to be front-line workers themselves and have more tactical knowledge learned on the job, even if circumstances have changed since their own days in that same role. Apart from designing good work for employees, managers' support and guidance are also very valuable resources for employees to make right choices and behave in keeping. Only those managers or team leaders who really care about their team members can construct a high-performance team; in this case, if front-line managers are themselves focused more on the pursuit of ever higher managerial posts, they still have to be able to motivate team members, and a smart and right way is to support and even serve them.

## **6.6 Limitations of the Study**

Although this study contributes to both theory and practice, the findings must be interpreted with caution for several reasons. First, this research focused on a single dimension of work intensification, namely intensity, rather than multiple dimensions, such as intensity in conjunction with time dimensions. Focusing on a single intensity dimension can help to gain a deeper understanding about that dimension's effects. Indeed, the research findings revealed unexpected positive effects of work intensification on work engagement between management and manufacturing employees in today's China. However, analysis with reference to a time dimension might reveal some effects that are more complicated and can further deepen our

understanding about the influencing mechanism on work intensification as a multi-facet construct. Second, this research used the data collection at two time points: work intensification and work engagement were assessed by team members at time point 1, and employee task performance, job satisfaction, and wellbeing were evaluated by team leaders at time point 2. This time-lagged research design effectively reduced the possibility of common method bias. However, the mediation effects of team members' individual work intensification between team work intensification and team member work engagement, were tested. These three variables were measured at a single time point by a single assessor. This might contribute to common method bias. Lastly, by investigating the employees' behavioral process enacted by multi-level work intensification, this research found employee work engagement as a pivotal mediator that channelled the positive effects of work intensification on employee outcomes. The finding of the positive effects of work intensification was unexpected but plausible; we attributed this counter-intuitive to the specific context of the research setting, including the changed primary needs of employees and the shortage of labor supply in today's China. Such articulation, though not empirically tested, nonetheless stands as a plausible explanation.

## **6.7 Future Research Agenda**

Based on the above acknowledged limitations of this research, several suggestions are offered for future research. First, intensification is a multi-dimensional construct. There might be interactions between dimensions, and future research is suggested to explore and examine the interactions among different dimensions in impacting employee and work outcomes. To do this, research can further reveal the complex interactions and influences of the multiple facets of the mechanism of work intensification. Second, in this research, it was found that work intensification influenced employees' task performance, job satisfaction, and health and

wellbeing via their work engagement. Consistent with previous research findings, work engagement mediated the influences of work intensification on the multiple employee outcomes. Future research efforts could explore the mediation effects of other employee-related variables, such as emotions, mental mode, and abilities. Third, it is suggested that future research should use multi-wave research design with each (set) of the variable along the mediation mechanism measure at a different point of time. Such multi-wave research design can further enhance the power of capturing step-based causal effects. Fourth, in developing economies like China, both quality and structure of population are undergoing great changes, resulting in an altered pattern of employees' primary needs/pursuits. Such changes might in turn alter the effects of management practices, *e.g.* work intensification in the case of this study. Future research is suggested to explore and test why, how, and when the changes impacting management practices influences. Specifically, besides the moderators employed in this research, labor market conditions, characteristics of employees as individuals or groups, the states or changes of technology, and so on, are all suggested to be incorporated into analysis of the effectiveness of management practices. Last, among the moderators in the research model of this study, employees' *Guanxi* with their supervisor is deemed as a cultural/societal factor, which can adjust the employees' coping strategy when faced with changes in management practice. However, according to the finding of this research, employees' *Guanxi* with their supervisor did not moderate the relationship between management practices, *i.e.*, the employee's work intensification, and their working state, *i.e.* work engagement. Rather, *Guanxi*, according to the present data and results, constituted a valid source of employees' work engagement. This finding indicates that the role of traditional or cultural variables might have changed in the picture of management, especially in economies undergoing economic and social transformations. Future

research might fruitfully investigate the changes of the effects of such variables, like *Guanxi* or *Zhongyong* (*i.e.*, the rule of the golden mean in decision making (Yang and Horak, 2019, p404)) in the Chinese economy.

## 6.8 Summary

This chapter has highlighted the theoretical and practical contributions of this research. It also concludes by outlining the limitations of the research and offering suggestions for future research. As for theoretical contributions, this research has made three key contributions. The first is about work intensification's role as a source of positive work outcome; the second is concerned with the multi-level nature and cross-level influencing mechanism between work intensification and employee outcomes; and the third is about the boundary conditions where work intensification relates with employee outcomes.

The core practical implications of the research were then highlighted. First, managers should design workflows in an intensified context so as to offer challenging demands and induce employees' pursuit of higher fulfilment. Specifically, managers should not only arrange to offer employees social resources associated with higher-order pursuits, like career advancement opportunities, enhanced self-image, or skill mastery opportunities, but also the social factors related to lower-order pursuits, such as support, job security, *etc*, because the satisfaction of lower-order needs will strengthen an employee's motivation to achieve higher-order personal goals. Second, managers should work hard on developing employees' work engagement, not only because it is positively related to multiple outcomes expected by an organization, but also because it is a crucial mediator, via which intensification of work can enhance employee outcomes, such as task performance, job satisfaction, and health and wellbeing. In addition, the



practical contributions based on the results of *Guanxi* with the supervisor, job crafting, and servant leadership are presented.

With the main limitations of this study in view, it has been suggested that future research should explore the complexity of work intensification to reach a deeper understanding about how its different dimensions could work together to generate influence. Thirdly, a more rigorous research design is also recommended, to examine the step-based chain effects; and lastly, it is suggested that future research efforts can investigate the effects in people management at work of some variables, where the roles of those variables have been changed in the continuous social and economic transformation.

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## APPENDIX

### Appendix A: Research Ethics Approval

# Research Ethics Application

Once you have completed this form and obtained the appropriate signatories, please return it to Liz Bridges (e.bridges@aston.ac.uk) with all accompanying documents.

#### Section 1 - Project details

Project title: **Linkages Between Work Intensification, Employee Engagement and Job Performance: An Empirical Investigation in the Chinese Manufacturing**

SREC number (Office use only):

#### Section 2 - Applicant details

Name of researcher (applicant): **QINGHUA LIU**

Status (UG student / PG student / Staff): **PG student** Email address: **qh2000@vip.163.com**

Contact address: **Jihong Kaixuancheng, Baoan District, Shenzhen, China**

Contact telephone: **0086 13823140826**

#### Section 3a – For Students only

Student ID Number: **149187752**

Course: **DBA** Module name and Number:

Supervisor / Module Leader name(s): **Prof. Pawan Budhwar, Dr Jonathan Crawshaw, Dr Zhou Qin**

#### Section 3b – For Supervisors only

Please agree with the following statements by placing an X in the appropriate boxes (if completing electronically, double click on the box and select 'checked').

The student has read the Research Ethics guidelines and the University's Research Governance document	X <input type="checkbox"/>
The topic merits further research	X <input type="checkbox"/>
The student has the skills to carry out the research	X <input type="checkbox"/>
The participant information sheet or leaflet is appropriate	X <input type="checkbox"/>
The procedures for recruitment and obtaining informed consent are appropriate	X <input type="checkbox"/>

The student has been made fully aware about the significance of adhering to ethical guidelines while pursuing their field study. The supporting documents which he has prepared are very appropriate for use

Comments from Supervisor:

in the study context. I will greatly appreciate if this can be dealt with in the near future. Thank you.

#### Section 4 - Summary of research (no more than 300 words)

The research project is about the linkages between work intensification, employee engagement and job performance in the Chinese manufacturing context.

The motivation that led to this research is the need to further broaden the understanding of the factors that influence work intensification to predict work engagement and performance in China manufacturing.

Along with this aim, there are three important aspects that will be investigated, *i.e.*: a) the influence of social context on work intensification practices and employee outcomes, b) the adoption level of work intensification practices and impacts on employee engagement and job outcomes, and c) the possible implications of empowering leadership practices on work intensification and employees' outcomes of job performance.

To address these questions, this study will use questionnaire survey with appropriate constructs scales to collect data. This will involve acquiring data for 100 work teams listed by manufacturers in China by using related existing scales and then performing a cross level analysis on both individual and team levels in order to gain insights of the experiences of the employees at work and to understand the processes that leads to different levels of employee engagement through the mediation models.

The student and his supervisors have conducted an ethical assessment to address any associated risk during the research protocol development. Moreover, the collected data would not be made available to anyone beyond the four key members of this research group (Prof. Pawan, Dr Jonathan, Dr Zhou and myself), and the names of both the research participants and their organisations would be omitted from any data set and future publication.

#### Section 5 – Research protocols (no more than 300 words)

The study embraces close contact with the participants who are subjected to conditions of work and then evaluate using the control variables. The study will have a sample of 100 teams with each team having approximately 3 members from the various companies in China.

Following the strictest requirements for testing mediation models, two waves of data collection will be collected for the study. Where at time 1, I will ask team members to report their perceptions about work intensification, *Guanxi* with leader, job crafting, , servant leadership. At the same time, I will ask team leaders to report their team objectives and perceive team work intensification, and team pay / reward system.

At time 2 (1 month later), I will ask the team members to report their individual work engagement and team engagement, job satisfaction, health, and burnout, and asked the team leader to rate each individual member's task performance, absenteeism, and burnout. At the same time, I will ask the leaders to report team engagement and rate their team performance.

