

“MORE FREE TIME, MORE OVERTIME?”
AN EXAMINATION OF THE OVERTIME PARADOX FOR PART-
TIME EMPLOYEES THROUGH THE LENS OF NON-WORK
TIME

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ABSTRACT

Why do part-time employees with reduced workload and remuneration work longer hours than contracted? Existing research attributes this phenomenon to organisational culture, design of the part-time work, relationship with others at work and one's personality traits. However, there are at least two major gaps in the existing research. Firstly, there is no integrated framework which links these factors influencing part-time employees to work longer hours. This impacts the ability for individuals and companies to systematically apply these findings to improve part-time arrangements. Secondly, most studies to date use self-report methods such as interviews and surveys, which limit the findings to what employees can explicitly recognise at the conscious level.

This dissertation addresses these gaps via two independent but related studies. The first study investigates the relationship between factors influencing part-time employees to work overtime. It uses the principles of grounded theory and queuing theory to analyse findings from interviews with part-time employees and to develop an integrated framework explaining the phenomenon. The framework is predicated on the analogy that work and non-work demands are in distinct "queues" served by the part-time employee who "supplies" the labour. This in turn generates insights

that overtime is driven both by the demands of work and the decision to supply labour. The second study uses the experimental design method to investigate whether having more uncommitted time leads to longer working hours. It also investigates the effect of gain or loss of uncommitted time relative to an expected level and the individual's non-work orientations on overtime. Based on the responses of professionals who were either currently or previously on part-time work arrangements, the relationship between uncommitted time and overtime was found to be significant. This meant that the level of overtime increased as the level of uncommitted time increased. However, it was found that the overtime increased at a decreasing rate whereas the time allocated to family and personal increased at an increasing rate. The effects of non-work orientation and relative gain or loss of uncommitted time were found to be non-significant.

The insights generated from these studies have immediate applications for individuals and companies to systematically design and plan for sustainable work arrangements. More directly, they would apply mainly to women who wish to balance the demands of family and career through part-time work arrangements. However, the insights would also potentially be applicable to address future workforce trends where millennials are expected to hold multiple jobs and where the ageing workforce is expected to be retained through more flexible work arrangements such as part-time work.

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DEDICATION

This work is dedicated to:

My ex-bosses, co-workers and clients, who supported my part-time arrangement.

My husband, who supports all my arrangements.

My parents, who support any of my arrangements.

Chapter 1: Introduction

1.1 Research Motivation

In Singapore, part-time work arrangement is commonly viewed by the government and employers as a lever to allow women to balance the demands of work and family (Towers Perrin, 2001; Yong, 2017). To date, it is also the most common form of flexible work arrangement offered by Singapore companies, based on a bi-annual research effort conducted by the Singapore Ministry of Manpower (Manpower Research and Statistics Department, 2016a). The latest survey involving 3,800 private and public companies shows that 35.3% of the local companies offer part-time work arrangements, up from 20.1% in 2007 (Manpower Research and Statistics Department, 2014, 2016a). This statistic is likely to continue to rise as the Singapore government aims to make flexible work arrangements, including part-time work, more prevalent to address the challenges faced by working women who try to juggle work and family (Yong, 2017). At a global level, the Workplace Flexibility Survey by WorldatWork (Survey on Workplace Flexibility 2013, 2013), shows that the trend continues to be strong, where 81% of the 457 firms surveyed offered part-time work arrangements.

Extant literature reports favourably on the effect of part-time work arrangements on personal outcomes such as employee satisfaction, productivity and ability to achieve work-life balance (Almer & Kaplan, 2000, 2002; Hill, Mårtinson, & Ferris, 2004; McNall, Masuda, & Nicklin, 2009; Wotruba, 1990). However, existing literature also reports that employees on part-time work arrangements are voluntarily working either longer hours or more intensively than what they had

contracted for (Almer & Kaplan, 2000; Kelliher & Anderson, 2009; Lee, MacDermid, Williams, Buck, & Leiba - O'Sullivan, 2002).

This presents an interesting paradox, particularly for employees on a “reduced hours” or “part-time” arrangement. A part-time arrangement is where an employee agrees to devote a reduced amount of time to work at a lower remuneration compared to a full-time equivalent employee (Danielson et al., 2003). Therefore, working more than the contracted amount of time contradicts this agreement.

Existing literature explains that part-time employees work overtime due to a combination of factors arising from “organisation, work design, work relationship and individual characteristics” (Friede, Kossek, Lee, & Macdermid, 2008). The findings to date are largely descriptive in nature, and there is a lack of an integrated conceptual framework which explains the relationship between these seemingly independent reasons for working longer hours. Without a coherent frame, the value of these findings to companies as well as current and prospective part-time employees would be limited. Companies and individuals may be at a loss to choose the relevant levers which can help them to improve existing arrangements or develop new and sustainable arrangements.

Moreover, existing studies use self-report methods such as interviews and surveys to collect data. These methodologies may limit the findings to what the participants are aware of at the conscious level (Schooler, 2002). The participants would not be able to report experiences which they are not explicitly aware of, but which may have an impact on their responses to work longer hours.

1.2 Purpose of the Dissertation and Research Questions

Following from the current gaps in existing research as described above, the purpose of this dissertation is twofold. Firstly, it is to develop an integrated framework using principles of grounded theory (Charmaz, 2006; B. Glaser & Strauss, 1999) and queuing theory (Myskja, 1995) to explain the relationship between the various factors causing part-time employees to work overtime and the mitigating measures which they undertake to manage the extent of overtime.

The second purpose is to investigate if and when the level of discretionary or *uncommitted* non-work time plays a role to influence part-time employees to work longer hours. To address this second research question, I specifically investigate three hypotheses. Firstly, I hypothesise that part-time employees with more uncommitted time during their non-working hours tend to accommodate more work spill overs, resulting in longer working hours. The time distribution of part-time employees differs from that of full-timer employees because the former group has a significantly higher proportion of non-work time. Part of this non-work time is likely to be dedicated to "outside of work commitments" (Conway & Briner, 2002) e.g., looking after children, furthering studies, starting up a side business, etc. After accounting for these commitments and time required for self-care activities, the remaining time is essentially "*uncommitted*". In the context of this dissertation, *uncommitted* non-work time is defined as pockets of non-work time where the demands are more flexible (Palmquist, Phaneuf, & Smith, 2007), and may not need to be fulfilled in the immediate period. Thus, it can be used as "emergency" time to cater to overtime work.

Secondly, I posit that the relative gain or loss of the uncommitted time will affect the relationship between uncommitted time and overtime. This means that the propensity for the individuals to allocate uncommitted time to work depends on whether they have more or less time than they originally expected. Based on the matching principles between mental accounting for money and time (Rajagopal & Rha, 2009; Thaler, 1985), I expect that depending on the relative gain or loss of uncommitted time, the part-time employees would allocate time to either “must-do” or “good-to-have” activities.

Finally, I hypothesise that individuals’ orientations towards non-work domains in their lives will have a direct effect on the overtime, as well as an interaction effect on the relationship between uncommitted time and overtime. According to Feldman (Feldman, 2002; Ng, Sorensen, & Feldman, 2007) the individuals’ propensity to work overtime is affected by their “disposition”. I have chosen to study the specific effect of one’s orientation towards non-work domain areas like family, personal life and community service (Hall, Kossek, Briscoe, Pichler, & Lee, 2013) because overtime work competes with these domains during an individual’s non-work time. As such, I expect that a person’s non-work orientation will affect both the level of overtime as well as the relationship of uncommitted time on overtime.

I addressed these research questions using mixed method research techniques comprising of two independent but related studies.

Study 1 addressed the first research question through a series of 12 interviews with present and past part-time employees using semi-structured interview questions. The research question was broken down further as follows:

1. Why do part-time employees work longer hours than they had contracted for?
2. What are the mechanisms which they have put in place to protect against the pressures of working overtime?
3. How does working longer hours affect employee and organisational outcomes like job performance, organisational commitment, job satisfaction, trust in management and turnover intentions?

The findings were analysed based on the grounded theory methods (Charmaz, 2006; B. Glaser & Strauss, 1999) followed by the development of an integrated framework adapted from queuing theory originally developed by Danish scientist, Agner Krarup Erlang (Myskja, 1995). The findings from this study also served as input to develop the questionnaire instrument used in Study 2.

Study 2 focused on addressing whether the level of uncommitted time influenced the part-time employee to work longer hours. The corresponding research questions were addressed through a web-based survey experiment. The specific research questions are:

1. Do part-time employees incur more overtime if they have more uncommitted time?
2. How does the relative gain or loss of uncommitted time affect the extent to which the individual works overtime?
3. How does an individual's non-work orientations affect the extent to which they work overtime?

31 present and past part-time employees responded to a four-part online questionnaire where they were asked to make decisions to allocate uncommitted time in simulated scenarios.

1.3 Contributions of Research

1.3.1 Imagery of Demand and Supply

The first contribution is the discovery of a new imagery which sets a new way of thinking about the issue of how work and non-work demands can be managed. Existing literature refers to the work versus life demands in various ways. The most commonly used metaphor is that of work-life "balance" (Caproni, 2004; Crosby, 1993; Hall, 1990; Kofodimos, 1990; Lobel, 1991). The "balance" imagery connotes that "work" and "life" are distinct constructs which enrich and conflict with each other. A related metaphor which connotes enrichment is the "work-life integration" imagery which suggests that the demands of work and life need each other to thrive (Thompson & Bunderson, 2001; Friedman, 2014; Reid & Ramarajan, 2016). Accordingly, the research which follows revolves around understanding why enrichment and conflicts occur between these constructs, the sources of these interactions, impact of such interactions on business and employee outcomes, and finally, strategies to increase the enrichment and minimise the conflicts.

In this dissertation, I use the analogy of work and non-work demands being in distinct "queues" served by the part-time employee. The corresponding imagery is that of "demand" and "supply". "Demand" refers to work and non-work demands and "supply" refers to the factors which influence the individual's response to allocate time to them. Unlike the work-life balance metaphor, the "queue" analogy

does not focus on the interactions between the work and non-work domains. Instead, it focuses on the factors which drive the demand for the individual's time in each domain and the factors which influence an individual's response to supply his or her time. This new paradigm complements the work-life balance literature because it focuses specifically on time allocation between the work and non-work domains, whereas work-life balance extends beyond time to other resources like skills, knowledge and emotions (ten Brummelhuis & Bakker, 2012).

1.3.2 Integrated Framework of Factors Influencing Overtime

The second key contribution is the development of a robust grounded theory which explains the linkages between various factors influencing part-time employees working overtime. Current findings are largely descriptive in nature and where theories exist to explain the phenomenon, they are relating to specific elements of the influencing factors. When these standalone findings are applied to improve or optimise an individual's part-time arrangement, the absence of insights on the relationship would pose a challenge. The individuals would not know the implications of manipulating certain factors. Neither would they know the extent to which manipulating the factor(s) would change the outcome. In short, the lack of a relationship between these variables does not allow for the outcome to be predicted.

In Study 1, I have addressed this gap by adapting queuing theory to develop a grounded theory which provides insights into how the various factors interact with each other. These insights can provide part-time employees and companies with a

holistic framework through which they can systematically consider and plan for sustainable work arrangements.

1.3.3 Discovery of New Factor Influencing Overtime Work

The third contribution is the discovery of a new factor influencing part-time employees' propensity to work overtime. Existing literature generally uses self-reporting methods such as semi-structured interviews and surveys to find the reasons part-time employees put in longer hours than they have contracted for. As such, the factors that emerge are most likely limited to the experiences which the subjects can explicitly recognise (Schooler, 2002). It implies that if there are factors which are outside the realm of the individual's conscious recognition, then these would unlikely be surfaced through such research.

In Study 2, I have used the experimental design methodology to empirically prove that a higher level of uncommitted time has a direct and positive influence on a person's propensity to work overtime. This finding is significant because it reveals an otherwise obscure lever for the individuals to better manage their working hours. It first provides awareness to the individuals that having more uncommitted time may lead them to work longer hours. Such awareness then allows the individuals to choose whether to act on this specific lever to better manage their working hours through planning their uncommitted time.

1.4 Organisation of the Dissertation

This dissertation is organised into four chapters, a bibliography and appendices as follows:

- Chapter 1: Introduction
- Chapter 2: The Overtime Paradox Through the Lens of Queuing Theory Using a Grounded Theory Approach
- Chapter 3: More Free Time, More Overtime: The Effects of Uncommitted Time on Working Overtime
- Chapter 4: Conclusion

This first chapter provides introductory information for this dissertation, including the research questions, methods, contribution, as well as a brief overview of existing literature on part-time employees working long hours. Chapter 2 describes how I have used the grounded theory principles to develop a substantive theory to explain why part-time employees work overtime. Chapter 3 studies the relationship between uncommitted time and overtime as well as the direct and moderating effects of non-work orientation and relative gain or loss of uncommitted time. The corresponding research design, analysis, results, limitations and direction for future research will also be discussed. The final chapter discusses the implications and recommendations for future research.

1.5 Review of Literature

In this section, I will provide a review of existing literature on the phenomenon of part-time employees working overtime. This review is intended to provide a common ground for the reader to understand the context of Studies 1 and 2.

1.5.1 Definition of Part-Time Work Arrangement

Part-time work refers to the arrangement where the individual works a lesser number of hours relative to a full-time role (Danielson et al., 2003; Feldman, 1990). Based on the typology of part-time work arrangements by Feldman (1990), there are two major categories of part-time roles. The first one is where employees are permanent staff of the organisation and the job is their primary source of income. For this category of part-time employees, the workload, salary and benefits are typically prorated based on that of an equivalent full-time employee. The second group of employee is typically hired into the organisation on a temporary basis to address periods of fluctuating workload or manpower shortage (Feldman, 1990). Existing research has shown that the underlying motivations between temporary and permanent staff are different, which in turn affect their behaviour and employee outcomes (McDonald & Makin, 2000). This implies that the two groups of employee may respond to the pressures of working overtime differently. As such, this dissertation only focuses on permanent employees.

1.5.2 Reasons for Working Overtime in a Part-Time Work Arrangement

Extant literature reflects the phenomenon that part-time employees voluntarily work longer hours than stipulated in their contract. In a study of Certified Public Accountants (CPAs), interviewees reported that “people on flexible time at their firm are still expected to do the work of a full-time employee” (Almer & Kaplan, p. 74). In the same study, only 65% of the respondents reported that their job responsibilities decreased. In another study undertaken by Lee et al. (2002) on executives and managerial employees, it was found that 69% of the professionals and 11% of the managers worked longer hours than they were contracted for. In yet another study undertaken by Kelliher & Anderson (2009), respondents also reported that they worked longer or more intensely under a reduced work hour and remote arrangement.