##### Measures to be used:

- Work intensification:

Individual work engagement: 9-item (Schaufeli, Bakker, & Salanova, 2006)

- Team work engagement: 9-item (Torrente, Salanova, Llorens, & Schaufeli, 2012)
- *Guanxi*: 6-item (Law, Wong, Wang, & Wang, 2000)

- Job satisfaction: 4-items Quinn & Shepard (1974)
- Task performance: 11-item (Tsui, Pearce, Porter & Tripoli, 1991)
- Health: (CHQ-12)
- Job crafting: 21-item (Tims, Bakker, & Derks, 2012)

#### **Analytical strategy**

- Multilevel Structural Equation Modeling (MSEM)
- Mplus (Muthen & Muthen, 2012)

### **Section 6 – Data protection (no more than 200 words)**

All the measures to be used will be distributed and collected by hardcopies in the meeting room. The researcher and the participants will take time to review the questions and if needed then feedback will be provided regarding the content, readability, language, and relevance of the measures. Participants' data will be input and stored electronically in the researcher's computer that is password encrypted and will be backed-up securely to the Aston Business School private server to ensure its security and confidentiality throughout the research process.

The confidentiality and anonymity of their answers would be emphasized and assured. I will assign a code for each participant, rather than using real name in the data collection.

The data accessibility will be remained only to the research group (Prof. Budhwar, Dr Crawshaw, Dr Zhou and myself).

Following the United Kingdom Data Protection Act 1998 guidelines that requires the data to be retrievable for a minimum of five years after publication. The data will be kept securely for the length and will be destroyed thereafter.



## Section 7 – Research checklist

Please answer the following questions by placing an X in the appropriate boxes (if completing electronically, double click on the box and select 'checked').

### Participant selection

1. Does the research involve participants who are particularly vulnerable or unable to give informed consent? (e.g. children, those with cognitive impairment or those in unequal relationships, e.g. your own students). If yes, provide detail and copies of consent forms to be included.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? (e.g. students at school, members of a self-help group, residents of a nursing home). If yes, copies of letters of approval to be included.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
3. Will the study involve research of pregnant women / women in labour?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
4. Will the study involve children/legal minors (anyone under the age of 16 years)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
5. Will the study involve adults (over the age of 16 years and competent to give consent)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Will the study involve research on vulnerable categories of people who may include minority groups?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
7. Will the study in research of participants for whom English is not their first language?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
8. Does the research involve investigation of participants involved in illegal activities?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
9. Does the study involve participants aged 16 years or over who are unable to give informed consent? (e.g. people with learning disabilities; see Mental Capacity Act 2005) <b>All research that falls under the auspices of the MCA must be reviewed by NHS NRES (see Qn. 51)</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
10. Number of participants:	100 teams with each team containing at least five members leading to over 500 individual participants
11. Over what time span will participants be used?	Approximately 3-6 months
12. Criteria for selection of participants:	

		<p>The unit of analysis in this study is professional employees working in a team or as individuals and managers responsible for managing teams working in Chinese Manufacturing companies.</p> <p>In order to obtain the greatest statistical power for testing the hypothesis the study collected used 100 teams with each team containing at least five members leading to over 500 individual participants. This would reflect the broad range of the responsibilities that assist in the generalization of the results but with caution.</p> <p>Considerable evidence has depicted that the practices of HRM vary significantly in accordance with the size of the organization and its goal. Thus, only organizations with large number of employees such as 1000 are encapsulated in the study. This is attributed to the fact that larger organizations adapt to participative work practices faster compared to smaller organizations. Also, these organizations adopt well to highly developed internal labour market, intensive training and development practices for better job outcomes (Jackson, Schuler &amp; Rivero 2006). All this suits the context of the current study.</p> <p>All participants will be informed that their participation is entirely voluntary and can withdraw at any time during the data collection process.</p>
13. Source of participants:	Employees in private large manufacturing companies in China	
14. Are the participants patients? If yes, state diagnosis and clinic/responsible practitioner:	<div></div> <div>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></div>	
15. Does the study have any specific exclusion criteria for participants? If yes, on what grounds? If not sure, explain why not:	<div></div> <div>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></div>	
16. Is the activity of the participant to be restricted in any way either before or after the procedure? (e.g. diet, driving). If yes, please specify duration and type(s) of restriction	<div></div> <div>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></div>	
17. Will payments be made to the participants? (other than reasonable expenses and compensation for time) If yes, provide details of how much, for what purpose and how it will be paid:	<div></div> <div>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></div>	
<b>Risk Management – Consent</b>		
18. Does the research involve members of the public in a research capacity (participant capacity)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
a. Will it be necessary for participants / participating organisations and companies to take part in the study without their knowledge and consent at the time? (e.g. covert observation of people in non-public places)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
b. Are the participants fully informed about the procedures to be used and the purpose of the research? If yes, provide copies of participant briefing documents	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
c. Will the consent of the participants / participating organisations and companies be obtained? If yes, provide copies of consent forms. If no, explain why it is not possible to gain the participant's consent and the justification for undertaking the research without it:	<div>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></div> <div>copy attached</div>	
d. Is it clear to the participants / participating organisations and companies that they can	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

withdraw from the study at any time? If yes, provide copies of documents where this is communicated to participants		<input type="checkbox"/>
e. Will participants / participating organisations and companies be fully debriefed after the research is completed? If yes, provide copies of participant debriefing documents	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
f. Have arrangements been made to ensure that material obtained from or about a participant remain confidential?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
19. Will the research involve respondents to the internet or other visual / vocal methods where respondents may be identified?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
20. Will research involve the sharing of data or confidential information beyond the initial consent given? If yes, provide details: <div></div>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
21. What measures have been made to ensure that any participants who are believed to be under some form of duress (e.g. staff, students, prisoners, members of the armed forces, employees of companies sponsoring research) are not coerced into participating: <div> <p>A pre-meeting will be conducted that would involve discussions with HR managers from the various companies before any questionnaires. Organisational charts and team members list will be provided in advance by the managers.</p> <p>The selection of participants will be conducted via an e-mail invitation. Only individuals who responded to the invitation will be expected and called to gather at a meeting room to complete the questionnaires. In addition, the research will adhere to the procedures of ethics guidelines as required. The ethics approval will be obtained prior to data collection. During the study, a major consideration for ethics is the need to protect the identity and the confidentiality of the participants. Any incentive used will be also approved. Along with these considerations, it is important to only include the people who returns the consent forms. Furthermore, they are notified that withdrawal from the study is not restricted. Finally, the willing participants is provided with a sheet that elaborated the purpose of the study.</p> </div>		
<b>Risk Management - Data collection</b>		
22. Does the research involve use of a questionnaire or similar research instrument or measure? If yes, include copies or indicate if the questionnaire has not yet been developed yet. <div></div>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
23. Does the research involve use of written or computerised tests? If yes, include screen shots or indicate if the tests have not yet been developed yet. <div></div>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
24. Does the research involve use of interviews? If yes, include copies of interview questions or indicate if the questions have not yet been developed yet. <div></div>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
25. Does the research involve diaries? If yes, include a copy of the diary record form or indicate if the diary record has not yet been developed yet. <div></div>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
26. Does the research involve participant observation?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
27. Does the research involve audio-recording interviewees or events (observation)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
28. Does the research involve video-recording (e.g. CCTV, video etc) interviewees or events (observation)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
29. Will any people being observed and/or recorded not be informed that the observation and/or recording are taking place?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

30. Does the research involve the deliberate deception of the participant?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
31. Does the research involve the collection of confidential data and/or is there a risk that any participant could be identified from the data collected?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
32. Will the study involve discussion of sensitive topics? (e.g. sexual activity, drug use)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
33. Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
34. Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
35. Will the study involve prolonged or repetitive testing?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
36. What do you consider to be the main ethical issues which may arise from the proposed research and give full details of any hazards, pain, discomfort, distress, inconvenience or use of deception which could affect the health, safety or well-being of any participant, or any other person who might be affected by the research?	
<p>There is no major issue/risk/hazard as the scales operationalised in the research are not invasive and have been tested extensively. The researcher will maintain full transparency regarding the anonymous data handling and management to reassure the participants about the confidentiality of their answers.</p>	
37. What levels of risk are associated with these hazards?	
<p>There is no identifiable hazard in this research. However, anonymous coding of participant will ensure that their answers are fully anonymous and making identification impossible during the whole research process.</p>	
38. How do you propose to control the risks associated with these hazards?	
<p>Associated risks will be controlled by providing participants with a clear information about the research and assuring them regarding the confidentiality of their responses. A procedure guideline of the research will be prepared to inform both HR and all participants about the overall purpose and importance of the research and process of data collection. The researcher will maintain full transparency regarding the anonymous data handling and management to reassure the participants about the confidentiality of their answers.</p>	
39. What criteria have you used to determine whether the risks are acceptable?	
<p>Aside from any slight discomfort that team leaders might experience when are asked to assess their team members, there are no major risks for participants.</p>	
40. Is there any precedent for this research? If so, please give details with references if possible.	
<p>Yes, there is a substantial body of empirical research examining the influence of work intensification and consequences of employee engagement and job performance. However, the nature of the relationship between work intensification and engagement and performance is still under-explored. Moreover, Intensification–Engagement conflict remains largely an unfamiliar concept in HRM in China.</p> <p>The list below will provide several research papers which have examined this related topic.</p> <p>Albrecht, S. L. (2015). Challenge demands, hindrance demands, and psychological need satisfaction. <i>Journal of Personnel Psychology</i>.</p> <p>Alfes, K., Shantz, A. D., Truss, C., &amp; Soane, E. C. (2013). The link between perceived human resource management practices, engagement and employee behavior: a moderated mediation model. <i>The international journal of human resource management</i>, 24(2), 330-351.</p> <p>AON Hewitt Report. (2017). <i>2017 Trends in Global Employee Engagement Global anxiety erodes employee</i></p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

engagement	gains [Ebook].	Retrieved	from
<a href="http://images.transcontinentalmedia.com/LAF/lacom/Aon_2017_Employee-Engagement.pdf">http://images.transcontinentalmedia.com/LAF/lacom/Aon_2017_Employee-Engagement.pdf</a>			
<p>Appelbaum, E. (2013). The impact of new forms of work organization on workers. <i>Work and Employment in the High Performance Workplace</i>, 120-149.</p> <p>Bakker, A. B., &amp; Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. <i>Journal of Occupational and Organizational Psychology</i>, 83(1), 189-206.</p> <p>Bakker, A. B., &amp; Demerouti, E. (2007). The job demands-resources model: State of the art. <i>Journal of managerial psychology</i>, 22(3), 309-328.</p> <p>Bakker, A. B., &amp; Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. <i>Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior</i>, 29(2), 147-154.</p> <p>Bakker, A. B., Demerouti, E., &amp; Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. <i>Journal of occupational health psychology</i>, 10(2), 170 -180.</p> <p>Bakker, A. B., Demerouti, E., De Boer, E., &amp; Schaufeli, W. B. (2003). Job demands and job resources as predictors of absence duration and frequency. <i>Journal of vocational behavior</i>, 62(2), 341-356.</p> <p>Bakker, A. B., Hakanen, J. J., Demerouti, E., &amp; Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. <i>Journal of educational psychology</i>, 99(2), 274.</p> <p>Bakker, A. B., Tims, M., &amp; Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. <i>Human relations</i>, 65(10), 1359-1378.</p> <p>Bakker, A. B., Van Veldhoven, M., &amp; Xanthopoulou, D. (2010). Beyond the demand-control model. <i>Journal of Personnel Psychology</i>.</p> <p>Bakker, A.B., Demerouti, E., &amp; Verbeke, W. (2004). Using the Job Demands – Resources model to predict burnout and performance. <i>Human Resource Management</i>, 43, 83-104.</p> <p>Balducci, C., Fraccaroli, F., &amp; Schaufeli, W.B. (2011). Workplace bullying and its relation with work characteristics, personality, and post-traumatic stress symptoms: An integrated model. <i>Anxiety, Stress &amp; Coping</i>, 24, 499-512.</p> <p>Barbier, M., Dardenne, B., &amp; Hansez, I. (2012). A longitudinal test of the Job Demands–Resources model using perceived stigma and social identity. <i>European Journal of Work and Organizational Psychology</i>, 1, 1-15</p> <p>Biswas, S., Varma, A., &amp; Ramaswami, A. (2013). Linking distributive and procedural justice to employee engagement through social exchange: a field study in India. <i>The International Journal of Human Resource Management</i>, 24(8), 1570-1587.</p>			

<p>Boxall, P., &amp; Macky, K. (2014). High-involvement work processes, work intensification and employee well-being. <i>Work, employment and society</i>, 28(6), 963-984.</p> <p>Bryman, A., &amp; Bell, E. (2015). <i>Business Research Methods</i> (4th ed.). New York: Oxford University Press.</p> <p>Budhwar, P. S., &amp; Debrah, Y. A. (Eds.). (2001). <i>Human resource management in developing countries</i>. London: Routledge.</p> <p>Chang, H. T., Hsu, H. M., Liou, J. W., &amp; Tsai, C. T. (2013). Psychological contracts and innovative behavior: a moderated path analysis of work engagement and job resources. <i>Journal of Applied Social Psychology</i>, 43(10), 2120-2135.</p> <p>Chen, C. F., &amp; Kao, Y. L. (2012). Moderating effects of work engagement and job tenure on burnout–performance among flight attendants. <i>Journal of Air Transport Management</i>, 25, 61-63.</p> <p>Cooke, F. L. 2009. A decade of transformation of HRM in China: a review of literature and suggestions for future studies. <i>Asia Pacific Journal of Human Resources</i>, 47(1), 6-40.</p> <p>Crawford, E. R., LePine, J. A., &amp; Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. <i>Journal of applied psychology</i>, 95(5), 834.</p> <p>Dalal, R. S., Baysinger, M., Brummel, B. J., &amp; LeBreton, J. M. (2012). The relative importance of employee engagement, other job attitudes, and trait affect as predictors of job performance. <i>Journal of Applied Social Psychology</i>, 42(S1), E295-E325.</p> <p>De Jonge, J., Le Blanc, P.M., Peeters, M.C.W., &amp; Noordam, H. (2008). Emotional job demands and the role of matching job resources: A cross-sectional survey study among health care workers. <i>International Journal of Nursing Studies</i>, 45, 1460-1469.</p> <p>Demerouti, E. (2014). Design your own job through job crafting. <i>European Psychologist</i>.</p> <p>Demerouti, E., Bakker, A. B., &amp; Fried, Y. (2012). Work orientations in the job demands-resources model. <i>Journal of Managerial Psychology</i>, 27(6), 557-575.</p> <p>Fuchs, S. &amp; Edwards, M. (2012) 'Predicting pro-change behavior: the role of perceived organisational justice and organisational identification'. <i>Human Resource Management Journal</i> 22(1):39-59.</p> <p>Green, F. (2004). Work intensification, discretion, and the decline in well-being at work. <i>Eastern Economic Journal</i>, 30(4), 615-625.</p> <p>Häusser, J. A., Mojzisch, A., Niesel, M., &amp; Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand–Control (-Support) model and psychological well-being. <i>Work &amp; Stress</i>, 24(1), 1-35.</p> <p>Kelliher, C., Hailey, V.H., &amp; Farndale, E. (2014). Employee engagement in multinational organizations. In Truss,</p>	
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<p>C., Delbridge, R., Alfes, K., Shantz, A. and Soane, E. (Eds). <i>Employee engagement: In theory and practice</i> (pp.180-194). Routledge: New York.</p> <p>Kim, W., Kolb, J. A., &amp; Kim, T. (2013). The relationship between work engagement and performance: A review of empirical literature and a proposed research agenda. <i>Human Resource Development Review</i>, 12(3), 248-276.</p> <p>Liang, G.Q. &amp; Zhang, W. (2015) Effect of Organizational Support on Job Involvement: the Mediating Role of Psychological Capital. <i>Management and Administration</i>. 9, 135-137.</p> <p>Petrou, P., Demerouti, E., Peeters, M., Schaufeli, W. B., &amp; Hetland, J. (2012). Crafting a job on a daily basis: Contextual antecedents and the link to work engagement. <i>Journal of Organizational Behavior</i>, 33, 1120–1141.</p> <p>Schaufeli, W.B., &amp; Taris, T.W. (2014). A critical review of the Job Demands-Resources Model: Implications for improving work and health. In G.F. Bauer &amp; O. Hämmig (Eds.), <i>Bridging occupational, organizational and public health</i> (pp.43-68). Amsterdam: Springer.</p> <p>Shvartsman, E., &amp; Beckmann, M. (2015, July). Stress and Work Intensification: What is the Influence of Personnel Policy? In <i>27th Annual Meeting</i>. Sase.</p> <p>Tims, M., Bakker, A. B., &amp; Derks, D. (2015). Job crafting and job performance: A longitudinal study. <i>European Journal of Work and Organizational Psychology</i>, 24(6), 914-928</p> <p>Zhang, H., Kwan, H.K., Everett, A.M. &amp; Jian, Z. (2012). Servant leadership, organizational identification, and work-to-family enrichment: the moderating role of work climate for sharing family concerns. <i>Human Resource Management</i>, 51(5), 747-767.</p>	
<p>41. What measures have been made for participants who might be vulnerable or might not adequately understand verbal explanations or written information given in English or have special communication needs (e.g. translation, use of interpreters, use of chaperones, presence of guardians, researchers from same gender as participants etc.):</p> <p>I have already identified scales for all the research constructs. Number of them have been already validated in the Chinese context. But during of my pilot, I will insure that the scales are suitable for the Chinese context. Pilot will put all these scales together. I will translate them in Chinese with the help of my relevant supervisor and a professional translator.</p>	
<p>42. Is there the potential for adverse risks to the researchers themselves? (e.g. in international research: locally employed research assistants)</p>	<p>Yes <input type="checkbox"/> No X</p>
<p>43. Having reflected upon the ethical implications of the project and/or its potential findings, do you believe that the research could be a matter of public controversy or have a negative impact on the reputation/standing of Aston University?</p>	<p>Yes <input type="checkbox"/> No X</p>
<p>44. How will the results be made available to participants and communities from which they are drawn?</p> <p>An executive summary of the research will be provided to the participating companies.</p>	
<p><b>Risk management – Location</b></p>	