Putnam, Myers, & Gailliard (2014) calls this phenomenon a “paradox”. The original intent of a flexible arrangement is to enhance greater work-life balance. However, it seems that such arrangements are causing employees to work harder than they had explicitly agreed to. What are the explanations to this seemingly paradoxical phenomenon?

The explanations provided by extant literature can be organised into four key categories as described in a research on success factors for reduced work-load arrangements (Friede et al., 2008). These four categories are: organisational culture, work design, work relationships and individual characteristics.

The first category relates to the professional and/or organisational culture that the individual works in. In a study of 87 cases of part-time arrangements, Lee et al. (2000) developed three distinct organisational paradigms of reduced workload.

Organisations with the “accommodation” paradigm did not have a culture that supported part-time arrangements. Such organisations may continue to expect the employee to deliver the same results even though the employee is on a reduced workload arrangement. Another example manifests in the law profession. In the Part-Time Paradox (Epstein, Seron, Oglensky, & Saute, 2014), the lawyers interviewed attributed the phenomenon, amongst many other reasons, to the professional culture. Interviewees believed that the law profession is sceptical about part-time arrangement and fellow workers often questioned the suitability of the arrangement.

The second factor relates to the work design of the part-time arrangement. This means that the setup or demands of the work may not suit a reduced workload arrangement where predictability of schedule is important (Epstein et al., 2014). This factor was echoed in the Survey for Workplace Flexibility (*Survey on Workplace Flexibility 2013*, 2013), where one of the main obstacle reported by 58% of the respondents was the lack of jobs that are conducive to part-time arrangements. In another study by Lee et al. (2002), professionals and managers reported that jobs which were difficult to complete within a defined time frame were not suitable for part-time arrangements.

The third factor relates to work relationships between the part-time employee and co-workers, superiors and customers. In a study around work-life balance involving 30 part-time professionals in United States and Canada, many participants reported that they felt that they were not respected by their colleagues nor their organisation. The perceived discrimination drove them to work longer hours to demonstrate commitment to their work (Corwin, Lawrence, & Frost, 2001). Another example is offered by Kelliher and Anderson (2009), who posited that

employees worked longer hours to either return gratitude to the company for granting them this alternative work arrangement or to “compensate” co-workers for the inconvenience suffered during their absence. They further suggested that this is predicated upon the social exchange theory (Blau, 1964; Homans, 1958; Molm, Peterson, & Takahashi, 1999) where one tenet of this theory states that obligations are generated through a “series of transactions” between parties who are mutually dependent upon each other (Emerson, 1976). In this context, such “obligations” towards the company and co-workers are generated when the employees take up the flexible work arrangement.

The final factor relates to the individual characteristics of the part-time employee. In a conceptual paper on overtime work, Feldman (2002) posited that individual factors like “demographic status, family status, personality and outside interests” played a significant role in causing a manager to work long hours. Specifically, he suggested individuals who are high self-monitors and those who are high on conscientiousness and achievement motivation, to be more likely to work longer hours. Another individual characteristic which may lead to overtime work is workaholism. Workaholics are individuals who enjoy working to the extent of addiction, and they devote excessive personal time to work (Ng et al., 2007). In a self-reported study by Burke (2003), it was found that part-time employees, like their full-time colleagues, exhibited specific components of workaholism.

1.5.3 Uncommitted Time and Overtime – A Preview

The studies cited above use self-report methods such as interviews and surveys (Almer, Cohen, & Single, 2003; Almer & Kaplan, 2000; Corwin et al., 2001; Epstein et al., 2014; Friede et al., 2008; Kelliher & Anderson, 2009; Lee, MacDermid, & Buck, 2000; Lee et al., 2002). These methodologies may limit the findings to what the participants are explicitly aware of. It also implies that there may be factors which are not yet identified because the study participants are not aware of their influence.

In Study 2, I used the experimental design method to provide empirical evidence that the part-time employees' level of uncommitted time influences them to work longer hours. As briefly mentioned earlier, uncommitted time refers to pockets of non-work time where the demands are typically flexible and may not need to be fulfilled in the immediate period. This factor has not been identified in existing research as a factor influencing part-time employees to work longer hours.

Uncommitted time is a likely influence based on “clues” from research in the fields of work and time allocation. Firstly, based on Parkinson's law, work fills the available time (Parkinson, 1955), so more available time during non-work hours may translate to more time spent on work. Secondly, the nature of modern work is increasingly fluid, and non-work time may be used as “emergency” time (O'Carroll, 2015) to cater to work. Since the demands for uncommitted time is more flexible and may be re-allocated to future time periods if required, it becomes a good candidate for work to encroach upon.

In Chapter 3, I will establish linkages between these existing literatures and the specific hypotheses on the influence of uncommitted time on overtime and the moderators of this relationship.

1.5.4 Responses to Manage Overtime Work

In view of the pressures from outside and within, what do part-time employees do to keep their work hours in check?

1.5.4.1 Managing Work Relationships and Self-Response

The most common protection strategies in existing literature are on managing work relationships with co-workers and managing of one's own reactions. For example, through a study on Canadian and American part-time employees, Corwin et al. (2001) found that one of the key strategies to a successful part-time arrangement was to manage people's perceptions about the value and availability of the employee. Respondents from the same study also reported that they proactively set up non-work commitments which would take them physically and mentally away from work, so that they can disengage from work more easily.

1.5.4.2 Organisational Culture and Work Design

There are fewer reported strategies which have been used to change the organisational and work design aspects, likely because they are less flexible in nature, and very often not within the control of the part-time employee. However, the literature does suggest what organisational and work design factors would

enable the success of part-time arrangements. For example, Lee et al. (2000; 2002) suggested that organisations that have “employee-centred values” and where “work-life policies or programs” are widely publicised, would be conducive for part-time work arrangements. For work design, existing studies have shown that work which allows for more flexibility, autonomy or where there is a longer lead time to deliver the solution to clients (Epstein et al., 2014; Lee et al., 2002) would be more suited for part-time work arrangements.

1.5.4.3 Use of Structured Planning to Manage Overtime

Another common strategy to manage overtime is to apply structured planning techniques to both work and non-work commitments. There are many manifestations of such techniques found in existing literature like goal setting, prioritisation, listing, scheduling and properly organizing information (Claessens, Van Eerde, Rutte, & Roe, 2007; Macan, 1994). These techniques generally require the individual to plan work and non-work activities ahead of time, and then implement them per the plan. For example, an interviewee reported that she coped with the pressure of shorter working hours by “being structured” in planning and executing high priority tasks instead of spending time on lower priority items (Kelliher & Anderson, 2009). Structured planning can also convert uncommitted time to committed time when the individuals proactively plan their non-work time. In turn, the part-time employees will have less uncommitted time which they can cater to work. For example, interviewees reported that they intentionally scheduled routine non-work activities so that they can clearly compartmentalise between home and work (Corwin et al., 2001). This notion of “compartmentalisation” is consistent

with the concept of “segmenting” which is commonly discussed in work-home boundary negotiations. Individuals who are “segmenters” prefer to separate the domains of work and home by maintaining boundaries through various means (Kreiner, 2006; Nippert-Eng, 2008).

1.5.5 Impact on Employee Outcomes

Despite working longer hours, extant literature reports favourably on various facets of employee outcomes like job performance, organisational commitment, job satisfaction and turnover intention.

In a 2004 study of 529 IBM professional women who undertook part-time employment, positive employee outcomes were generally reported. The respondents reported that they enjoyed "greater work-family success, childcare satisfaction, family success and lesser family conflict" compared to their full-time colleagues (Hill et al., 2004). In addition to enjoying higher employee satisfaction, part-time employees were also reported to deliver better job performance. In a study undertaken on direct selling sales-people (Wotruba, 1990), it was found that part-time sales staff who did not have external sources of income performed better than full-time sales staff.

Even in studies where part-time employees reported longer working hours, positive outcomes were observed. In a study on certified public accountants (CPAs), it was reported that more part-time employees were willing to stay on within the company beyond the next three years, compared to full timers (Almer & Kaplan, 2000). In another study involving 37 UK employees on flexi-work arrangements, interviewees who on the one hand reported excessive workload, in the same breath

spoke about becoming more committed to the organisation because they were given access to alternative work arrangements (Kelliher & Anderson, 2009).

However, it is not all positive for these part-time employees. Working longer hours is only one of the many pressures and discriminations that part-time employees need to face and contend with daily. In the IBM study mentioned earlier, respondents reported that they perceived “less career opportunity and work success” compared to their full-time peers. Part-time lawyers also reported that their “part-time status” is often synonymous with slow career progression and being marginalised by colleagues and superiors who considered them “neither fish nor fowl” (Epstein et al., 2014).

Extant literature implies that the paradox faced by part-time employees is not limited to working longer hours. Despite working longer hours than they have signed up for, they faced discrimination from co-workers and the disadvantages of slower career progression.

1.6 Summary of Chapter

Existing literature reports that part-time employees work overtime for various factors relating to organisation, work design, work relationship and individual characteristics. In this dissertation, I take an alternative perspective to examine how uncommitted non-work time is likely to play a part in influencing overtime. Part-time employees have responded to the pressures to work longer hours by devising various responses to keep their work hours in check. In general, employee outcomes of part-time employees are positive despite having to work

longer hours than expected, but they face the disadvantages of reduced career opportunities and discrimination.

Existing research which discusses the phenomenon of part-time employees working overtime has revealed two gaps. Firstly, there is no integrated framework that links the factors which are reported to influence these employees to work longer hours. As a result, individuals and companies may find it difficult to apply these findings systematically to improve the part-time arrangements. Secondly, the studies to date on this topic use self-report methods such as interviews and surveys. These methodologies may limit the findings to what such employees can explicitly recognise at the conscious level. The implication is that there may be other factors influencing their propensity to work longer hours, which have not yet been identified.

This dissertation addresses these gaps via two independent but related studies. The first study investigates the relationship between various factors causing part-time employees to work overtime and the mitigating measures which they undertake to manage the extent of overtime. Study 1 uses the principles of grounded theory to analyse findings from 12 interviews and to develop an integrated framework which explains why part-time employees put in longer hours. Study 2 uses the experimental design method to investigate the influence of uncommitted time on working hours. Uncommitted time is a factor which has not yet been identified to influence the propensity of part-time employees to work longer hours.

The insights from this dissertation can enable individuals and companies to systematically structure and plan for a sustainable part-time arrangement. It also contributes to the body of knowledge on part-time employment and flexible work

arrangements by providing a new way of looking at the co-existence of work and life, which has traditionally been described using a “balance” or “integration” metaphor.

In the next two chapters, I will present the findings from a series of qualitative interviews and a survey experiment to provide further insights into this part-time but overtime paradox.

2 Chapter 2: The Overtime Paradox Through the Lens of Queuing Theory Using a Grounded Theory Approach

2.1 Introduction

Existing literature on the phenomenon of why part-time employees work longer than contracted hours are largely descriptive in nature. There is a lack of an integrated conceptual framework which explains the relationship between various seemingly independent reasons for why employees who are under an explicit contract to work a reduced number of hours for lower pay, wind up working longer hours. Without a coherent framework, the value of these findings to companies, as well as to current and prospective part-time employees is limited.

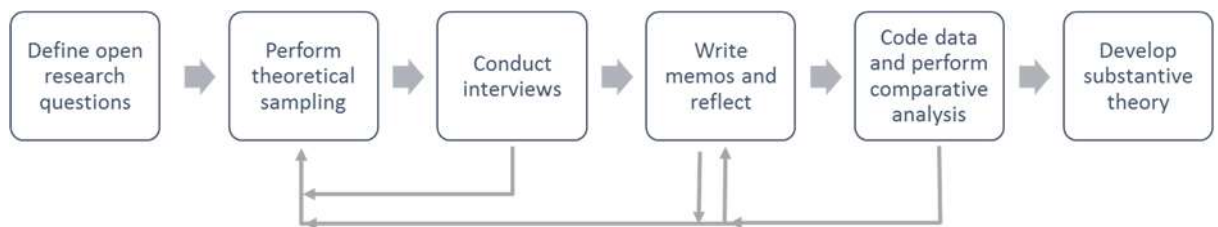
To address this gap, I interviewed 12 present and past part-time employees to find out (1) why do part-time employees work longer hours than they had contracted for (2) what are the mechanisms which they have put in place to protect against the pressures of working overtime (3) how does working longer hours affect employee outcomes like job satisfaction and organisational commitment. The findings were analysed based on the grounded theory methods (Charmaz, 2006; B. Glaser & Strauss, 1999) followed by the development of an integrated framework adapted from queuing theory originally developed by Danish scientist Agner Krarup Erlang (Myskja, 1995). The findings from this study also served as input to develop the survey instrument employed in Study 2.

2.2 Methods

In this study, I have used the principles of grounded theory as the primary methodology. The theory of analogical mapping was used only at the last step of theory development. I will first provide some background on these two methods followed by an explanation of how I have used them in the research.

Grounded theory is a qualitative research method which is used to generate a theory inductively through “progressive identification and integration of categories from data” (Willig, 2013, p. 70). In this section, I will explain each step that I have taken to conduct this study in accordance with the principles of grounded theory. The theory of analogical mapping will be explained in the final step to develop the conceptual model. These steps are adapted from Sbaraini et al. (2011) and Charmaz (2006). Figure 1 below outlines the steps that I have taken.

Figure 1: Steps Taken to Conduct Study 1



2.2.1 Define Open Research Questions

According to Sbaraini et al. (2011), researchers utilising the grounded theory methodology approach the research questions with little pre-defined notion of what “drives the actions” of the participants. As such, I have taken great caution to ask open-ended questions in the semi-structured interviews. The questions did not pre-suppose that the part-time employees worked overtime, as I wanted to

capture the context in which overtime happened and did not happen. In addition, grounded research is also interested in the “social processes or actions” (Sbaraini et al., 2011) around the phenomenon. As such, I attempted to gain an in-depth understanding of the context of their work. In this process, special attention was paid to what subjects did at work, their motivations for a part-time work arrangement, whether they found that their work was expanding beyond their employment contract, whether they had strategies or mechanisms for dealing with the encroachment into their non-work time, and their level of employment satisfaction.

My initial interview questions were:

- Why and when did you start to pursue a part-time work arrangement? Were you in the equivalent full-time role before you transited to the part-time role?
- Please describe the setup of the part-time work arrangement e.g., fixed work days, flexible work days, fixed remuneration, commission based, etc.
- Please describe the nature of your work in the part-time work arrangement e.g., nature of company, role, scope of work, requirement to interact with colleagues and/or business partners, how the office managed during your non-work days, etc.
- Do you need to work during your non-work days? If so, how frequently? How do you typically fit work into your non-work days? Do you feel the need to reduce the overtime hours? What do you do to protect your non-work time from being encroached upon by work?

Subsequently, two more questions were added to validate the research question of whether overtime can be reduced by structured planning techniques, and whether the reduction is partially mediated by uncommitted time.

The two interviewees involved were provided a background about the hypothesis on the reduction of overtime via managing uncommitted time. They were then asked specific questions around the use of structured planning as a lever to do so. The additional interview questions were:

- Have you used similar time management techniques to manage your overtime?
- If yes, did it work or did it not work? Do you have any thoughts about why it worked or did not work? Any thoughts about the conditions under which, or the kind of person for which, it would work or would not work? These could be external conditions or internal conditions (e.g., personality traits or values).
- If you have not used such a technique, do you think it will work/would have worked for your part-time work arrangement? Why yes, why no? Under what conditions or for what kind of person might it work or not. Would you be interested in trying it out yourself if the opportunity arises? Why? Why not?

Both sets of interview questions can be found in Appendix 2.1 and Appendix 2.2 at the end of this report.

The above extension of Study 1 is not aligned to the principles of grounded theory as the questions were around one specific technique of managing overtime, and those interviewed were selected because they were already working significant

overtime. However, this is unlikely to affect the overall validity of the study because the deviation only applied to a small part of the research.

2.2.2 Theoretical Sampling

The next step is to undertake theoretical sampling, which is defined as “the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyses his data and decides what data to collect next and where to find them” (B. Glaser & Strauss, 1999). Simply speaking, it is thinking about what data I would need and where I would find them. I first determined the attributes that I was looking for in the interviewees, primarily based on the findings reported in literature on part-time employees and overtime work (Almer & Kaplan, 2000; Epstein et al., 2014; Feldman, 2002; Kelliher & Anderson, 2009). According to the literature, these attributes were likely to influence a part-time employee’s propensity to work overtime. Subsequently, more attributes were added based on insights obtained from interviews and discussion with my project supervisor. The only deviation from this approach occurred for the last two interviewees who were recruited for validating the hypotheses on structured planning. They were identified on the sole criteria that they were working significant overtime during their part-time work arrangements.

The list of attributes used to identify suitable interviewees is summarised in Table 1 on the following page:

Table 1: Different Attributes in Interview Candidates

<u>Attribute</u>	<u>Attribute Values</u>
Role	Part-Time Employee Management Representative
Gender	Male Female
Reason for part-time	Family related Pursuit of alternative interests Change of life goals
Nature of part-time	Lesser hours each day within a week Lesser number of full days each week Flexible working hours as long it is within the contractually agreed boundaries
Location of part-time	Fixed working location at office (or any other location) Flexible working location depending on need
Amount of part-time	<= 50% (approximately 2 days per week) >50% (more than 2 days per week)
Whether employee transited from full time employment or immediately entered part-time	Transited from full-time equivalent position Hired into organisation as a part-time employee
Type of company/business	Private sector - corporate function/external service provider Public sector Non-corporate function e.g., education
Nature of function	External client facing e.g., consulting Internal client facing, e.g., HR
Seniority in company	Senior management Middle management No supervisory responsibilities
Types of remuneration	Fixed pay Commission pay
Nature of contract	Permanent staff Term contract staff

12 interviews were conducted and all interviewees were recruited via personal contacts. 10 of them were either current or past part-time employees and another two were a human resource manager and business unit leader.

To obtain a diverse profile of part-time employees, I recruited interviewees from different professions who hold positions across the organisational hierarchy. I also recruited interviewees who are on both fixed and commission-based remuneration schemes, as well as both permanent and contract positions. However,

the typical profile of the interviewee is that of a woman permanent employee on a fixed remuneration scheme, who has undertaken a part-time work arrangement to care for young children. Most interviewees (80%) work overtime occasionally or frequently. Tables 2 - 5 below show an analysis of the profile of the interviewees. A summary of the profiles of all the interviewees can be found in Appendix 1 at the end of the report.

Table 2: Role of Interviewees in Study

Role in Study	N	%
Role		
Part-Time Employee	10	83%
Management	2	17%
Total	12	100%

Table 3: Demographic Variables of All Interviewees

Demographic Variables	N	%
Age		
30	2	17%
40	8	67%
50	2	17%
Total	12	100%
Gender		
Female	10	83%
Male	2	17%
Total	12	100%

Table 4: Employment Variables of All Interviewees

Employment Variables	N	%
Current Employment Status		
Part-Time Employee	4	33%
Full-Time Employee	6	50%
Self-Employed	1	8%
Unemployed	1	8%
Total	12	100%
Profession		
Communications Specialist	1	8%
Consultant	5	42%
Head Hunter	1	8%
HR Professional	2	17%

Lecturer	1	8%
Legal Professional	1	8%
Project Manager	1	8%
Total	12	100%
Industry		
Banking	2	15%
Consulting	6	46%
Fund Management	1	8%
Public Service	2	15%
Recruitment	1	8%
Tertiary Education	1	8%
Total	13*	100%
Function		
Corporate Function	4	31%
External Service Provider	6	46%
Public Service Provider	2	15%
Teaching	1	8%
Total	13*	100%
Seniority		
Middle Mgmt	5	42%
No Supervisory Responsibilities	4	33%
Senior Mgmt	3	25%
Total	12	100%

*1 interviewee was in multiple industries and functions

Table 5: Part-Time Work Arrangement (Part-Time Interviewees Only)

Part-Time Work Arrangement	N	%
Level of Work Commitment		
50%	5	50%
60%	1	10%
80%	2	20%
Varying	2	20%
Total	10	100%
Work Arrangement		
Flexible. Fixed percentage each month	2	20%
Reduced number of days per week	2	20%
Work daily. Fixed part-time hours each day	6	60%
Total	10	100%
Location of Work		
Flexible, depending on needs	4	40%
Primarily from office	5	50%
Both	1	10%
Total	10	100%
Reason for Part-Time Arrangement		
Child care	6	60%

Elder care	1	10%
Support spouse relocation	1	10%
Start business	1	10%
Change in life goals	1	10%
Total	10	100%
Work Arrangement Prior to Part-Time Arrangement		
Transited from Full-Time in Same Organisation	7	70%
Hired into Organisation as Part-Time Employee	2	20%
Both	1	10%
Total	10	100%
Work Overtime		
Yes	8	80%
No	2	20%
Total	10	100%
Nature of Remuneration		
Fixed	9	90%
Fixed + Commission	1	10%
Total	10	100%
Nature of Employment Contract		
Permanent Staff	8	80%
Contract Staff	1	10%
Both	1	10%
Total	10	100%

Of the 12 interviews, 11 were conducted face-to-face at mutually agreed upon locations. Only one interviewee responded to the questions via e-mail. Before the interview, I sent a copy of the Participants' Information Sheet and Consent Form to them so that they were informed of what would happen during the interview. A copy of the form is provided in Appendices 2.1 and 2.2. At the start of the meeting, I would explain to the details of the interview to the interviewees, sought permission to tape the interview and then proceeded to sign the consent form.

The interview was conducted in a semi-structured manner based on the initial questions provided to them. After the interview, the transcript was sent to the interviewee, who was then requested to respond within a certain time frame if they had any comments or corrections.

After the conduct of each interview, I would listen to the recordings and took notes of my thoughts about the interview. New points which were relevant were incorporated into subsequent sessions.

2.2.3 Coding and Comparative Analysis

The next step in a grounded theory study is to code the data. These codes are progressively organised into concepts and related categories through a process of constant comparison (Glaser & Strauss, 1999; Sehriban, 2012) until a theory develops. I adopted the coding principles by Charmaz (2006) which involves three steps – initial, focused and theoretical coding. Initial coding refers to the distillation of themes from the data by looking out for the actions and the corresponding context. The codes should “stay close” to the data to avoid the problem of jumping the gun to formulate concepts. Focused coding is combining codes of similar natures into categories. Finally, theoretical coding reflects “how the substantive codes may relate to each other as hypotheses to be integrated into a theory” (Charmaz, 2006; B. G. Glaser, 1978, p. 55). In other words, at this third stage, the substantive codes which have been developed in the first two steps are synthesised into categories based on the theory which has emerged from the data.

After the initial coding, I synthesised the codes into four major themes. I then reflected on the possible relationships between these substantive categories and noted the theme of supply and demand emerging from the data. In particular, I noticed that “demand” of a part-time employee’s service often had to “wait” for the corresponding “supply” to be available. Hence, I decided that queuing theory would be a suitable analogy to represent the relationships between these categories,

because this theory is commonly used to determine the optimal waiting time by the subject (customer, traffic flow, network data packets, etc.) within a set of constraints.

After identifying the target elements of the queuing theory analogy, I then undertook “theoretical coding” (Charmaz, 2006) around the categories already identified. Throughout the stages of coding, I undertook comparisons between interviews to identify similarities and differences in the concepts. Table 6 below illustrates how the coding evolved from initial coding to theoretical coding.

Table 6: Sample Coding

Raw Data	Initial Coding	Focused Coding	Theoretical Coding
<p>"workplan is at the beginning of the year...my job scope is defined, so I just have to deliver my stuff...so if the seminar is in the afternoon, as long as I don't sign up for it...the interdependency between colleagues is not very high"</p> <p>- <i>Outreach and communications officer on how the co-workers manage in her absence</i></p>	<p>Work suited for part-time arrangement</p> <p>Low interdependency</p> <p>Long lead time</p>	<p>Deterministic rate of arrival</p>	<p>Pattern of the arrival rate of work</p>
<p>"I would communicate often to the managing directors in terms of the agreed work days...but it will fall apart whenever a business opportunity arises and resources would be pulled back for support"</p> <p>- <i>Management consultant on how he tries to protect his non-work time</i></p>	<p>Failure to protect non-work time</p> <p>Multiple sources of work</p>	<p>High variability in arrival of work</p>	
<p>"In consulting, there are peaks and troughs in workload; this is the nature of this line of work."</p> <p>- <i>Consulting project manager responding to a question on if she consistently incurs overtime</i></p>	<p>Seasonal nature of workload</p> <p>Fluctuating nature of work</p>	<p>Variability in arrival of work</p>	
<p>"For external client fronting roles, there are peaks and troughs in work schedule. As such, the part-time schedule may work for certain period, but doesn't work for some."</p> <p>- <i>HR manager commenting about the overtime situation for client fronting roles</i></p>	<p>Seasonal nature of workload</p> <p>Difference between client and non-client fronting role</p>	<p>Variability in arrival of work</p>	

2.2.4 Reflections and Memo Writing

The role of memo writing in grounded theory is to capture ideas coming out from the data as soon as possible, as “ideas are fragile” (Simmons, 2014). In this study, I jotted down notes after each interview, in particular new ideas which had not been considered before and needed to be verified with subsequent interviewees, or which required recruitment of additional interviewees of a different profile. I also took notes of similarities and differences between interviews during the process of transcription.

Insights from the memo writing process had been instrumental in helping me to uncover the relationship between the data and eventually arrive at the conceptual model of why part-time employees work overtime.

Table 7 below is an example of a memo that I have written after an interview.

Table 7: Sample Interview Memo

Interview Memo
Career progression
What has emerged strongly are her thoughts on the career progression for a part-time employee. I find it a refreshing perspective that she doesn't think that the company should provide any further “structure” to enable progression, but instead there should be mentors, role models for part-time employees, to demonstrate how to progress, instead of totally “step off”.
The theme of career progression has emerged in a lot of earlier interviews for long term part-time employees even though the topic is unsolicited. Working overtime does not seem to be an issue, but the lack of career progression is. Maybe for an organisation to be considered progressive in the practice of offering part-time roles, is to have the role designed to allow for part-time employees to be able to progress in a manner that seems equitable to the other full-timers.
Adjustment
She didn't have immediate measures to stop herself from working overtime; but she knew better how much to take on. This is tackling the problem at the source, and therefore in line with the queuing theory frame where adjustment is made at the source of work. Design of work is a lever.
She also talked about creating an environment where people became self-sufficient - so this is also about adjusting the work at the source.

Overtime is not viewed as a problem that needs to be solved

It is interesting that she mentioned that she intentionally did not want to commit her time to fixed purpose because she wanted to be available for her clients. It is a conscious decision. So, while “structured planning” may help to reduce working overtime, it’s not something that everyone would want to take up.

I think only a minority would want to “count the hours”. If she has achieved her goal of making time for family, she would be happy to spend time at work. It also implies that people would only want to “solve” the overtime issue if they considered it a problem in the first place.

Is it possible that people don't mind working overtime, if their primary goal has been achieved?

2.2.5 Theory Development

The second theory that I have used is the theory of analogical mapping by Dedre Gentner (1983). This theory describes how a domain of knowledge to be explained can be methodically mapped to a target analogy (Aubusson, 2002). In this section, I shall explain how I have used this theory to develop the conceptual model.

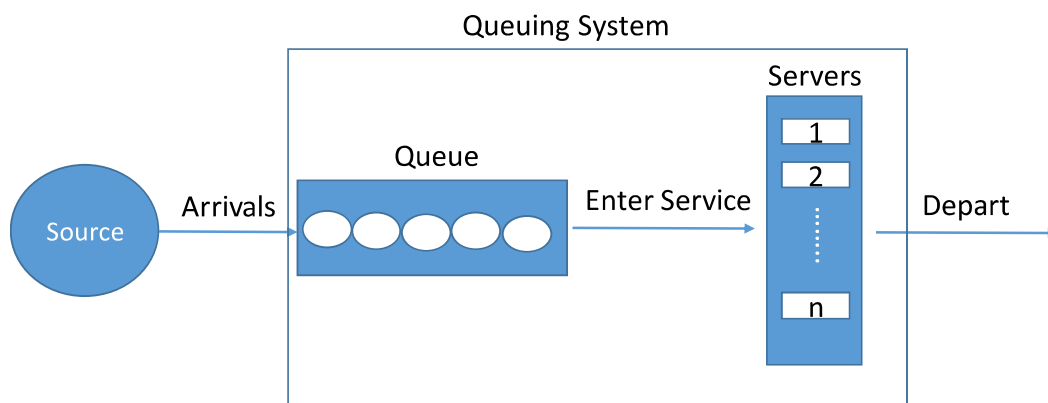
As described above, queuing theory was used as a frame to establish relationships between the categories of substantive codes because there was an “extensive relational correspondence” (Aubusson, 2002) between the part-time employee overtime phenomenon and the theory.

Based on the methodology outlined by Aubusson (2002), the mapping between the source phenomenon and the target analogy takes place in two stages – initial mapping and detailed mapping.