45. Location of research (enter details of all sites where research will take place and specify the elements of research to be undertaken at each site):	
The study is expected to have a sample of 100 teams with each team having approximately 3 members from the various companies in China.	
46. Will the research take place outside of the UK? If yes, provide details and include copies of insurance documents:	Yes X    No <input type="checkbox"/>
Guangdong Province, China	
<b>Confidentiality and Data Protection</b>	
47. What measures have been put in place to ensure security and confidentiality of personal data and video/audio recordings?	
There will not be any video/audio recording during the data collection. Participants' data will be input and stored electronically in the researcher's computer that is password encrypted and will be back-up securely to the Aston Business School private server to ensure its security and confidentiality throughout the research process. All data will be securely protected, and access to data will only be granted to researcher and supervisory team.	
48. Where and by whom will the data be analysed?	
The data will be analysed by the research team in Aston University, UK.	
49. Who will have access to the data generated by the study?	
The researcher (Mr Qinghua Liu) and his supervisory team (Prof. Budhwar, Dr Crawshaw, and Dr Zhou).	
50. When will personal data and any video/audio recordings be destroyed following completion of the research?	
The data obtained from the survey will be kept for a minimum of five years' post publication according to the UK Data Protection Act of 1998 and the American Psychological Association Guidelines. There is no any video/audio recording for this study.	
<b>Peer review</b>	
How has the quality of the research been assessed?	
The quality of the research will be assessed continuously by the supervisory team who are experts in this field of study. Especially, there is an associate supervisor who is from Durham University on-board, from whom I can get more effectively support of the Chinese side of this research.	
<b>NHS related research</b>	
51. Will the research need to be reviewed by NHS NRES Committee or an external Ethics Committee? (if yes, please give brief details as an annex)	Yes <input type="checkbox"/> No X
52. Will the study involve recruitment of patients or staff through the NHS or the use of NHS data premises and/or equipment?	Yes <input type="checkbox"/> No X
<b>Insurance</b>	
53. What arrangements have been made to provide indemnity and/or compensation in the event of a claim by, or on behalf of, participants for negligent and/or for non-negligent harm? Please note that you should not undertake to provide any form of indemnity or insurance cover without first referring the matter to the Deputy Director of Finance for her/his consideration.	
There is no harm expected to the participants in this research. The scales that will be utilised in the research have been strongly validated and published in top ranking peer-reviewed journals. Nevertheless, several arrangements will be made in place to control the already low likelihood of causing harm may result in compensation:	
1) A pre-meeting will be conducted that involved discussions with HR managers from the organisations which the formal approval has been received.	



2)	The selection of participants will be conducted via an e-mail invitation. Only individuals who responded form the invitation will be expected and called to gather at a meeting room to complete the questionnaires.
3)	In addition, the research will adhere to the procedures of ethics guidelines as required. The ethics approval will be obtained prior to data collection.
4)	During the study, a major consideration for ethics is the need to protect the identity and the confidentiality of the participants.
5)	Any incentive used will be also approved.
6)	A procedure guideline of the research will be prepared to inform both HR and all participants about the overall purpose and importance of the research and process of data collection.
7)	The researcher will maintain full transparency regarding the anonymous data handling and management to reassures the participants about the confidentiality of their answers.

## Section 8 – Declaration by Applicant

The information contained above is, to the best of my knowledge and belief, accurate. I have read the University's Code of Practice for Ethical Standards for Research and accept responsibility for the conduct of the procedures set out in this application in accordance with the guidelines, and any other condition laid down by the University's Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

I and my supervisors or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise.

Signed:	QINGHUA LIU	Date:	16 <sup>th</sup> July, 2018
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## Section 9 – Signatories

To be completed by the Principal Investigator / Lead Researcher / Supervisor / Module Leader / Research Group Convenor / Research Ethics Committee Chair as applicable

Principal Investigator or Lead Researcher (where appropriate):		Date:	
Supervisor or Module Leader (where appropriate):	<i>PS Budhwar</i>	Date:	3 August 2018
Research Group Convenor (or nominee):		Date:	
ABS Research Ethics Committee (Chair or nominee):		Date:	

(Last updated November 2013)

## **Appendix B: Cover Letter and Sample Questionnaire**

### **Cover Letter of Questionnaire (English Version)**

#### **LEADER SURVEY**

##### **Work intensification-Engagement-Performance Relationship Survey**

Dear Manager/ Supervisor:

We are conducting a research study about workforce management in Chinese manufacturing. It would be greatly appreciated if you would respond to the questions in this survey.

The purpose of this study is to investigate further and broaden the understanding of factors that impact work intensification to predict work engagement and performance. Your honest and open participation is vital to our ability to accurately discover the spectrum of effects.

Your participation will involve two waves' questionnaires. It doesn't take long to complete.

The findings from this project will provide information on how to improve and maintain the workforce competitiveness through appropriate HR Practices with no cost to your employer other than the time it takes for the survey.

Involvement in this survey is voluntary. All responses to the questionnaires will be kept completely CONFIDENTIAL and will be used only for the purposes of this study with no specific individuals identified. Thank you for your participation!

If you have any comments, questions, or concerns with regards to the survey, the questions, or the purpose of the study, please contact Qinghua Liu at [Liuq12@aston.ac.uk](mailto:Liuq12@aston.ac.uk).

Sincerely,

Qinghua Liu

# **EMPLOYEE SURVEY**

## **Work intensification-Engagement-Performance Relationship Survey**

Dear Colleague:

We are conducting a research study about workforce management in Chinese manufacturing. It would be greatly appreciated if you would respond to the questions in this survey.

The purpose of this study is to investigate further and broaden the understanding of factors that impact work intensification to predict work engagement and performance. Your honest and open participation is vital to our ability to accurately discover the spectrum of effects.

Your participation will involve two waves' questionnaires. It doesn't take long to complete.

The findings from this project will provide information on how to improve and maintain the workforce competitiveness through appropriate HR Practices with no cost to your employer other than the time it takes for the survey.

Involvement in this survey is voluntary. All responses to the questionnaires will be kept completely CONFIDENTIAL and will be used only for the purposes of this study with no specific individuals identified. Thank you for your participation!

If you have any comments, questions, or concerns with regards to the survey, the questions, or the purpose of the study, please contact Qinghua Liu at [Liuq12@aston.ac.uk](mailto:Liuq12@aston.ac.uk).

Sincerely,

Qinghua Liu

## Cover Letter of Questionnaire (Chinese Version)

### 主管问卷

#### 工作强化-工作投入-绩效相互关系的研究

**衷心感谢您参与这次的问卷调查！**

目前我们正在进行一项关于中国制造业人力资源管理的研究。本研究的主要目的是**进一步探讨研究影响工作强化的因素，以预测员工的工作投入与工作绩效，并且在此基础上帮助企业制定和采用合适的员工队伍管理机制，实现团队成长和企业高绩效。**您诚实和开放的参与对我们的研究成果至关重要。

我们的问卷调查将分两次进行。需要作答的时间都不长。

透过本调研，我们将为您的公司免费提供有关如何通过适当的人力资源管理实践来提高和保持员工队伍竞争力的建议报告。

**这项调查完全是自愿性的。请您放心，您提供的所有答案将受到最高程度的保密处理，并且，仅限于本研究内不具名的使用。**

多谢您的参与！

对于本次调研，如有任何的疑问和建议，请直接联系刘清华：Liuq12@aston.ac.uk

# 员工问卷

## 工作强化-工作投入-绩效相互关系的研究

**衷心感谢您参与这次的问卷调查！**

目前我们正在进行一项关于中国制造业人力资源管理的研究。本研究的主要目的是**进一步探讨研究影响工作强化的因素，以预测员工的工作投入与工作绩效，并且在此基础上帮助企业制定和采用合适的员工队伍管理机制，实现团队成长和企业高绩效。**您诚实和开放的参与对我们的研究成果至关重要。

我们的问卷调查将分两次进行。需要作答的时间都不长。

透过本调研，我们将为您的公司免费提供有关如何通过适当的人力资源管理实践来提高和保持员工队伍竞争力的建议报告。

**这项调查完全是自愿性的。请您放心，您提供的所有答案将受到最高程度的保密处理，并且，仅限于本研究内不具名的使用。**

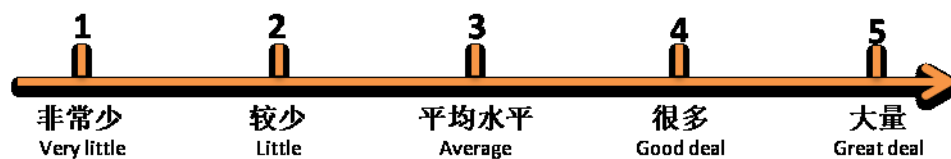
多谢您的参与！

对于本次调研，如有任何的疑问和建议，请直接联系刘清华：Liuq12@aston.ac.uk

## Leader Questionnaire (in English and Chinese)

### LEADER SURVEY(L-T1)

**A:**This section is about your views of your team's work intensity related matters. For each statement, indicate the extent of your opinions as a description of your team's intensity at work.



Over the past year, in my team.....

Q1: The number of things to be done simultaneously

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

Q2: The number of work tasks per working day

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

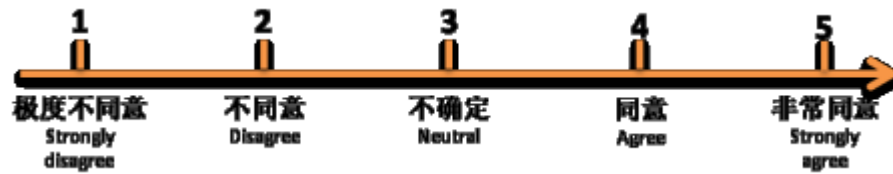
Q3:The work pace

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

Q4:The amount of time pressure (due to deadlines)

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

**B:**The statements below describe the tendency of your colleagues to manipulate and control their job. For each statement, indicate the extent of your agreement or disagreement as a description of your team's tendency to master their job.



On the whole, team members in my team.....