2.2.5.1 Initial Mapping

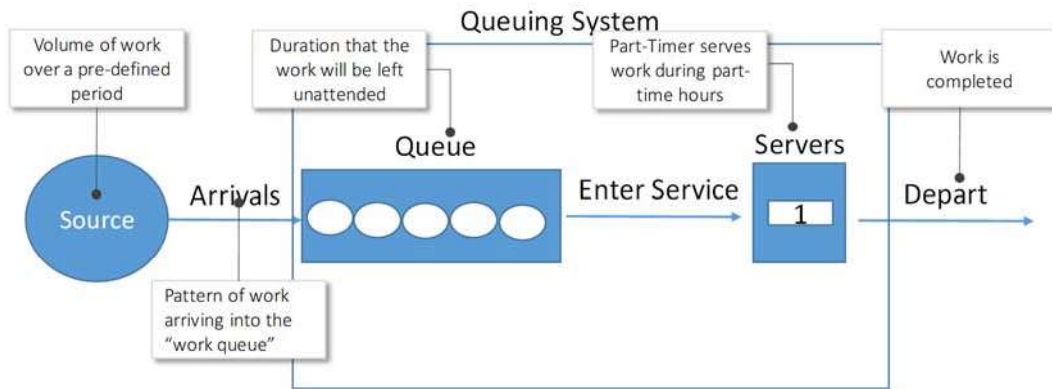
In the initial mapping, I first identified the key characteristics which are present in a queuing system. A queuing system is typically characterised by units arriving at the service facility and being served by one or more servers, after which they will depart from the queuing system. The time that units arrive and the duration that the service facility takes to serve may not be predicted precisely (Cooper, 1981) . Figure 2 below shows a simple model of a queuing system.

Figure 2: Simple Model of Queuing System (Jensen, 2004)



These elements in a queuing system can be easily mapped to the context of a part-time arrangement. Firstly, work “arrives” from a source, into the lap of the part-time employee who assumes the role of the server. The work can arrive in a deterministic or random pattern. Secondly, the work enters a “work queue” and waits for the part-time employee to act upon it based on his or her available capacity. Finally, when the work is completed, it “leaves” the hands of the employee. This mapping is outlined in Figure 3 below.

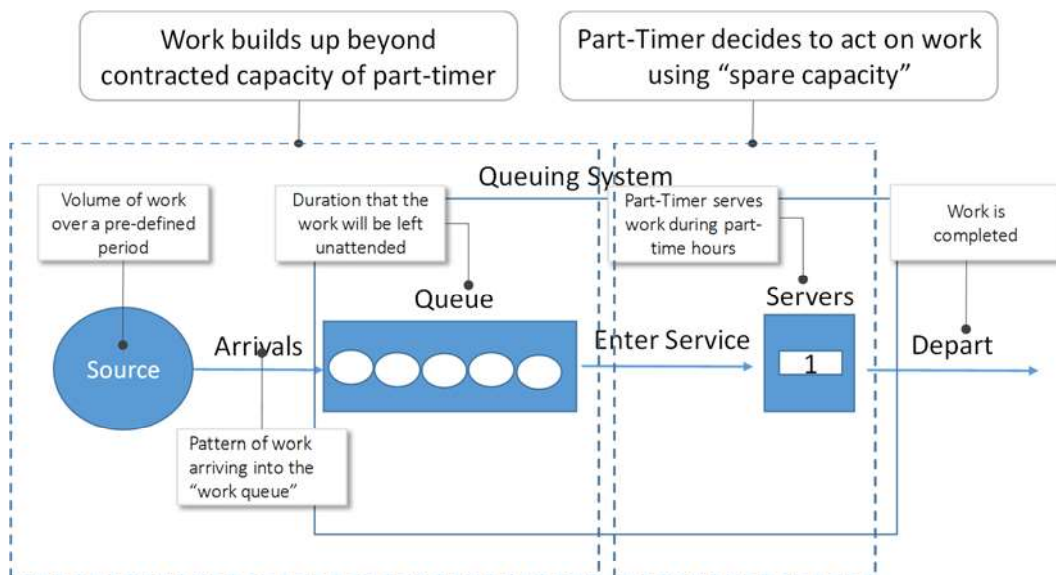
Figure 3: Initial Mapping of Queuing Theory to Part-Time Work



The above mapping implies that overtime work can be a result of two independent but related components.

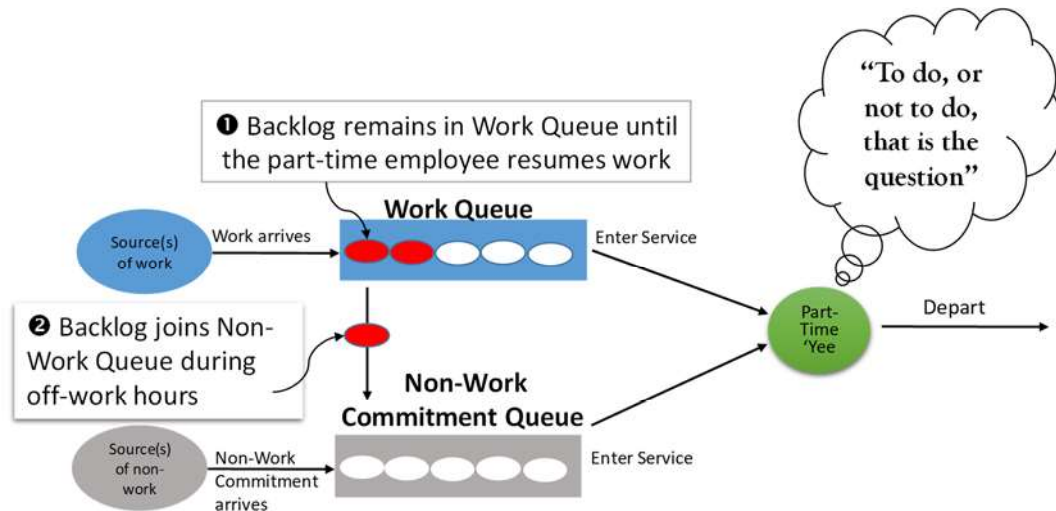
The first is the likelihood that the work will build up beyond the contracted capacity for the part-time employees, while the second is the decision of the part-time employees to "activate" their non-work hours to work overtime. These two components are illustrated in Figure 4 below.

Figure 4: Overtime work is a result of work exceeding capacity and the individual's response to incur overtime



Theoretically, the part-time employee can either let the work remain in the queue or let it join the non-work commitment queue as illustrated in Figure 5 below.

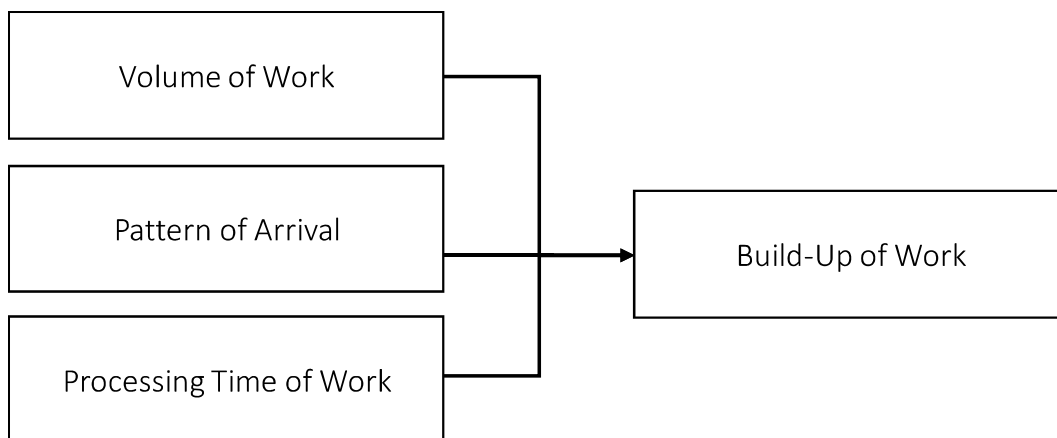
Figure 5: Part-time employee's decision to let work remain in queue or join the non-work commitment queue



2.2.5.2 Detailed Mapping

Based on the initial mapping above, the build-up of work beyond the contracted capacity of the part-time employee can be due to (1) a spike in the volume of work arriving at a point in time (2) a random pattern of arrival, and/or (3) an increase in the processing time required. These three factors can be represented in a conceptual diagram as per Figure 6 below.

Figure 6: Factors Driving a Build-Up of Work



As for the response to accommodate work during non-work hours, it can be mapped to a few techniques used in queuing models to optimise the waiting time of “work units”.

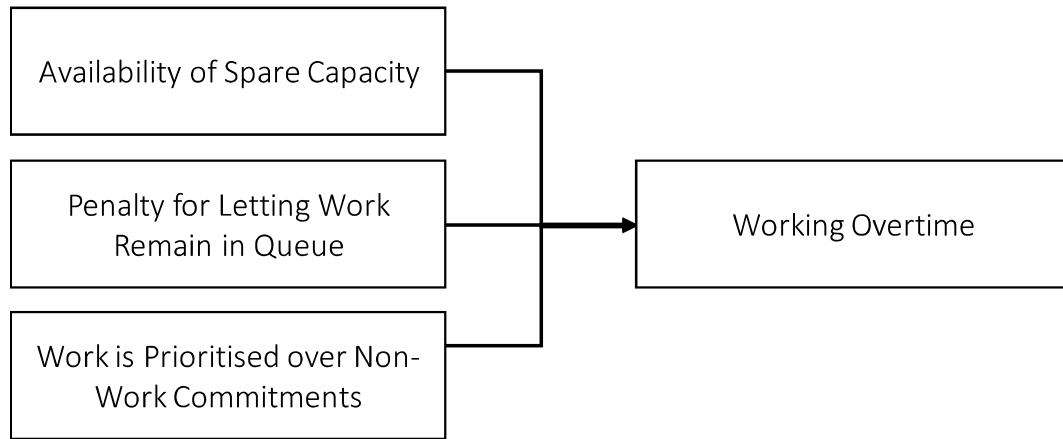
The first is the availability of spare capacity in the non-work commitment queue. In a queuing system, it is a fundamental assumption in queuing theory that all available capacity of the server will be used (Cooper, 1981). When the available capacity has been consumed, the work must stay in the queue unless there is additional capacity to be utilised. In this context, spare capacity would refer to the part-time employee’s uncommitted time during non-work hours that is available for work.

The second factor is the presence of a penalty for letting work units remain in the queue. For example, in queuing networks, the drift-plus-penalty technique (Neely, 2006) is used to maintain stability of the network traffic through minimising penalty. “Penalty” is manifested through lost or incomplete data packets. The analogous application to the work context can be a tangible penalty e.g., paying liquidated damages to clients for missing deadlines or an intangible penalty like perceived loss of trust by co-workers or customers.

The third factor is the explicit prioritisation of work over other non-work commitments. This scenario is known as the multiple class model in the context of queuing theory (Lazowska, Zahorjan, Graham, & Sevcik, 1984). This means that the part-time employees consciously undertake overtime work because they accord it higher priority than other non-work commitments.

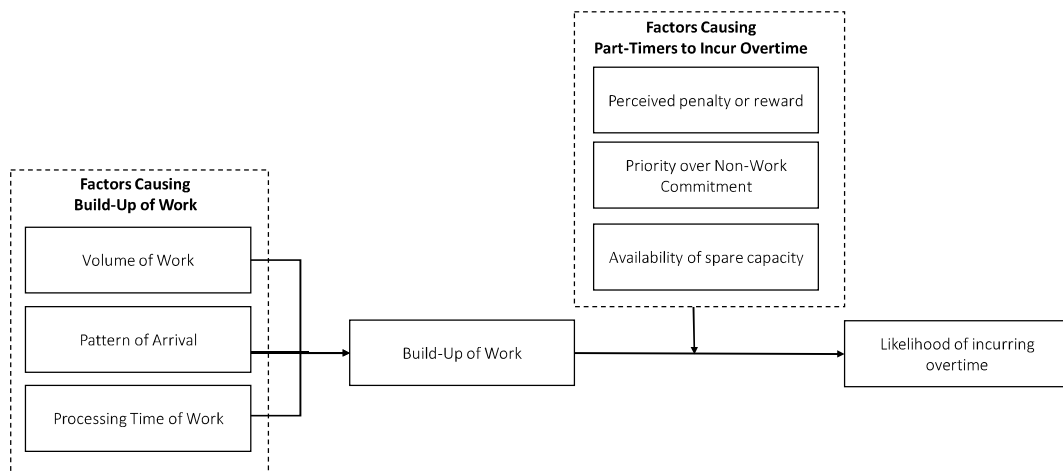
These three techniques can be represented in a conceptual diagram as depicted in Figure 7 below:

Figure 7: Factors Influencing Part-Time Employees to Incur Overtime



These two components can be integrated into a single conceptual model as below.

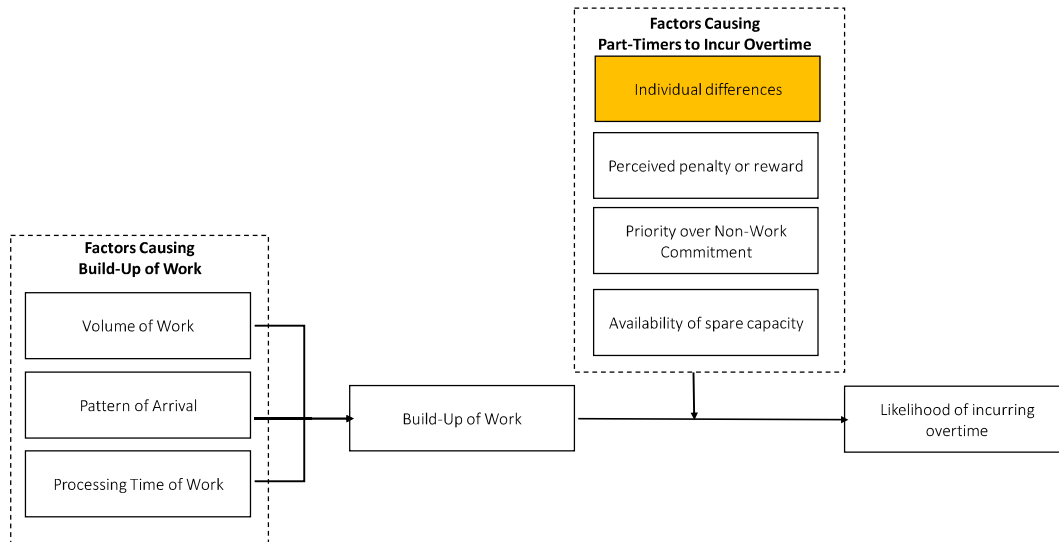
Figure 8: Conceptual Model Combining Build-Up of Work and Likelihood of Incurring Overtime



However, in the process of developing the model, I realised that the category on individual differences cannot be mapped onto queuing theory. This is because in queuing theory, servers are considered homogenous units and individual

differences do not come into consideration. The complete model, with this category included, is shown in Figure 9 below.

Figure 9: Final Conceptual Model which Includes Individual Differences



Through the iterative process of theoretical sampling, coding and reflection, I reached theoretical saturation. I determined this by looking for data which could not be explained by the conceptual model so that I could develop further hypothesis or constructs to explain them. After numerous iterations of fine-tuning, the model now adequately reflects all the data collected (Sbaraini et al., 2011).

In the next section, I will explain the phenomenon of part-time employees working overtime by using the conceptual model described above. I will also report insights on the levers to manage overtime and the impact of working overtime on employee outcomes. Finally, I will discuss the implications of these findings on the individual as well as the organisation.

2.3 Conceptual Model of Why Part-Time Employees Work Overtime

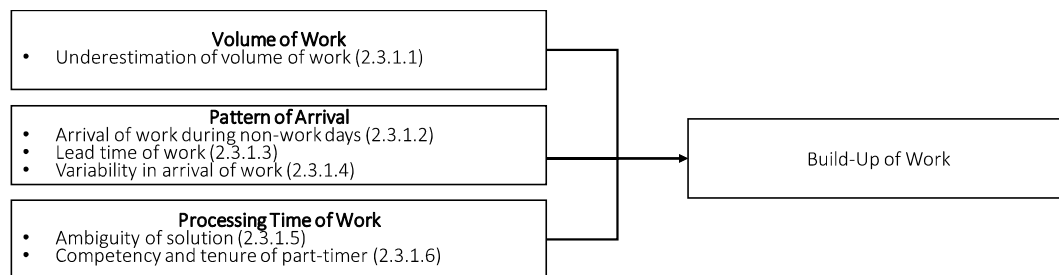
In this section, I will first explain how the factors driving a build-up of work and those driving overtime work manifested in the interview data. Due to participant confidentiality issues, not all parts of the interviews are provided in this report.

2.3.1 Factors Driving Build-Up of Work

I have previously identified three key factors which are responsible for driving the build-up of work. In this section, I will provide further details of how each factor manifested in the data which was collected.

Figure 10 below summarises the specific manifestations of the factors from the interviews.

Figure 10: Specific Reasons for Build-Up of Work Beyond Contracted Capacity



2.3.1.1 Underestimation of Volume of Work

From the interviews, one reason for the build-up of work is the underestimation of the volume of work that the part-time employee can undertake within the contracted capacity. This may be due in part to the fact that the

supervisor could not accurately estimate the workload to fit within the contracted capacity.

One interviewee said that she had told her supervisor at the inception of the work arrangement that it would be difficult for her to handle two classes in her part-time capacity. However, she believed that her supervisor did not internalise her comment until he saw it unfolding before his eyes. She said this of her supervisor:

“He could not understand until it was really happening...when he saw me running in and out of office.”

- *Lecturer in a higher learning institute*

Another interviewee, a recruitment consultant, echoed that her boss did not know how her part-time arrangement would turn out because it was a new arrangement to both.

Corwin, Lawrence and Frost (2001) offer some suggestions on why supervisors sometimes fall short of designing and maintaining an optimal part-time arrangement. Firstly, they may be overwhelmed with “day-to-day challenges”, and secondly, most companies do not provide them with enough guidelines to design sustainable part-time arrangements. In turn, the individuals would be left to manage the arrangements on their own.

2.3.1.2 Arrival of Work During Non-Work Days

Another reason for the build-up of work is because work continues to arrive even when the part-time employee is not working. The demands from the internal or external customers continue regardless of whether the part-time employee is present at work.

One interviewee believed that such a role would not be suitable for a part-time arrangement, and that having the right type of role is key to a sustainable part-time arrangement. She said:

“In those ‘mainstream’ roles, your clients come to you every day...a smaller number of business units does not mean less work; you repeat the same process. The scope of a part-time work arrangement must be right. If that is wrong, there is no need to even try.”

- Executive Director in HR on why her previous full-time role of HR business partner is not suitable for a part-time arrangement

Another interviewee cited similar reasons as to why she was required to work beyond the mornings each day. She said that as the form teacher of the class, students would send her text messages to seek assistance for administrative matters like replacing a misplaced student pass and she had to attend to them even though she was officially off-work.

Conversely, when a job is time and location bound, it is much less likely that work will arrive during non-work hours, and in turn, a build-up of work is less likely to occur. One interviewee said this about jobs where overtime is unlikely to occur:

“I think the type of work that would not incur overtime would be those that are time and location bound. I have friends who are physiotherapists and receptionists who need to be at work at a specific location and time, but these jobs do not have the flexibility that I need”.

-Senior manager in consulting on jobs which are unlikely to incur overtime, but may have less flexibility as they are time and location bound

2.3.1.3 Lead Time of Work

The third reason for the build-up of work relates to the lead time that is accorded to the job. From the interviews, I see that a longer lead time to complete the job means that the part-time employees have a longer runway to organise their work, and therefore, is less likely to result in a build-up of work.

One interviewee explained how she organised her project-based work due in three-months' time, to fit her three-day per week part-time work arrangement:

“The things that I needed to get done in three months' time, I work backwards in small steps because I'm not around all the time. I will break them down, and plan by when, I must finish it.”

-Executive Director in HR on breaking down her work to ensure completion by the end of the three-month period

In contrast, many interviewees cited “operational” work and “client-facing roles” as examples of work which have shorter lead times and required faster responses, and hence are not suited for part-time arrangements. These interviewees

felt that in such roles, there is less flexibility to re-organise the work to maintain a consistent workload falling within the part-time capacity.

2.3.1.4 Variability in Arrival of Work

Where there is significant variability in the rate of arrival of the work, it means that there are significant fluctuations in when and how much work arrives. From the interviews, I noted that people who reported high overtime are typically those whose work are characterised by high variability.

For example, an interviewee was originally assigned to undertake business development during his part-time stint. Due to the fluid nature of the work, he would sometimes be required to support project implementations when the need arose. Due to the high variability of the type of work he was supposed to do and the timing that the work presented itself, he was working approximately 30% more than his contracted hours. He said this about the challenge to “protect” his non-work time in an environment marked by high variability of the work:

“I would communicate often to the Managing Directors in terms of the agreed working days I would be present in office or working from home as a form of ratchet protection for my flexible arrangement. It would be effective for a week or two but would fall apart whenever a business opportunity arose and resources would be pulled back for support.”

- *Business consultant* on how he tried to protect his non-work time

Conversely, where the nature of the work is defined and there are few reasons for that plan to change, work is less likely to build up. In response to the

question of why her work can be contained within the work-hours, an interviewee reported:

“It can be contained because the scope of work is quite defined and it’s planned upfront already.”

- *Communications and outreach officer on why she did not need to work overtime*

However, fluctuations may also mean that there is a likelihood that the amount of work may be below the contracted capacity of the part-time employee. We observed that many interviewees took actions to adjust their own working hours to compensate for overtime incurred earlier. Asked about how she adjusted her part-time arrangement according to the outcome of her efforts, an interviewee reported:

“I have heavier days and I have lighter days ...if I achieved the target in the first three days of the week, I do kind of slack-off because it defeats the purpose if you’re working every day.”

- *Recruitment consultant on how she managed her workload*

However, it seemed that not all employees enjoy such flexibility. According to an interviewee, flexibility is usually more easily exercised by more senior employees because no one will be keeping tab on what they are doing:

“Flexibility is more easily exercised if the individual is more senior in the organisation...because the supervisor would not expect to know exactly

how the individual spent his or her time as long as the work gets done. On the contrary, a junior staff may struggle to exercise such flexibility...it is easier for a more senior person to push back on certain demands...junior person may not be as confident...as he would be conscious of the negative perception that the action brings.”

- *HR manager on how a part-time employee can manage overtime*

2.3.1.5 Ambiguity of Solution

From the interviews, I discovered that the processing duration of work depended on two factors. The first is whether the work is well-defined or it is ambiguous. When a job is well-defined, it is more likely that one will know the resource and effort required to complete the work. Conversely, where the solution is ambiguous, it is difficult to estimate the effort required, and therefore the resource required to complete the work may over run the part-time capacity. Consulting work is an example of such work where the solution is ambiguous. An interviewee said this of consulting work:

“Consulting work is knowledge work and fluid in nature. Therefore, there cannot be a strict start-stop time. The person performing the work will need to spend time thinking and be in discussions with other people.”

- *Business Unit Leader’s response on why part-time consulting employees consistently worked overtime*

Another interviewee from the same company struck a comparison between consulting work and other more routine functions. She said:

“For role-based functions like Finance, HR, secretarial support where the work is either routine or where there is flexibility on the deadline, I hear less of such feedback (of working overtime in a part-time arrangement). For client-facing roles where there are many deadline-driven client deliverables, I observe more employees struggling.”

- HR Manager’s response on whether she has heard feedback of part-time employee working overtime

2.3.1.6 Competency of Part-Timers and Tenure in Part-Time Arrangement

The duration of processing time is also dependent upon the competency of the part-time employee relative to the job role. In this context, competency is defined as a function of both effectiveness and efficiency of a part-time employee in undertaking the job role. I expect that if a part-time employee is more competent, the processing time would be shorter.

One interviewee said this in jest when asked why she does not incur overtime:

“...I’m highly efficient! That’s the truth!”

- Communications and outreach officer’s response when asked why she did not need to work overtime

In the same vein, other interviewees indicated that over a period of time, they got better at managing the work within the contracted time frame, although

some overtime is still incurred. An interviewee said this about improving the ability to manage the part-time work arrangement:

“Over time, I have learnt that I don’t need to give a 120%, I don’t need to give 100%, I just need to give 80% to get a product that is acceptable.”

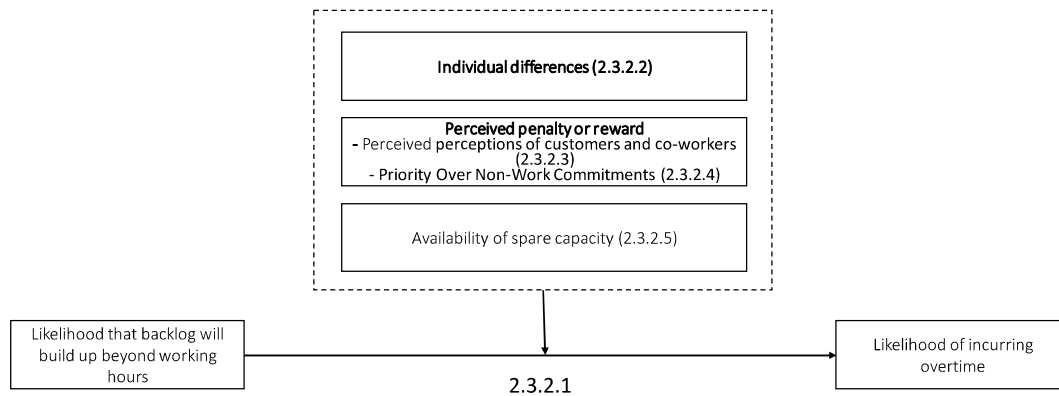
- Consulting and banking executive’s response when asked if she felt that her “time protection” mechanisms were helpful in managing her overtime

2.3.2 Factors Influencing Individual’s Response to Work Overtime

Next, I discuss the second component of this research, which is the factors driving an individual’s response to work overtime.

In Figure 11 below, I have summarised the factors and the specific manifestation in the interview data.

Figure 11: Factors Influencing Individual’s Response to Work Overtime



2.3.2.1 Relationship Between Backlog and Overtime

Most interviewees agreed that in their line of work, they would inevitably incur some overtime to fully complete a job. Most said that they did not want to be bean counters on the amount of overtime they incurred if it was not excessive. An interviewee said that it is unrealistic to expect a clean cut-off from work during the non-work hours:

“At the initial period...I said I will commit three hours, then I made this parting statement (to my boss) ‘Look, I know the nature of the headhunting job. You cannot just cut off. (You can’t say) it’s already after office hours, I don’t call candidates, I don’t call clients, I’m unreachable. It won’t happen in a sales job. So, let’s just say, generally, I will do what it takes to get the job done.”

- Recruitment consultant’s response to whether she was incurring overtime after the contracted working hours

This is likely due to the nature of the work that the interviewees undertake, which, according to O’Carroll (2015) is “creative mental work” which is often “deadline driven”. As such, it is very difficult to put a strict time boundary around it.

2.3.2.2 Individual Differences

After the nature of work, individual personality difference was the most cited reason for working overtime. Existing literature corroborates this finding

(Feldman, 2002). Many of the interviewees said that the decision to work overtime boiled down to individual personality. An interviewee said that she strongly believed that the individual is largely responsible for working overtime in whatever arrangement:

“I believe that there’s no place that will give you that perfect setting and so, to me, it’s not about going somewhere else to find my rainbow. I believe that the control is really in us... it’s because of how I work, the values that I place on my job, and the mindset that I have about work, that’s why I ended up working that way.”

- *Executive Director of HR’s response to the question of whether she considered seeking another full-time job which was less hectic*

Another interviewee echoed the sentiment that the individual’s preference accounted for the decision to work overtime or not. She said:

“You mustn’t assume that all people who go on part-time are willing to use their uncommitted time to do work...there are people who just don’t want to work and there are people who don’t have a very strong work ethic...I’m not even sure whether you are able to find a kernel of consistency because a lot of it depends on character, personality, your upbringing and your work ethic right?”

- *Consulting and finance executive’s response to question on how she would advise other part-time employees to use the time management techniques she used to manage their overtime*

When asked what type of personality would be more suited for part-time work, one interviewee felt that it would be one who can compartmentalise work and non-work time. She said:

“...the impact on job satisfaction depends on the working style of the individual. Some people can just ‘switch-off’, others are natural worriers and cannot ‘switch-off’. The latter group of people have the most difficulty adjusting to a part-time arrangement.”

- *HR Manager of consulting firm on what personality suited part-time work arrangement*

2.3.2.3 Perceptions of Customers and Co-Workers on Expected Service Level

In the interviews, the “penalty” manifested as perceptions that customers, co-workers and supervisors formed on the behaviour of the individual as well as the expected service level. From the interviews, these expectations were mostly self-imposed, shaped from the organisational culture or their own work ethics and beliefs, rather than explicit demands from an external party.