Q5:Try to develop their own capabilities

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q6:Try to develop themselves professionally

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q7:Try to learn new things at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q8:Make sure that they use their capabilities to the fullest

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q9:Decide on their own how to do things

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q10:Make sure that their work is mentally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q11:Try to ensure that their work is emotionally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q12:Manage their work so that they try to minimize contact with people whose problems affect them emotionally

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q13:Organize their work so as to minimize contact with people whose expectations are unrealistic

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q14:Try to ensure that they do not have to make many difficult decisions at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q15:Organize their work in such a way to make sure that they do not have to concentrate for too long a period at once

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q16:Ask their manager/supervisor to coach them

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q17:Ask whether their manager/supervisor is satisfied with their work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q18:Look to their manager/supervisor for inspiration

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree



Q19:Ask others for feedback on their job performance

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q20:Ask colleagues for advice

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q21:Offer themselves proactively as a project co-worker when an interesting project comes along

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q22:Are one of the first to learn about, and try out, new developments

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q23:See it as a chance to start new projects when there is not much to do at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q24:Regularly take on extra tasks even though they do not receive extra salary for them

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q25:Try to make their work more challenging by examining the underlying relationships between aspects of their job

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

**C:**Please answer the following about YOURSELF.

1:Gender

Male

Female

2:Age

---

3:Educational background

Senior high school and below (including technical secondary school)

Junior college

Undergraduate

Postgraduate and above

4:How long have you been with your present employer?(years)

---

5:How long have you been with your present team?(years)

---

6:Team Size

3-10

11-20

21-30

31-50

51 above

7:Length of Time working as the team leader(years)

---

8:Functional departments

R&D

Production

QC

Marketing&Sales

Purchase

HR&Admin&Financial

Others

9:Level in the organizational hierarchy

Top level management

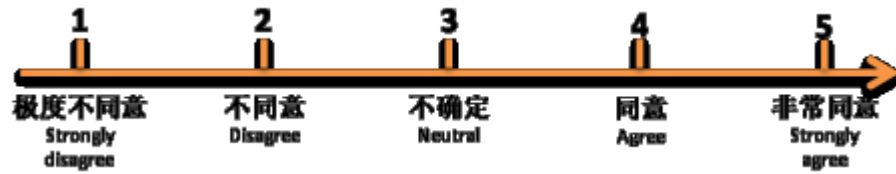
Senior level management

Middle level management

First level management

## LEADER SURVEY(L-T2)

**A:**This section is about your views of your team's work engagement related matters. For each statement, indicate the extent of your opinions as a description of your team's engagement at work.



Q1:This/My team is bursting with energy at work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

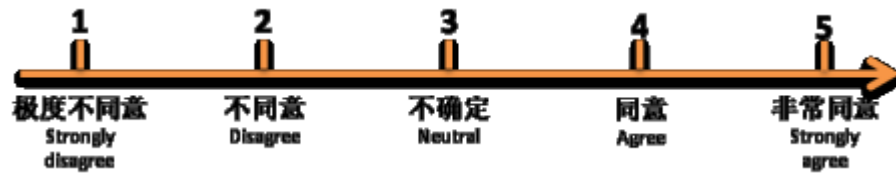
Q2:This/My team Is enthusiastic about the work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q3:This/My team is immersed in its work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

**B:** This section is about your views of your team's task performance. For each statement, indicate the extent of your opinions as a description of your team's performance at work.



Q4: This/My team performs well at work

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree    5. Strongly agree

Q5: This/My team is effective in getting things done

1. Strongly disagree    2. Disagree    3. Neutral    4. Agree    5. Strongly agree

Q6: In general, this/my team is effective with respect to work

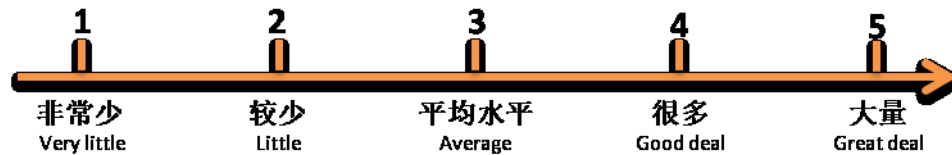
1. Strongly disagree    2. Disagree    3. Neutral    4. Agree    5. Strongly agree

# Employee Questionnaire (English and Chinese)

## EMPLOYEE SURVEY(E-T1)

### PART 1:ABOUT MY TEAM

**A:**This section is about your views of your team's work intensity related matters. For each statement, indicate the extent of your opinions as a description of your team's intensity at work.



Over the past year, in our team.....

Q1:The number of things to be done simultaneously

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

Q2:The number of work tasks per working day

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

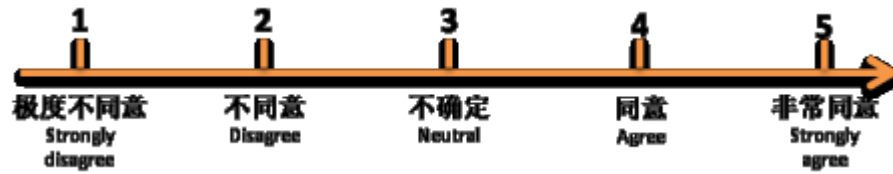
Q3:The work pace

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

Q4:The amount of time pressure (due to deadlines)

1.Very little      2.Little      3.Average      4.Good deal      5.Great deal

**B:**The statements below describe the tendency of your colleagues to manipulate and control their job. For each statement, indicate the extent of your agreement or disagreement as a description of your team's tendency to master their job.



On the whole, team members in our team.....

Q5: Try to develop their own capabilities

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q6: Try to develop themselves professionally

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q7: Try to learn new things at work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q8: Make sure that they use their capabilities to the fullest

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q9: Decide on their own how to do things

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q10: Make sure that their work is mentally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q11: Try to ensure that their work is emotionally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q12: Manage their work so that they try to minimize contact with people whose problems affect them emotionally

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q13: Organize their work so as to minimize contact with people whose expectations are unrealistic

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q14:Try to ensure that they do not have to make many difficult decisions at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q15: Organize their work in such a way to make sure that they do not have to concentrate for too long a period at once

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q16:Ask their manager/supervisor to coach them

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q17:Ask whether their manager/supervisor is satisfied with their work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree



Q18: Look to their manager/supervisor for inspiration

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q19: Ask others for feedback on their job performance

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q20: Ask colleagues for advice

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q21: Offer themselves proactively as a project co-worker when an interesting project comes along

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q22:Are one of the first to learn about, and try out, new developments

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q23:See it as a chance to start new projects when there is not much to do at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q24:Regularly take on extra tasks even though they do not receive extra salary for them

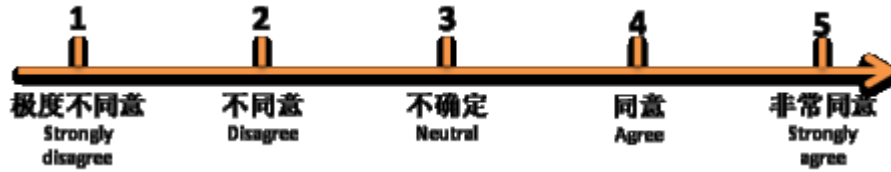
1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q25: Try to make their work more challenging by examining the underlying relationships between aspects of their job

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

## PART 2: ABOUT MY MANAGER

**C:** The statements below describe leadership behaviors or style. For each statement, indicate the extent to which it describes the behaviors of your immediate manager/supervisor.



Q26: My manager/supervisor can tell if something work-related is going wrong

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q27: My manager/supervisor makes my career development a priority

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q28: I would seek help from my manager/supervisor if I had a personal problem

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q29: My manager/supervisor emphasizes the importance of giving back to the community

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q30: My manager/supervisor puts my best interests ahead of his/her own

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q31: My manager/supervisor gives me the freedom to handle difficult situations in the way that I feel is best

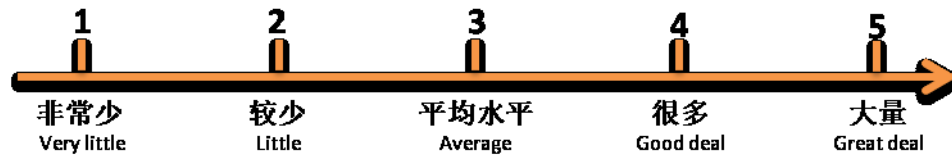
1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q32: My manager/supervisor would not compromise ethical principles in order to achieve success

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

### PART 3: ABOUT ME

**D:** This section is about your views of your work intensity related matters. For each statement, indicate the extent of your opinions as a description of your intensity at work.



Over the past year, in my work.....

Q33: The number of things to be done simultaneously

1. Very little      2. Little      3. Average      4. Good deal      5. Great deal

Q34: The number of work tasks per working day

1. Very little      2. Little      3. Average      4. Good deal      5. Great deal

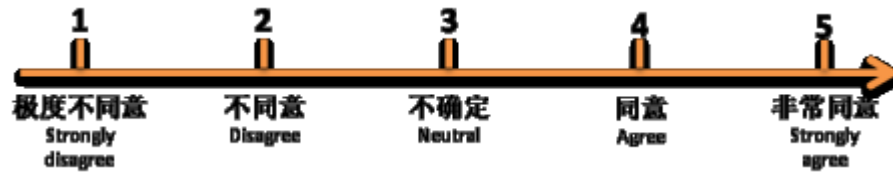
Q35: The work pace

1. Very little      2. Little      3. Average      4. Good deal      5. Great deal

Q36: The amount of time pressure (due to deadlines)

1. Very little      2. Little      3. Average      4. Good deal      5. Great deal

**E:**The statements below describe the tendency of individuals to manipulate and control their job. For each statement, indicate the extent of your agreement or disagreement as a description of your tendency to master your job.



On the whole, in my work.....