An interviewee said that she deliberately kept her non-work time free so that she could attend client meetings:

“I did want to be seen to be committed and I did want to be available to attend to that urgent client need...”

- *Senior manager in business consulting on why she deliberately kept non-work time free*

In the same vein, another interviewee explained that she expected that she would need to work more than the contracted period to progress in the firm:

“...Career opportunities, promotions...all these affected me. Am I going to only work a 4-hour day? No, I’m not...so I recognise that I’ll always have to work more...”

- Consulting and finance executive on why she accepted that she would need to work more than just the contracted hours

The part-time employee’s concern about the perception of their work may be at its peak at the beginning of the part-time arrangement. This peak may be because the individual would like to establish credibility, having recently transited from a full-time to a part-time role. One interviewee said:

“In the first year, the focus was to prove myself.”

- Executive Director in HR on working more overtime during the first year of the part-time arrangement, but subsequently adjusted for a more sustainable arrangement

As such, confidence against perceptions of co-workers or supervisors is important if the individual would like to reduce the amount of overtime worked. An interviewee said this about responding to work during off-days:

“...the part-time arrangement will work out if you are not bothered about what others think if you do not respond to work during off-days”

*- **HR manager** on when would part-time arrangement work for an individual*

2.3.2.4 Priority Over Non-Work Commitments

Many interviewees reported that they had an explicit prioritisation of the activities which they undertook in their uncommitted non-work time. For example, an interviewee who undertook charity work during one part-time stint, shared how she prioritised her non-work time:

“At that time, first priority was family. Second priority was (office) work and third priority is the <name of charity work>.”

*- **Consulting and finance executive** on how she prioritised her non-work time during one part-time stint*

However, not all work is equal. Different work can be accorded different priorities. The more granular the priorities, the easier it is for the part-time employee to tackle only what is critical and hence avoid incurring overtime for all backlog. For example, one interviewee recounted an incident where she was working on a specific piece of work during her holidays, but the rest of the work that came in during that period was put on the backburner:

“...I looked at my email; there were many other things that were going on. I didn't bother looking at the rest. I just let the rest be. I will get to it...at some point. I think the prioritization is important.”

- Executive Director in HR on prioritising of work to be done on an urgent basis

2.3.2.5 Available Capacity

None of the interviewees proactively suggested that the presence of uncommitted time would lead them to work more overtime. I validated this hypothesis qualitatively with the last two interviewees, in conjunction with the validation on the use of structured planning as a time management technique.

One interviewee acknowledged the possibility that this hypothesis may have applied in her situation:

“I found that the scheduling of my work was pretty flexible, and the scheduling of my non-work became pretty flexible... I didn't commit to yoga class, I didn't commit to a lunch with friends, because I didn't know if I had to work that day...”

- Senior manager in business consulting on the possible reasons why she was working a lot of overtime

The quantitative validation of this hypothesis will be elaborated on in Chapter 3 of this report.

2.3.3 Levers to Manage Overtime

Another key question that was asked of the interviewees was how they managed their overtime. Based upon the conceptual model discussed above, the

levers to manage overtime would be those factors that drive the build-up of workload and those which influence the response to work overtime. Some of these drivers can be easily changed, whereas some of them, like our personality, are very difficult to change.

In this section, I discuss the levers that the interviewees use to manage overtime.

2.3.3.1 Reduce Source of Work

Based on the theoretical model discussed above, a reduction in the source of work will reduce the likelihood of work building up. Interviewees have tried to manage their overtime by using techniques such as ensuring that work did not arrive on non-work days or working smarter to complete the same amount of work in a shorter period of time.

One interviewee tried to reduce the source of work by better equipping her co-workers and clients to be more self-sufficient. She said:

“I got a fair bit better...at creating an environment where people didn't feel they needed to lob things on me or reach out to me just anytime, and where people became a bit more self-sufficient in handling issues.”

- Senior manager in business consulting on how she adjusted over time

However, through the interviews, I observed that adjusting the source of work takes time. Interviewees only realised what to adjust after being in the part-time arrangement for a period of time.

2.3.3.2 Additional Resource

Another lever to manage the overtime is to ensure that there are additional resources to support the part-time employees, especially in situations where work needed to continue during their absence.

When asked what would make a part-time arrangement work, an interviewee said that there must be a “system” that facilitated the part-time and it took the form of a junior team member who was there to hold the fort during her absence each day.

Although this is theoretically a viable lever, implementing it on an existing part-time arrangement may require a re-crafting of role or budgetary approval to hire additional resources.

2.3.3.3 Manage Expected Waiting Time

Another key lever to manage overtime is to manage expected waiting time. Through managing the expected waiting time, the part-time employees’ co-workers and customers may be more receptive to a longer waiting time caused by their absence during their non-work days.

In one example, an interviewee realised her part-time by taking long breaks which were planned for at the beginning of the year. She managed her part-time work by communicating her schedule well ahead of time, and people generally worked around her schedule, and would not disturb her during her non-work days unless it was for very urgent matters.

Based on the interviews, this is a common lever used by the interviewees and it is one that can be easily used at any stage of the part-time arrangement by both parties in the contract.

2.3.3.4 Structured Planning

The concept of structured planning was originally meant to be tested quantitatively in a separate study. Due to the lack of participants, the following hypotheses were validated qualitatively as part of this study:

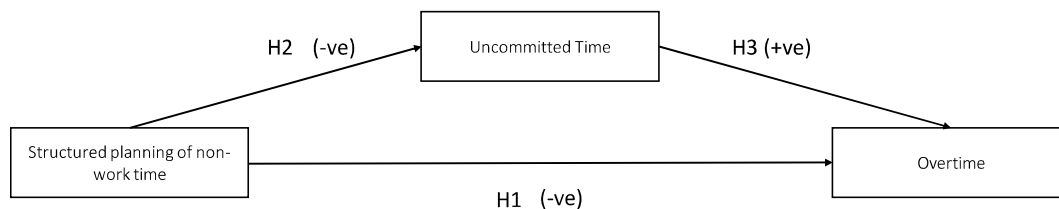
H1: The more the part-time employees plan their non-work time, the lower the amount of overtime incurred

H2: The more the part-time employees plan their non-work time, the lesser the amount of uncommitted time they will have

H3: The level of uncommitted time mediates the negative relationship between structured planning and overtime incurred

These hypotheses can be represented in the conceptual diagram in Figure 12 below.

Figure 12: Conceptual model depicting relationship between structured planning, uncommitted time and overtime



In this study, many interviewees undertook some form of structured planning to manage their overtime. In all the examples, the interviewees took conscious steps to plan their work to avoid having to work more than required.

An example of structured planning is the organising of work hours around the children's school schedule so that the part-time employee has a good reason to leave the workplace on time. This was used as a technique to stop her from continuing to work. She said of this technique:

“I know that I'll be very tempted to try and get on (with work) because I need to get to a certain stage, or I need to finish up a deliverable...I need this external pressure to tell myself, ‘Oh if I don't go now, I cannot fetch him to his tuition’...”

- Consulting and finance executive on how she organised work hours around her children's school schedule so that there is a hard stop to her work day

Another example of structured planning manifested in working smart to achieve daily targets. One interviewee explained how she planned to achieve her targets by changing the way she worked:

“Time matters in our line. Because my time is so limited, I have to work smart. For example, if there are 100 candidates in the market, and you have a lot of time, you speak to all the 100, and you pick up the best 2 or 5. But...I'm not going to speak to 100 people. I'll scan through the top 50, and from there, I will pick up 10 to talk to and shortlist 3. If it's not going to work, then I'll go down the list again. So, it's all about working smart to make my hours worthwhile.”

- Recruitment consultant on how to work smart to achieve her targets

Other forms of structured planning included communicating well ahead of time on the schedule that the individual was away so that people could plan their work to take into consideration of her absence.

None of the interviewees spoke about structured planning being mediated through uncommitted time. As such, we shared the hypotheses with two of the interviewees, and asked if they agreed that structured planning can reduce overtime, mediated by uncommitted time.

One interviewee said that the mediation could only happen if the part-time employee had uncommitted time in the first place. She said that for her, she did not recall having uncommitted time, and therefore, this hypothesis did not apply to her.

Another interviewee said that the use of structured planning would depend on the individual's personality. She said that as a free-spirited person, she felt that she would not choose to structure her time to minimise her uncommitted time. She would rather choose to do whatever she felt like doing at that moment. However, she said that it would differ for her husband, who was a more structured person. She cited an example where her husband practiced such structured planning by turning uncommitted time to committed time:

“He can't have the children at home with no plans because then...they'll play with the Lego and he'll do his emails or his work calls...so he actually does something where he has to physically divert his attention away from work. So...it's taking the kids for activities which he has to be engaged in, be it on the slides or in the pool, and he can't work.”

- Senior manager in business consulting on how her husband planned for activities that required him to be physically engaged to prevent himself from working during that period of time

She also said that she expected that people who had extra help at home would be less inclined to the structured planning method. Conversely, if the individuals did not have support which allowed them to be flexible with their time, they would be more inclined to adopt the structured planning method to contain their overtime.

“I think if you've got very flexible, sort of on-call type of support, like full time live-in help, or parents or in-laws next door who can just be there in a moment's notice, I think you are more likely to be less structured.”

- Senior manager in business consulting on what personality traits or contextual influence would drive someone to use the structured planning technique to manage overtime

Based on the interviews, all three hypotheses are supported, that is (1) the more the part-time employees planned their non-work time, the lower the amount of overtime incurred; (2) the more the part-time employees planned their non-work time, the lesser the amount of uncommitted time they will have; and (3) the level of uncommitted time mediates the negative relationship between structured planning and overtime incurred.

However, two moderators between structured planning and uncommitted time were identified. Firstly, the personality of the individual plays a role in

whether the technique will be adopted. The negative effect between structured planning and uncommitted time will be strengthened if the individual has a structured personality as described above. Secondly, the degree to which the individual can change his or her work and non-work schedule has a lot to do with the propensity to work overtime. The negative effect between structured planning and uncommitted time is likely to be strengthened if the individual has more difficulties in changing his or her work and non-work schedule.

2.4 Other Findings

2.4.1 Impact on Employee Satisfaction

When I asked the interviewees if they felt dissatisfied with the fact that they were working overtime, the majority indicated that they did not feel any dissatisfaction. Most accepted that working some level of overtime was part-and-parcel of the deal. One said:

“I know that if I choose to do part-time, it will never be equitable, and it is a premise that I had accepted, that I wanted to do part-time for my own reasons.”

- Consulting and finance executive on whether she felt dissatisfied about working overtime

Another believed that a certain level of overtime is inevitable to get the job done, and accepted it unless it became excessive. She recounted an experience where she needed to work during an overseas holiday:

“I did get in and out of (the work during the holiday), but am I unhappy? No, I’m fine. For me, it’s getting the job done, unless it becomes excessive. For example, if I sat in the hotel the whole afternoon and told my family ‘I cannot join you guys, you please go ahead’, then I would be unhappy.”

- Executive Director in HR on accepting a certain level of overtime

The sense of equity experienced by the part-time employee may also be affected by the overtime incurred by a fellow full-timer. One interviewee compared the amount of overtime that she clocked against that of other full-time colleagues, she said:

“At my level, I see so many of my full-time colleagues also staying back. What is the difference? So currently, I don’t see myself work harder disproportionately compared to my full-time colleagues.”

- Senior legal professional on comparing the amount of overtime she spends with that of her full-time colleagues

Another reason why interviewees were accepting of the overtime was because they were grateful to their employers for supporting their part-time arrangement. One interviewee said:

“I don’t want to be so particular about claiming time spent on off-days because the company is already supportive of my part-time arrangement.”

- Senior manager in IT consulting on whether she claimed time-off if she worked on her off-days

The final reason for being accepting of the overtime, is that some part-time employees achieved a sustainable part-time arrangement by being flexible about how they arranged their work. This meant that if they worked overtime in one period, they could compensate for it in another.

“...Generally those kind of requests...I would say, maybe once or twice a week...I didn’t feel it as a very big problem...I was always able to make up for it.”

- IT project manager on how frequently he was contacted by vendors during non-work hours

2.4.2 Perception on Career Progression

Amongst those interviewed, four interviewees spoke about the lack of career progression as one key consequence of a part-time work arrangement. These were unsolicited comments. Two consulting professions said that even though they were on part-time arrangements, they still aspired to progress. One went further to say that there should be role models to demonstrate how an individual could be on a part-time arrangement and yet progress like their full-time colleagues.

Another explained that her concern about career progression manifested in terms of role restrictions. For example, she was unable to get a role that she wanted because the management felt that she would not be able to undertake the role in that capacity.

From the above, it can be seen that part-time employees are concerned about how to progress, even though it may be slower for them compared to their full-time colleagues.

2.4.3 *Proactive Management to Sustain Part-Time Arrangement*

In all the interviews, there was an underlying theme of constant proactive management required to maintain an equilibrium. As part-time arrangement is not yet a mainstream work arrangement in Singapore, I saw that many interviewees entered such arrangements without certainty of what lay ahead of them. The same can be said of their supervisor or organisation who crafted the role with them. I saw interviewees re-crafting their old role so that the part-time arrangements would be sustainable; I saw people who intentionally imposed a hard stop to their work time to guard against themselves from working longer to complete work; I saw people who constantly reminded their bosses of their part-time capacity.

From the interviews, I noted that their struggles were widely-acknowledged by fellow-colleagues. An interviewee recounted her conversation with a colleague

“I had a lot of people asking me ‘Does your part-time even work?’ Just this morning, I met someone at the washroom and she said ‘You're here! Are you still on part-time?’ I said ‘Yes! I am!’ She then asked ‘Does it even work?’ ...She said she tried but it didn't work for her.”

- Executive Director of HR on wanting to share with others how part-time arrangement has worked for her

Another interviewee also said:

“I heard from a lot of people around me...that usually part-time is not part-time, you will still have to do a lot of other things (other than teaching)”

*- **Lecturer** on whether she anticipated that she would have to work overtime when she first embarked on the part-time arrangement*

Hence, it can be seen that the experiences of current part-time employees may serve to impede other people from subscribing to such an arrangement.

2.5 Implications, Limitation and Directions for Future Research

2.5.1 Theoretical and Practical Implications of Research

2.5.1.1 Granular Understanding of Drivers to Working Longer Hours

The current framework goes a step further than existing literature to dissect what are the core factors which drive longer working hours for part-time employees. For example, in the seminal research on part-time employees (Lee et al., 2002), “project-oriented work” was cited as a job characteristic which enabled success of part-time work arrangement due to its “bounded nature” (Page 216). However, it did not further distil what about the “bounded nature” helped manage the level of working hours. In the context of the model, “bounded nature” could translate to less variability in arrival of work and the volume of work could be more accurately estimated. In another example from the same study, "competent and supportive direct reports" was cited as a work group factor (Page 217) that facilitated success of part-time employee work arrangements. However, the literature stopped short

of explaining how a “competent and supportive direct report” contributed to a sustainable work arrangement. If this factor were explained in the context of this model, it can be translated to having additional resource capacity who can clear the queue in the absence of the part-time worker.

The current framework can further distil the drivers primarily because queuing theory highlights the fact that working longer hours is a two-step process comprising of (1) factors that are likely to drive backlog; and (2) factors influencing the individual’s response to supply labour.

On a theoretical front, the more granular the variables, the easier it is for researchers to accurately predict the outcomes of the phenomenon. On a practical front, the granularity gives companies and individuals a wider berth to adjust the part-time arrangements to make them work. Specifically, companies can focus on the “demand” side factors to improve the work arrangements. By focusing on specific elements like reducing variability in arrival of work, or giving longer lead time to the work, it is easier for the companies to design the part-time work arrangements within existing confines.

For the individuals, the supply side factors of the framework bring about a few practical implications. Firstly, part-time employees may not be aware that more uncommitted time may influence them to accommodate more work in their non-work time. This implies that individuals need to be more cognisant about how they spend their non-work time. Secondly, the supply side factors allow the individuals to take a more proactive approach to manipulate a multitude of factors to improve the working arrangement, for example, defining more granular priorities in the work and managing expected waiting time.

2.5.1.2 Multi-Faceted and Complex Nature of Phenomenon

Existing research describes the factors which drive longer working hours, but do not articulate how the factors interact with each other. As a result, companies and individuals cannot easily harness the findings to improve part-time work arrangements.

This model can better explain the multi-faceted and complex nature of the phenomenon by defining the relationship between the factors. For example, longer hours may be a combination of the nature of the work and the individual's self-expectation. The problem caused by the arrival of work on non-work days is exacerbated by the employee's concern about how co-workers would perceive his or her inability to complete the work within an expected time frame. The individual may take on work during non-work days so as to avoid being viewed negatively by co-workers.

The theoretical implication is that the model may be able to provide a more robust explanation of the phenomenon of part-time employees working longer hours, which allows the outcome of the phenomenon to be predicted more accurately. The practical implication is that if one lever cannot be directly manipulated, then this framework provides an understanding of what other levers are within the locus of control of either the company or the individual. For example, individuals may be in existing jobs where the work has a short lead time and is time sensitive. Using the model, the individuals can manage the part-time arrangement through arranging for back-up capacity during their absence (increase capacity), or manage the co-workers' expectation of the turnaround time (decrease negative perception).

2.5.2 *Limitation of Study*

2.5.2.1 Homogeneity of Profile

A potential limitation of the framework is the homogeneity of the profile of the interviewees. They are primarily white-collared female professionals who undertake part-time to support family needs. The homogeneity is contributed by multiple factors. Firstly, I have restricted my investigation to permanent part-time employees for reasons discussed in the Introduction Chapter above. Secondly, permanent part-time arrangements are not yet commonplace in Singapore. Based on a 2016 labour force report by the Singapore Ministry of Manpower, 10.5% of the resident employees are on part-time arrangement (Manpower Research and Statistics Department, 2016b). The report did not provide the statistic relating to permanent part-time arrangement, but it indicated that part-time arrangements were more widespread amongst “older workers, youths and less educated workers” (Page 22). In addition, it also indicated that “common jobs” that the part-time employees took on related to “food preparation & kitchen assistants, shop sales assistants, clerks, office cleaners and waiters” (Page 22). From these indicators, I deduced that most part-time roles in Singapore are likely to be short-term or temporary in nature. Within the small pool of permanent part-time employees in Singapore, the most common profile is of married women who undertake part-time to support childcare needs.

Faced with a limited population size which is largely homogeneous, I had to rely on my friends and contacts to source for permanent part-time employees with more varied profiles. Despite the variety of profiles in certain areas (e.g., age group, life-stage, intent for undertaking part-time arrangement), the respondents

would inadvertently share some similarities as they came from similar work and social environments. For example, in Study 1, four out of the ten part-time employees were either currently or had previously worked for the same consulting company. The two management representatives were also from the same consulting company.

There are two independent implications resulting from the limitations discussed above. The first is that the perspectives may be biased towards the company and the profession. The mitigating measure is that through the process of theoretical sampling and comparative analysis, the bias, if any, is reduced (Lazenbatt & Elliott, 2005). The second implication is the generalisability of the findings of this study to part-time employees beyond the profiles studied. The integrated framework developed in this study is based on interviews which were corroborated with findings from existing literature on why part-time employees work overtime. The issues observed from the interviews were similar to those faced by part-time employees in other studies (Almer & Kaplan, 2000; Kelliher & Anderson, 2009; Lee et al., 2002). As such, the framework as it stands, is sufficiently robust to address these issues reported in the literature thus far. However, there are many opportunities to develop this framework in breadth and in depth. These opportunities will be discussed in the following section.

2.5.3 Directions for Future Research

From a breadth perspective, the framework may first be extended to part-time employees of other profiles like millennials and the older workers. Secondly, the framework may be extended to part-time employees across geographies and cultures.

From a depth perspective, there are three areas which can be researched upon. The first area is to investigate the influence of various types of Person-Environment (PE) fit on the behaviour of overtime as well as on individual employee outcomes like job satisfaction and organisational commitment. The second area is to examine the impact of structured planning as an intervention to working overtime. The last area is to examine the impact of perceived equity of working longer hours on the employee's organisational commitment.

2.5.3.1 Workforce of the Future

From a breadth perspective, the findings may be extended to other profiles like millennials and the older workers. As previously mentioned, part-time work arrangements are currently adopted primarily by women who seek to balance work and family. However, the face of a part-time worker may change in the future. Firstly, it will comprise of millennials who have “portfolio careers” which may be a combination of permanent jobs and freelance gigs (Adobe, 2016; Lindner, 2016; Waldorf, 2016). Secondly, it may include the older workers who choose to remain active in the workforce to contribute their skills, knowledge and experiences, but at a slower pace through alternative work arrangements like part-time work (Dychtwald, Erickson, & Morison, 2004; Ministry of Health, 2011; Tan, 2012).

A possible direction for future research is to investigate how the model can be applied to part-time employees of these two profiles. I expect that framework of queues and supply and demand are likely to be scalable to cater to these profiles. In the case of millennials, it can manifest as multiple queues of work, instead of one queue of work from one employer. In addition, the motivations and goals of

millennials in seeking part-time work arrangements are likely to be different from a working mum. Similarly, in the case of the ageing retirees, the overall framework may apply equally, but the specific subject of what constitutes rewards and penalties may differ from a working parent because their underlying goals and motivations are different. These differences in goals and motivations may in turn exert differing influences on the overtime behaviour. This is an important area of research because it will give companies a broad-based understanding of how to better manage the part-time work arrangements for workforces with different profiles who may have differing goals and motivations for undertaking part-time employment.

2.5.3.2 Influence of Country and Culture on Overtime Behaviour

Existing literature does not identify country or culture as a factor influencing an individual's propensity to work overtime in a part-time arrangement. However, research in other areas gives us some clues that this may be an important factor to consider.

The first indication of such influence is the country's work-life balance indicator. Based on the 2016 OECD Better Life Index (OECD, 2016), countries differ significantly in the length of additional hours they work, as well as the time that they devote to leisure and personal care. On one hand of the spectrum, Turkey has 39.3% of its employees working longer than 50 hours on average per week. However, on the opposite end of the spectrum, only .4% of Norway's employees work longer than 50 hours or more a week. Another indicator of work-life balance is the time devoted to leisure and personal care. Turkey again ranks lowest at 12.2 hours whereas France leads the pack at 16.4 hours. The macro factors influencing

the Better Life Index of these countries are likely to permeate through the organisations and influence the employees on part-time arrangements.

Another indication of the country or cultural influences may be through the perceptions of working mothers. Treas and Widmar (2000) examined the attitudes towards married women's employment across 23 countries and found that they can be classified into three categories. Respondents from "Work-oriented" countries like Canada and USA are tolerant of mothers seeking full-time employment but would prefer them to either not work or work only part-time. Whereas, the "Family accommodating" countries like Australia, Austria, Germany do not support full-time employment for such women and would prefer the women to engage in part-time work even when the children have grown up. Finally, "Motherhood-centred" countries like Bulgaria would prefer pre-school women to stay at home. These perceptions may translate to how companies manage part-time employment arrangements, which in turn influences the overtime behaviour of part-time employees.

A possible direction for future research is to examine and compare the extent of country and cultural influences on the individual's propensity to work longer hours in a part-time arrangement. Such a research will provide useful insights for international companies to take into consideration when providing and managing part-time work arrangements across geographies.

2.5.3.3 Using a Person-Environment (PE) Fit Paradigm to Examine Influence on Overtime and Other Employee Outcomes

There are two key areas in the integrated framework which can be further examined to yield richer theoretical and practical insights for companies and individuals. The first area relates to which individual variables influence the behaviour to work longer hours and the second area relates to employee outcomes (e.g., organisational commitment and job satisfaction) experienced by those who work longer hours.

A Person-Environment (PE) Fit paradigm can be used to address these two areas concurrently. PE fit refers to the extent of match between the characteristics of an individual and the work environment that he or she is in (Kristof - Brown, Zimmerman, & Johnson, 2005). Examples of types of fit include "person-job fit", "person-organisation fit", "person-career fit", and "person-workgroup fit". In the different types of PE fit, specific individual characteristics are identified to match with various domain areas in the work environment. For example, in determining an individual's person-job fit, the individual's capabilities and goals would be matched with what the job demanded and provided (Edwards, 1991).

Firstly, the PE fit paradigm can be used to examine the relationship between the part-time employees' extent of fit with the environment and their employee outcomes like overtime behaviour, job satisfaction, organisational commitment and stress-level. Established PE fit scales can be used to clarify the specific individual differences which may influence these employee outcomes. For example, if a part-time employee required flexibility in the arrangement to pursue a part-time degree and the job design matched the requirement, the person-job fit would likely be high.

This in turn would likely result in more positive employee outcomes like lower overtime incurred and higher job satisfaction.

Secondly, the PE fit paradigm can be used to examine the influences of multiple types of PE fit on the employee outcomes. The various types of PE fit may either have a complementary or competing effect on the employee outcomes. For example, a part-time employee may be in a situation where the design of the part-time work is ill-suited for the employee, but the role offers good career prospects. In this example, a low person-job fit may interact with a high person-career fit to result in a higher stress level for the employee.

These insights are especially useful for companies in determining the match between employees and part-time positions.

On the individual front, the use of the PE fit paradigm can also be translated into an assessment scale for prospective part-time employees or existing part-time employees to assess if the nature of work and their individual characteristics makes them suitable for a part-time work arrangement. This can act as a “heat map” for these individuals to identify factors that may drive them to work longer hours than expected.

Such an assessment scale would complement existing part-time employee self-assessment guides (Hassink & Lund, 2012; "Is Part-Time Working Right for Me?," 2007) which provide guidance of what to consider and prepare for in a part-time work arrangement but do not point to specific areas which will impact on the viability of a part-time arrangement. Such an assessment tool would help individuals to plan and negotiate sustainable part-time work arrangements.

2.5.3.4 Perceived Equity of Working Longer Hours

Existing research on part-time employees indicate that many employees work longer hours and yet remain committed to their work and their employer. They are "trading flexibility for effort" (Kelliher & Anderson, 2009), which implies that they find the arrangement to be equitable even though they are working longer hours than contracted. These findings are echoed in the field interviews conducted in this study.

However, anecdotal evidence from Study 1 suggests that part-time employees compare the overtime they incur to what their full-time colleagues incur. If they do not incur proportionately more overtime than their full-time colleagues, they would continue to consider their work arrangements to be fair. This implies that the relative amount of overtime incurred by part-time employees as compared to their full-time colleague may be negatively correlated to their sense of perceived equity. The perceived equity may in turn affect the part-time employees' level of organisational commitment (Tansky, Gallagher, & Wetzel, 1997). This research will have significant implications on how companies should manage the perception of equity amongst part-time employees.

2.5.3.5 Impact of Structured Planning

Study 1 showed that structured planning can be an effective way of helping the part-time employees to manage their working hours. However, the study also revealed that it may not be a strategy that suits everyone or all context. For example, the interview showed that people valued the freedom to choose when to work depending on their mood. Also, structured planning may be more applicable to people who are stretched for time. Future study can be undertaken to uncover the

moderators which influence the relationship between structured planning and overtime. In addition, empirical study can be undertaken to validate if the relationship between structured planning and overtime is mediated by uncommitted time.

3 Chapter 3: More Free Time, More Overtime: The Effects of Uncommitted Time on Overtime

3.1 Introduction

This chapter studies the relationship between uncommitted time and overtime, as well as the influences of non-work orientation and relative gain or loss of uncommitted time. The data was collected through a web-based questionnaire experiment where 31 present and past part-time employees were asked to make decisions on how they would allocate uncommitted time in six simulated scenarios.

3.2 Literature Review and Hypotheses

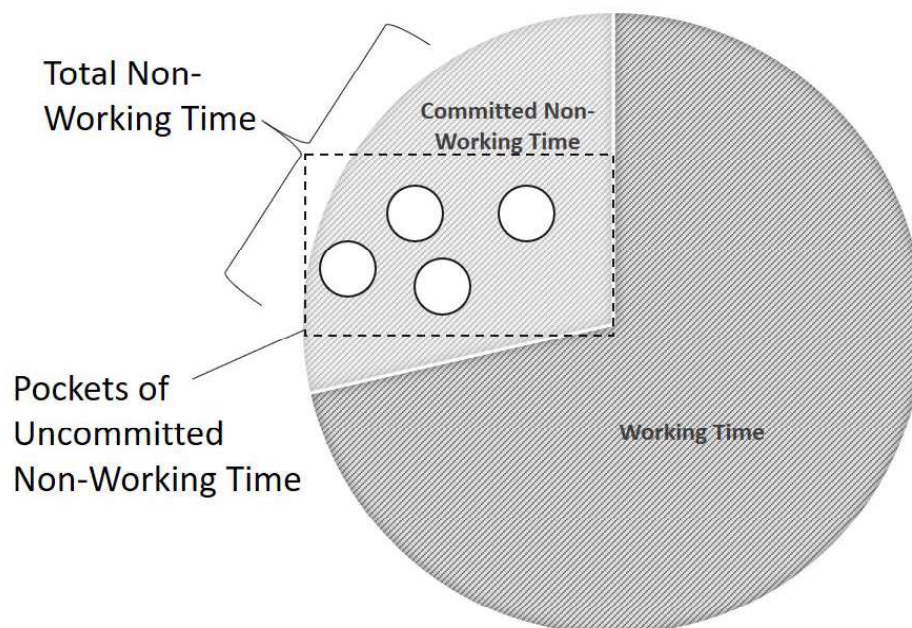
In Chapter 1, I reviewed existing literature explaining why part-time employees work longer hours than they had contracted for, and their strategies to manage overtime. I also provided a preview of why uncommitted time is likely to influence part-time employees to work longer hours. In this section, I pick up from where I left off in Chapter 1 to provide more details on existing literature around uncommitted time and the moderating variables, as well as establish the linkages between the literature and the hypotheses.