Q37: I try to develop my capabilities

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q38: I try to develop myself professionally

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q39: I try to learn new things at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q40: I make sure that I use my capacities to the fullest

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q41: I decide on my own how I do things

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q42: I make sure that my work is mentally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q43: I try to ensure that my work is emotionally less intense

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q44: I manage my work so that I try to minimize contact with people whose problems affect me emotionally

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q45: I organize my work so as to minimize contact with people whose expectations are unrealistic

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q46: I try to ensure that I do not have to make many difficult decisions at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q47: I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q48: I ask my manager/supervisor to coach me

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q49: I ask whether my manager/supervisor is satisfied with my work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q50: I look to my manager/supervisor for inspiration

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q51: I ask others for feedback on my job performance

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q52: I ask colleagues for advice

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q53: When an interesting project comes along, I offer myself proactively as project co-worker

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q54: If there are new developments, I am one of the first to learn about them and try them out

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q55: When there is not much to do at work, I see it as a chance to start new projects

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

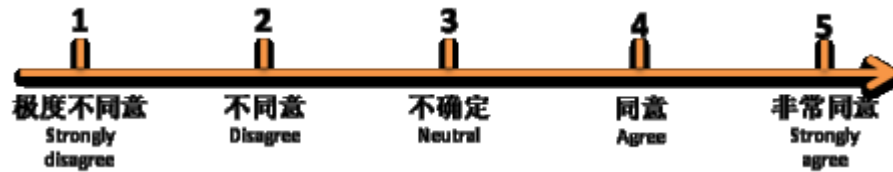
Q56: I regularly take on extra tasks even though I do not receive extra salary for them

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q57: I try to make my work more challenging by examining the underlying relationships between aspects of my job

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

**F:**Below are statements that describe the nature of the relationship between an employee and his or her manager/supervisor. For each statement, indicate the extent of your agreement or disagreement as a description of your relationship with your manager/supervisor.



Q58: During holidays or after office hours, I would call my manager/supervisor or visit him/her

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Q59: My manager/supervisor invites me to his/her home for lunch or dinner

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Q60: On special occasions, such as my manager/supervisor's birthday, I would definitely visit my supervisor and send him/her gifts

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Q61: I always actively share with my manager/supervisor about my thoughts, problems and needs and feelings

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Q62: I care about and have a good understanding of my manager/supervisor's family and work conditions

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Q63: When there are conflicting opinions, I will definitely stand on my manager/supervisor's side

1.Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

**G:**Please answer the following about YOURSELF.

1: Gender

Male

Female

2: Age

---

3: Educational background

Senior high school and below (including technical secondary school)

Junior college

Undergraduate

Postgraduate and above

4: How long have you been with your present employer?(years)

---

5: How long have you been with your present team?(years)

---

6: Team Size

3-10

11-20

21-30

31-50

51 above

7: Length of Time working with the team leader(years)

---



## 8: Functional departments

R&D

Production

QC

Marketing&Sales

Purchase

HR&Admin&Financial

Others

## EMPLOYEE SURVEY(E-T2)

### PART 1:ABOUT MY TEAM

**A:** This section is about your views of your team's work engagement related matters. For each statement, indicate the extent of your opinions as a description of your team's engagement at work.



Q1: This/My team is bursting with energy at work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

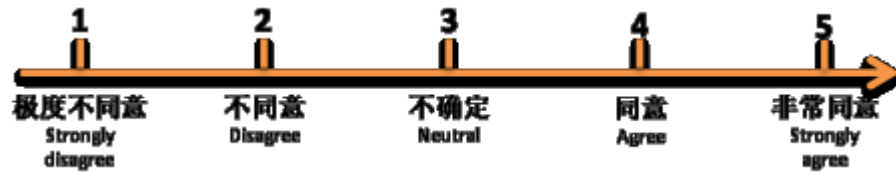
Q2: This/My team is enthusiastic about the work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q3: This/My team is immersed in its work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

**B:** This section is about your views of your team's task performance. For each statement, indicate the extent of your opinions as a description of your team's performance at work.



Q4: This/My team performs well at work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q5: This/My team is effective in getting things done

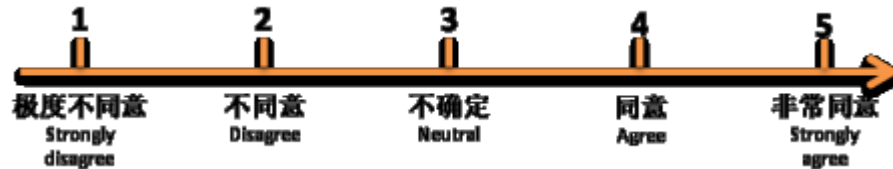
1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

Q6: In general, this/my team is effective with respect to work

1.Strongly disagree    2.Disagree                      3.Neutral                      4.Agree                      5.Strongly agree

## PART 2:ABOUT ME

**C:** This section is about your views of individual work engagement. For each statement, indicate the extent of your opinions as a description of your engagement at work.



I think.....

Q7: At my work, I feel bursting with energy

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q8: At my job, I feel strong and vigorous

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q9: When I get up in the morning, I feel like going to work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q10: I am enthusiastic about my job

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q11: My job inspires me

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q12: I am proud of the work that I do

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q13: I feel happy when I am working intensely

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q14: I am immersed in my work

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

Q15: I get carried away when I am working

1.Strongly disagree    2.Disagree    3.Neutral    4.Agree    5.Strongly agree

**D:** The statements below describe an employee's experiences about his/her task performance in an organizational context. For each statement, indicate the extent of your agreement or disagreement as a description of your task performance in the context of your team.



in my work.....

Q16: Coordinated your work with team members

1. Very little      2. Little      3. Average      4. Often      5. Very often

Q17: Communicated effectively with your team members

1. Very little      2. Little      3. Average      4. Often      5. Very often

Q18: Provided help to team members when asked, or needed

1. Very little      2. Little      3. Average      4. Often      5. Very often

Q19: Dealt effectively with changes affecting your team (e.g., new members)

1. Very little      2. Little      3. Average      4. Often      5. Very often

Q20: Learned new skills or taken on new roles to cope with changes in the way your team works

1. Very little      2. Little      3. Average      4. Often      5. Very often

Q21: Responded constructively to changes in the way your team works

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q22: Suggested ways to make your team more effective

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q23: Developed new and improved methods to help your team perform better

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q24: Improved the way your team does things

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

**E:** Below are statements that describe an employee's self-perception about his/her general health at work. For each statement, indicate the extent of your views as a description of how you perceive your general health at work.



Over the past month.....

Q25: Able to concentrate

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q26: Loss of sleep over worry

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q27: Playing a useful part

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q28: Capable of making decisions

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q29: Felt constantly under strain

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q30: Couldn't overcome difficulties

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often



Q31: Able to enjoy day-to-day activities

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q32: Able to face problems

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q33: Feeling unhappy and depressed

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q34: Losing confidence

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q35: Thinking of self as worthless

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

Q36: Feeling reasonably happy

1.Very little                  2.Little                  3.Average                  4.Often                  5.Very often

**F:**Below are statements that describe an employee's self-perception in the context of reward at work. For each statement, indicate the extent of your satisfaction or dissatisfaction as a description of how you perceive your reward in the context of your workplace.



Q37: variety of work performed

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
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Q38: amount of challenge in the job

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q39: opportunities to use your skills and abilities

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q40: the amount of freedom you have to decide how to perform your work

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
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Q41: financial rewards (pay and fringe benefits)

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q42: job security

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
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Q43: opportunities for promotion or advancement

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q44: relations with co-workers

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q45: physical working conditions

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q46: support from others

1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

Q47: praise for job performance

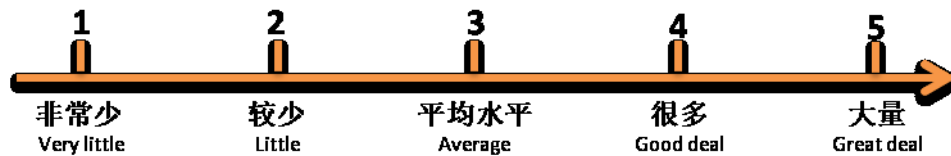
1.Strongly dissatisfied	2.Dissatisfied	3.Neutral	4.Satisfied	5.Strongly satisfied
----------------------------	----------------	-----------	-------------	----------------------

## Leader Questionnaire (Time 1) (Chinese Version)

### 主管问卷 (L-T1)

A、以下是关于您团队工作量和工作压力等变化情况的问题。

请选择您对每一项陈述的变化程度。



在过去一年中，我的团队.....

Q1:同时要完成的事情数量

1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q2:每个工作日的工作任务量

1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q3:工作节奏

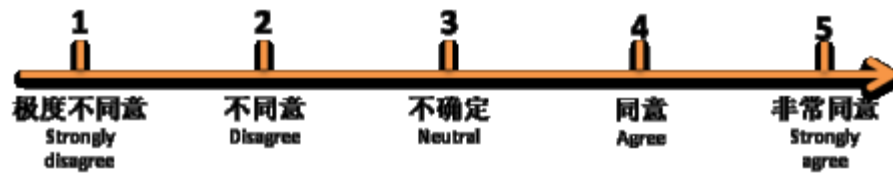
1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q4:需要按期限完成工作的压力

1.非常少      2.较少      3.平均水平      4.很多      5.大量

**B、以下是关于您团队成员开展和执行工作的方式、方法、风格或状态等的问题。**

请选择您对每一项陈述的同意或不同意程度。



总体来讲，在我的团队中.....

Q5:团队成员努力发展他/她们自己的能力

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q6:团队成员努力提高他/她们自己的专业水平

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q7:团队成员努力在工作中学习新事物

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q8:团队成员确保他/她们充分发挥自己的才能

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q9:团队成员决定他/她们自己做事的方式

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q10:团队成员尽量不让工作给他/她们自己造成思想负担

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q11:团队成员在工作中尽量避免情绪化

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q12:团队成员在工作中尽量减少与那些影响他/她们情绪的人接触

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q13:团队成员在工作中尽量减少接触那些对他/她们有不切实际期望的人

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q14:团队成员努力确保在工作中不必做许多困难的决定

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q15:团队成员合理安排他/她们自己的工作，确保他/她们自己不必一次性突击工作太长时间

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q16:团队成员向他/她们的主管请教

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q17:团队成员征求主管对他/她们的工作的看法

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q18:团队成员以主管为学习的榜样

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q19:团队成员请他人对他/她们的工作表现给予反馈意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q20:团队成员咨询同事的意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q21:当团队需要做一个有意思的项目时，团队成员主动请求加入

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q22:如果有新的技术出现，我们是第一个了解并尝试的团队之一

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q23:当工作任务不是很多时，我们团队会认为这是开始新项目的机会

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q24:即使没有收到额外的薪酬，团队成员也经常承担额外的工作

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q25:团队成员尝试通过探索各项工作之间的基本联系，来使他/她们的工作更具挑战性

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意



**c、以下是关于您个人的简单信息，仅限于统计使用。**

请回答以下问题。

**1、您的性别**

男

女

**2、您的年龄（岁）**

---

**3、您的教育背景**

高中及以下（含中专）

大专

本科

研究生及以上

**4、您在目前公司的就职时间（年）**

---

**5、您在目前团队的时间（年）**

---

**6、您目前所在团队的人数规模**

3-10 人

11-20 人

21-30 人

31-50 人

51 人以上

7、您被任命为该团队主管（经理）的时间（年）

---

8、您的职能所属

技术或研发

生产制造

品质

市场

采购

人事行政财务

其他

9、您的管理层级

最高层（董事长、总经理和董事等）

高层管理（副总、总工等）

中层管理（总监、部门经理等）

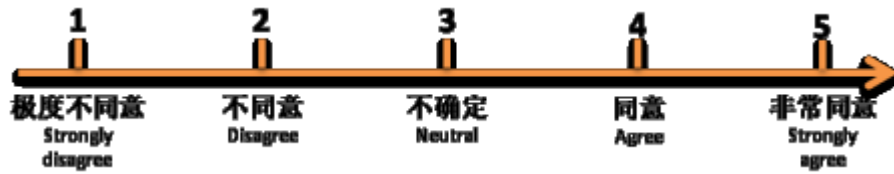
一线管理（科长、主管、班组长等）

## Leader Questionnaire (Time 2) (Chinese Version)

### 主管问卷 (L-T2)

#### A、以下是关于您团队的工作状态的问题

请选择您对每一项陈述的同意或不同意程度。



Q1:我团队在工作中充满活力

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q2:我团队对工作充满热情

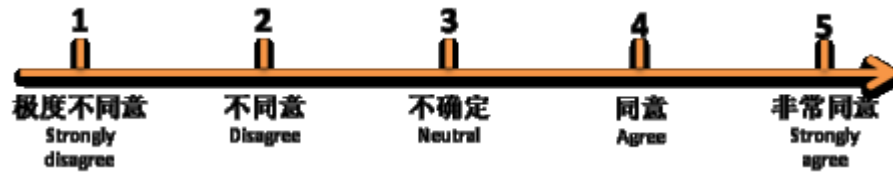
1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q3:我团队工作专心投入

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

**B、以下是关于您团队的工作整体表现的问题。**

请选择您对每一项陈述的同意或不同意程度。



Q4:我团队在工作中表现出色

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q5:我团队在完成任务方面效率很高

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q6:总的来说，我团队在工作方面是有成效的

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

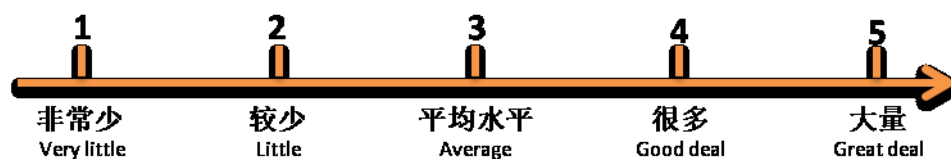
# Employee Questionnaire (Time 1) (Chinese Version)

## 员工问卷 (E-T1)

### 第一部分:关于我的团队

A、以下是关于您团队工作量和工作压力等变化情况的问题。

请选择您对每一项陈述的变化程度。



在过去一年中，我们团队.....

Q1:同时要完成的事情数量

1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q2:每个工作日的工作任务量

1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q3:工作节奏

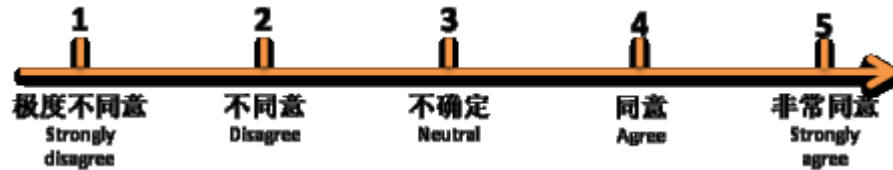
1.非常少      2.较少      3.平均水平      4.很多      5.大量

Q4:需要按期限完成工作的压力

1.非常少      2.较少      3.平均水平      4.很多      5.大量

**B、以下是关于您团队成员开展和执行工作的方式、方法、风格或状态等的问题。**

请选择您对每一项陈述的同意或不同意程度。



总体来讲，在我们的团队中.....

Q5:团队成员努力发展他/她们自己的能力

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q6:团队成员努力提高他/她们自己的专业水平

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q7:团队成员努力在工作中学习新事物

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q8:团队成员确保他/她们充分发挥自己的才能

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q9:团队成员决定他/她们自己做事的方式

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q10:团队成员尽量不让工作给他/她们自己造成思想负担

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q11:团队成员在工作中尽量避免情绪化

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q12:团队成员在工作中尽量减少与那些影响他/她们情绪的人接触

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q13:团队成员在工作中尽量减少接触那些对他/她们有不切实际期望的人

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q14:团队成员努力确保在工作中不必做许多困难的决定

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q15:团队成员合理安排他/她们自己的工作，确保他/她们自己不必一次性突击工作太长时间

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q16:团队成员向他/她们的主管请教

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q17:团队成员征求主管对他/她们的工作的看法

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q18:团队成员以主管为学习的榜样

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q19:团队成员请他人对他/她们的工作表现给予反馈意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q20:团队成员咨询同事的意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q21:当团队需要做一个有意思的项目时，团队成员主动请求加入

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q22:如果有新的技术出现，我们是第一个了解并尝试的团队之一

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q23:当工作任务不是很多时，我们团队会认为这是开始新项目的机会

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q24:即使没有收到额外的薪酬，团队成员也经常承担额外的工作



1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

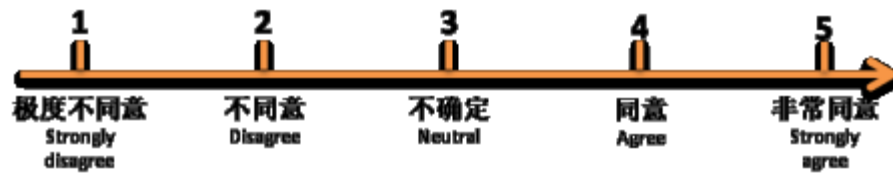
Q25:团队成员尝试通过探索各项工作之间的基本联系，来使他/她们的工作更具挑战性

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

## 第二部分:关于我的主管

c、以下是关于您团队主管（经理）日常领导风格以及你们之前互动关系等的问题。

请选择您对每一项陈述的同意或不同意程度。



Q26:如果工作中有什么问题，我的主管能指出来

1. 极度不同意      2. 不同意      3. 不确定      4. 同意      5. 非常同意

Q27:我的主管优先考虑我的职业发展

1. 极度不同意      2. 不同意      3. 不确定      4. 同意      5. 非常同意

Q28:如果我个人遇到什么问题，我会向我的主管寻求帮助

1. 极度不同意      2. 不同意      3. 不确定      4. 同意      5. 非常同意

Q29:我的主管强调回馈社会的重要性

1. 极度不同意      2. 不同意      3. 不确定      4. 同意      5. 非常同意

Q30:我的主管把我的最佳利益放在他/她自己的利益之前

- 1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q31:我的主管给我自由去根据自己的判断处理棘手的情况

- 1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q32:我的主管不会为了追求成功而违背道德的准则

- 1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

### 第三部分:关于我自己

D、以下是关于您个人工作量和工作压力等变化情况的问题。

请选择您对每一项陈述的变化程度。



在过去一年中，我的工作.....

Q33:我个人同时要完成的事情数量

1.非常少                  2.较少                  3.平均水平                  4.很多                  5.大量

Q34:我个人每个工作日的工作任务量

1.非常少                  2.较少                  3.平均水平                  4.很多                  5.大量

Q35:我个人的工作节奏

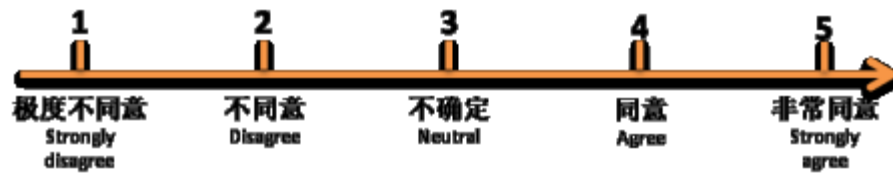
1.非常少                  2.较少                  3.平均水平                  4.很多                  5.大量

Q36:我个人需要按期限完成工作的压力

1.非常少                  2.较少                  3.平均水平                  4.很多                  5.大量

E、以下是关于您开展和执行工作的方式、方法、风格或状态等的问题。

请选择您对每一项陈述的同意或不同意程度。



总体来讲，在工作中.....

Q37:我努力发展自己的能力

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q38:我努力提高自己的专业水平

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q39:我努力在工作中学习新事物

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q40:我确保我充分发挥自己的才能

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q41:我决定自己做事的方式

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q42:我尽量不让工作给自己造成思想负担

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q43:我在工作中尽量避免情绪化

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q44:我在工作中尽量减少与那些影响我情绪的人接触

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q45:我在工作中尽量减少接触那些对我有不切实际期望的人

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q46:我努力确保在工作中不必要去做许多困难的决定

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q47:我合理安排自己的工作，确保自己不必一次性突击工作太长时间

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q48:我向主管请教

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q49:我征求主管对我的工作的看法

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q50:我以主管为学习的榜样

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q51:我请他人对我的工作表现给予反馈意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q52:我咨询同事的意见

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q53:当团队需要做一个有意思的项目时，我主动请求加入

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q54:如果有新的技术出现，我是第一个了解并尝试的人之一

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q55:当工作任务不是很多时，我认为这是开始新项目的机会

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q56:即使没有收到额外的薪酬，我也经常承担额外的工作

1.极度不同意

2.不同意

3.不确定

4.同意

5.非常同意

Q57:我尝试通过探索各项工作之间的基本联系，来使我的工作更具挑战性

1.极度不同意

2.不同意

3.不确定

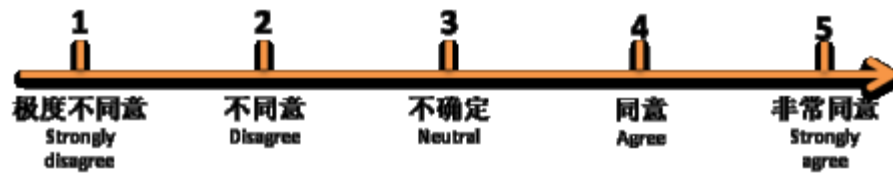
4.同意

5.非常同意



F、以下是关于您和您的主管（经理）在工作内外互动关系等的问题。

请选择您对每一项陈述的同意或不同意程度。



Q58:节假日或者下班后，我会打电话或上门拜访主管，加强感情联络

1.极度不同意 2.不同意 3.不确定 4.同意 5.非常同意

Q59:主管有时会邀请我到他/她家吃饭

1.极度不同意 2.不同意 3.不确定 4.同意 5.非常同意

Q60:逢年过节或是主管的生日，我会去看他/她，并送礼物

1.极度不同意 2.不同意 3.不确定 4.同意 5.非常同意

Q61:我常主动找主管谈心，将我的想法,问题，需要或感受告诉他/她

1.极度不同意 2.不同意 3.不确定 4.同意 5.非常同意

Q62:我很了解和关心主管的家庭和工作情况

1.极度不同意 2.不同意 3.不确定 4.同意 5.非常同意

Q63:当有不同意见时，我一定会站在主管这一边

- 1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

**G、以下是关于您个人的简单信息，仅限于统计使用。**

请选择合适的选项。

**1、您的性别**

男

女

**2、您的年龄（岁）**

---

**3、您的教育背景**

高中及以下（含中专）

大专

本科

研究生及以上

**4、您在目前公司的就职时间（年）**

---

**5、您在目前团队的时间（年）**

---

**6、您目前所在团队的人数规模**

3-10 人

11-20 人

21-30 人

31-50 人

51 人以上

7、您与该团队主管（经理）一起共事的时间（年）

---

8、您的职能所属

技术或研发

生产制造

品质

市场

采购

人事行政财务

其他

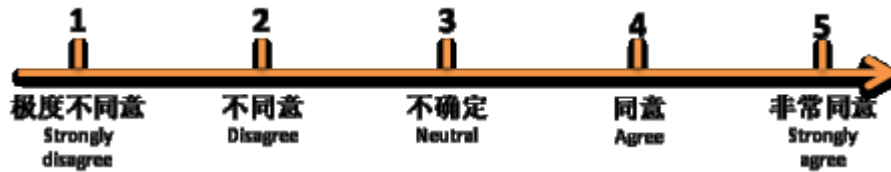
## Employee Questionnaire (Time 2) (Chinese Version)

### 员工问卷 (E-T2)

#### 第一部分:关于我的团队

A、以下是关于您团队的工作状态的问题。

请选择您对每一项陈述的同意或不同意程度。



Q1:我们团队在工作中充满活力

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q2:我们团队对工作充满热情

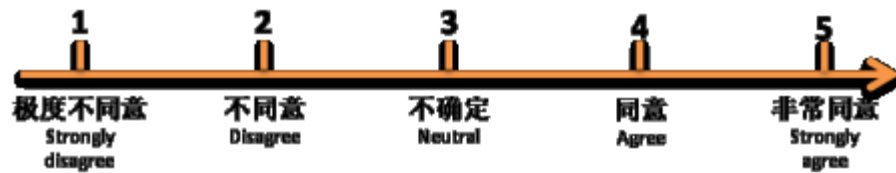
1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q3:我们团队工作专心投入

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

B、以下是关于您团队的工作整体表现的问题。

请选择您对每一项陈述的同意或不同意程度。



Q4:我们团队在工作中表现出色

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q5:我们团队在完成任务方面效率很高

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

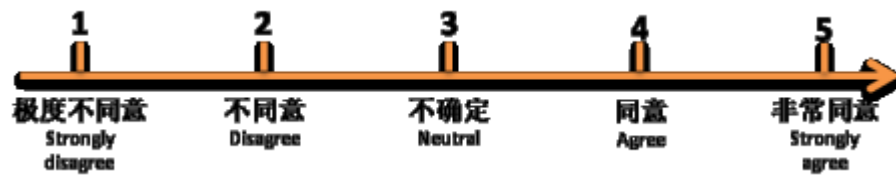
Q6:总的来说，我们团队在工作方面是有成效的

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

## 第二部分:关于我自己

c、以下是关于您个人的工作状态的问题。

请选择您对每一项陈述的同意或不同意程度。



我认为.....

Q7:在工作中，我感到精力充沛

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q8:在工作中，我感觉强壮且精力旺盛

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q9:当早上起床时，我很想去上班

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q10:我对我的工作充满热情

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q11:我的工作激励着我

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q12:我为我所做的工作感到骄傲

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q13:当我紧张地工作时，我感到很快乐

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q14:我沉浸在我的工作中

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

Q15:工作的时候，我会废寝忘食

1.极度不同意      2.不同意      3.不确定      4.同意      5.非常同意

D、以下是关于您个人的工作整体表现的问题。

请选择您对每一项陈述的频次变化的程度。



在工作中.....

Q16:我与团队成员协调工作

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q17:我与团队成员有效沟通

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q18:当被请求或有需要时，我向团队成员提供帮助

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q19:我会有效应对团队中的变化，例如增加新成员

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q20:我学习新技能或承担新角色，以应对团队工作方式的变化

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常



Q21:我建设性地应对团队工作方式的变化

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q22:我为提高团队效率出谋献策

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q23:我为团队表现得更好创新和改进工作方法

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q24:我改进团队做事的方式

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

E、以下是关于您在工作中的心理和精神状态等的问题。

请选择您对每一项陈述的频次变化的程度。



在过去一个月中.....

Q25:我能集中精力做事情

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q26:我由于焦虑而失眠

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q27:我觉得自己是有用的人

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q28:我觉得自己有决断力

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q29:我一直感到精神紧张

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q30:我感到无法克服困难

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q31:我能够享受日常活动

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q32:我能够面对问题

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q33:我感到不高兴和沮丧

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q34:我对自己失去信心

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q35:我觉得自己是没有价值的人

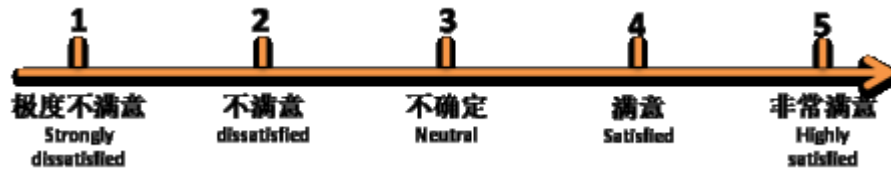
1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

Q36:总的来看我感到适度的愉快

1.不经常                  2.较少                  3.平均水平                  4.较多                  5.很经常

**F、以下是关于您对工作内在和外在状况的评价的问题。**

请选择您对每一项陈述的满意或不满意程度。



Q37: 我的工作的多样化

1. 极度不满意      2. 不满意      3. 不确定      4. 满意      5. 非常满意

Q38: 我的工作挑战性

1. 极度不满意      2. 不满意      3. 不确定      4. 满意      5. 非常满意

Q39: 我在工作中运用技能和能力的机会

1. 极度不满意      2. 不满意      3. 不确定      4. 满意      5. 非常满意

Q40: 我决定如何完成工作的自由度

1. 极度不满意      2. 不满意      3. 不确定      4. 满意      5. 非常满意

Q41: 我的薪资水平 ( 工资和附加福利 )

1. 极度不满意      2. 不满意      3. 不确定      4. 满意      5. 非常满意

Q42: 我的工作保障

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意

Q43: 我的晋升机会

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意

Q44: 我与同事的关系

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意

Q45: 我的工作环境 ( 硬件环境 )

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意

Q46: 同事对我的支持

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意

Q47: 单位对我的工作表现的肯定

1.极度不满意      2.不满意      3.不确定      4.满意      5.非常满意