3.2.1 Time Distribution of Part-Time Employees

In general, a worker's time can be divided into working time and non-work time. In the context of part-time employees, they usually have "outside of work commitments" (Conway & Briner, 2002) during the non-work time. This may include looking after children, furthering studies, starting up a side business, etc.

These activities typically demand fixed time commitments from the individual and are difficult or expensive to modify. According to Palmquist et al. (2007), such use of time falls into the “committed time” category. The remaining pockets of non-work time, after excluding “self-care” activities like sleeping and eating, can then be used for leisure activities and household maintenance chores like grocery shopping, house cleaning, etc. (Palmquist et al., 2007). The demands for this bucket of time is typically flexible and may not need to be fulfilled in the immediate period. For this study, this segment of time is known as “uncommitted time”. The time distribution of a part-time employee as described above is illustrated in Figure 13 below.

Figure 13: Time distribution of part-time employees



3.2.2 *Uncommitted Time and Overtime*

Based on the definition above, uncommitted time is likely to be used as "emergency" time (O'Carroll, 2015) to cater to overtime work. This is because the demands for this bucket of time are more flexible and may be reallocated to future time periods if required, and thus becomes a good candidate for work to encroach upon.

In addition, extant literature lends support to how uncommitted time may affect overtime. For example, based on Parkinson's law, work fills the available time (Parkinson, 1955). In the situation where the individuals have a high level of uncommitted time, it is more likely that they will allow work to spill over to non-work time. This is because it may not make sense for the individuals to set up imaginary deadlines to complete the tasks when there is still time in the next few days to work on them.

In "Waiting for the Weekend", renowned architect Rybczynski W. (Feldman, 2002; Rybczynski, 1991) said that when individuals are faced with free time, they may be "uncomfortable doing nothing at all". As such, they are more likely to utilise the free time to work. Feldman (1990) further posited that having "structured hobbies and leisure pursuits" are ways to prevent the individual to habitually work longer hours.

The above findings and propositions from existing literature may be applicable in the context of part-time employees who have more non-work time relative to their colleagues working in full-time capacity. For this research, *overtime* for the part-time employees will be defined as "*working time incurred*

beyond the contracted amount and relative to that of a full-time employee in the same capacity”. As such, I posit that:

H1: the higher the level of uncommitted time, the more likely the part-time employee will incur overtime.

3.2.3 Moderating Effect of Relative Gain or Loss of Uncommitted Time

The commitments of part-time employees during their non-work time may fluctuate, which in turn results in the gain or loss of uncommitted time relative to an expected level. Would the level of overtime be influenced by such a gain or loss of uncommitted time? If so, what would be the specific nature of the influence? This question is analysed by examining the firstly the “gain” scenario followed by the “loss” scenario.

Uncommitted time can be compared to a pool of savings with the unique characteristic of expiring at a specific time. Therefore, the theory of mental accounting for money may be applied to shed light on the possible responses of the individual to the fluctuations in uncommitted time. In the theory of mental accounting, people create different “accounts” based on subjective criteria like where the money came from and the purpose of the account (Thaler, 1985). For example, Arkes et al. (1994) found in a study that windfall gains are more likely to be spent than other types of assets. Furthermore, the propensity to spend on consumption is higher if the source of money is won from a windfall, leading to a higher overall spending (Milkman & Beshears, 2009). Although these specific findings have not been proven in mental accounting for time, existing research

already indicates that mental accounting also applies for time (Rajagopal & Rha, 2009).

In the context of an unexpected gain in time, I would expect that the part-time employees would classify such gains as “windfall”, and spend them on activities which they usually do not find the opportunity to engage in, or which require longer periods of uncommitted time. Such activities are likely to be non-work related. On this basis, I posit that:

H2a: The higher the gain in uncommitted time relative to an expected level, the weaker the positive relationship between uncommitted time and overtime incurred.

Conversely, if there is a loss of time relative to an expected level, what would be the response? In typical situations, the part-time employees would feel anxious that they now have less time than expected to complete activities with impending deadlines. Therefore, the intuitive response would be to prioritise activities according to their due dates. In most cases, work-related activities have the highest likelihood of having closer due dates, especially in part-time arrangements where business operations continue even during the absence of the part-time employees. By tackling work-related activities first and at the highest priority, it is expected that the part-time employees will spend more time on work, compared to the corresponding “gain” scenario with the same absolute level of uncommitted time. The spending of more time is likely to be due to the effect of

Parkinson's law where the work fills the available time (Parkinson, 1955). Hence, I posit that:

H2b: The higher the loss in uncommitted time relative to an expected level, the stronger the positive relationship between uncommitted time and overtime incurred.

3.2.4 Effect of Non-Work Orientation

In a study on a consulting firm, Reid and Ramarajan (2016) found most of respondents trying to keep up with the impression of an “ideal employee” by being available all the time and downplaying the non-work facets of their personal lives like being parents, health and personal care. Thus, such employees suffer from the pressure of trying to balance both work and personal commitments. The authors suggested that employees should develop stronger non-work identities to better protect their personal time and space, and in turn become more effective employees.

The above proposition was supported empirically in a study on non-work orientation measures by Hall (2013). In the study, he found a significant correlation between respondents who attached high importance to family orientation and working fewer hours.

The above findings can be applied to the context of part-time employees who had sought part-time arrangements to pursue other facets of their lives like looking after children, starting a business, etc. It can be expected that individuals who have a stronger disposition towards the non-work domains of their lives

relative to work, will work lesser hours. For this research, *non-work orientation* is defined as “*an individual’s disposition towards non-work domains in his or her life relative to his or her career*”. Following from the above, I posit that:

H3: the higher the level of non-work orientation, the less likely the part-time employee will incur overtime.

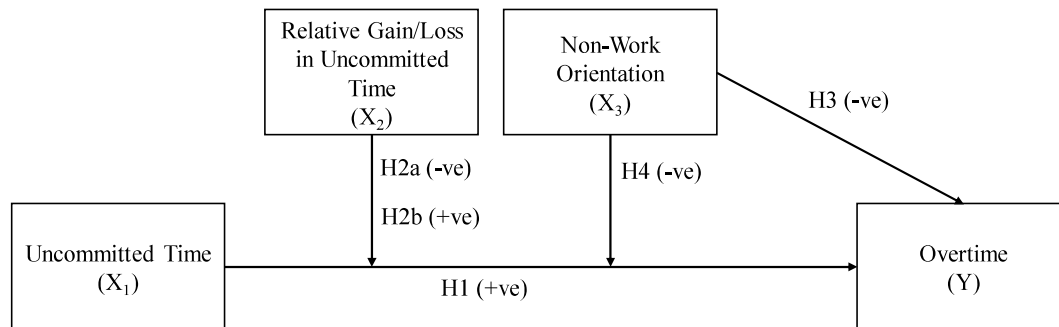
When people with higher non-work orientation have uncommitted time, they would likely spend them on areas aligned with their dispositions instead of spending them on work. Hence, I posit that:

H4: the higher the level of the part-time employee’s non-work orientation, the weaker the positive relationship between uncommitted time and overtime

3.2.5 Summary of Conceptual Model

The conceptual model encompassing the four hypotheses described above is summarised below.

Figure 14: Schematic representation of conceptual model



3.3 Methodology

3.3.1 Participants and Procedure

The participants were recruited from amongst or via my personal contacts. The online questionnaire containing the experiment was sent to a total of 38 individuals who agreed to participate, and 31 completed the questionnaire. All of them were required to be either currently or previously on part-time work arrangements in a permanent capacity within their companies.

All my contacts who assisted with the recruitment were provided with a standard e-pamphlet containing information about the study and the selection criteria of the respondents (see Appendix 3 for a copy of the e-pamphlet). When they found suitable respondents, they would either provide me with their e-mail address or contact number. Some respondents chose to send me their details directly

via an online form which I had created specifically for personal data collection. A copy of the online form can be found in Appendix 4 at the end of the report.

All individuals who qualified for the study were sent an e-mail providing information about the study as well as a one-time-use link to the questionnaire. The e-mail contained details of the objective of the study, how they would be involved, and how the data collected will be used and protected. They were also told that they would receive a S\$5 shopping voucher upon completion of the survey. Details of the e-mail can be found in Appendix 5 of this report.

If the individuals agreed to participate, they would need to provide explicit consent via the survey tool after which they could proceed to complete the online questionnaire. Each questionnaire took between 20-30 minutes to complete. The debrief information was presented at the end of the online questionnaire. At the debrief page, the participant had the option to submit the questionnaire or withdraw. If participants wished to withdraw from responding to the questionnaire after agreeing to do so, they could notify me of their intent via e-mail.

Once they had completed the questionnaire, I followed up with each one of them by sending a personal e-mail acknowledging the receipt of the data. I also informed them that I would be sending them the shopping voucher via snail mail within a stipulated period.

To ensure privacy of the data, the questionnaire is hosted on Qualtrics, which is a secured online survey platform. In addition, the file containing the data set is password protected and stored in Dropbox.

3.3.2 *Materials*

The participants responded to a four-part online questionnaire. There were two versions of the questionnaire: one was for existing part-time employees and another was for ex-part-time employees. In the former, the questions were directed at the participant's current part-time work arrangement, while in the latter, they were re-phrased to be directed at their most recent part-time work arrangement. Both versions of questionnaires can be found in Appendix 6 of this report.

Parts 1 and 4 of the questionnaire related to the demographics and nature of part-time work arrangements, for example, gender, marital status details of part-time arrangement, etc. The more sensitive demographic questions (e.g., age, marital status, income, etc.) were intentionally placed in the last section of the questionnaire to allow the participants to "warm-up" to the nature of the questions (Trochim, 2006) and so that they were less likely to feel uncomfortable about divulging this information.

In Part 2, the participants were required to respond to an established set of scale items relating to their non-work orientation relative to career (Hall et al., 2013). This is followed by Part 3 which contained the experimental materials. In this section, the participants were provided six similar scenarios and asked to decide how they would spend the uncommitted time obtained in these scenarios. Details of the experimental design are elaborated in Section 3.3.3 below. Finally, at the end of the questionnaire, they were presented with debrief information about the specific intent of each segment of the questionnaire.

3.3.3 *Design, Materials, and Manipulation*

In Part 3 of the questionnaire, the participants were sequentially given two sets of three similar scenarios (six in total), where they unexpectedly got more or less uncommitted time because their existing commitments were cancelled or adjusted. In each of the scenario, the participants were asked to specify how they would allocate their non-committed time to specific domain areas. The domain areas are family, personal pursuits, community service, household chores, work, self-care and other areas specified by the participants.

I manipulated two variables in these six scenarios. The first variable is the gain or loss of uncommitted time (X_2) as compared to what the person normally had on a weekly basis. The second variable is the amount of uncommitted time (X_1) that the individual had. This variable was set at 2 hours, 4 hours and 6 hours respectively. In sum, the experiment was a 2 (gain versus loss) x 3 (uncommitted time: 2 hrs, 4 hrs, 6 hrs) within-subject design.

As an illustration of the “loss” scenarios, participants were told, via the questionnaire, to imagine that on a typical Tuesday, they usually did not have commitments till 5.30pm. However, on this day, the 8 hours of uncommitted time usually available was reduced to a lesser amount (which could be 2 hours, 4 hours or 6 hours) because they had to give up some time to complete an urgent work-related deadline. The person would then need to allocate these reduced hours across various activities. The hours allocated to the “work” domain would be the dependent variable (Y).

An extract of the brief is re-produced below:

“Recall that normally, Tuesday is your off-day and you have no commitments until 5.30pm. However, today, you have to meet an urgent and last-minute deadline. You expect to work from 9.30am - 3.30pm. This means that you will have 2 hours of free time till 5.30pm.

You are free to spend your time on any of the 6 categories below. However, you are conscious that you have an unfinished report which is due by end of tomorrow.

How would you spend the rest of the day?”

For the “gain” scenarios, participants were told to imagine on Thursdays, they typically had a full-day of non-work commitments. However, due to some stroke of luck, these commitments were suddenly cancelled and they had some uncommitted time available (could be 2 hours, 4 hours or 6 hours). The person would then need to allocate this reduced hours across various activities.

The following elements were incorporated into the design of the experiment to ensure that the results are valid and reliable. Firstly, each set of scenario was worded similarly to control for variables like time of day, day of week, location, etc. that may affect the results. Secondly, participants were not allowed to proceed to the next scenario before they provided their responses. Neither were they allowed to return to the previous scenarios. This measure was taken to minimise the influence of later scenarios on the earlier ones. Finally, I have incorporated counterbalancing to control for order effects in this within-subject repeated measures design. The participants were first randomly presented with either the

Tuesday (loss) or Thursday (gain) scenarios. Then, within each set, the participants were randomly presented with the scenarios either in increasing (2, 4 and 6 hours) or decreasing (6, 4, 2 hours) levels of uncommitted time. The levels of uncommitted time were intentionally presented in sequential order to minimise confusion when participants responded to the questionnaire.

3.3.4 Measures

Non-Work Orientation (X₃). I measured Non-Work Orientation with Hall et al. (2013) Non-Work Orientation scales, comprising of three sub-scales: Community Service, Personal Life and Family Orientations. The scores from each of the sub-scales were averaged to form the Average Non-Work Orientation score.

The participants were asked to what extent each of the statements in the scale items below described them, by rating the statement on a 5-point Likert scale (1: “little or no extent” to 5: “to a great extent”). According to Hall et al. (2013), non-work orientation is multi-dimensional and comprises of Community Service, Personal Life and Family Orientations. Community Service Orientation refers to the importance that people attach to being able to serve the community that they live in while pursuing a career. An example of a statement in this scale is “I value being of service to other people in the community where I live.” Personal Life Orientation refers to the importance for the individual to pursue their personal interest while engaging in a career. An example of a statement in this scale is “In addition to working or being with family, having time to participate in activities I personally enjoy is really important to me.” Finally, Family Orientation refers to the importance that people place on the needs of their family relative to their careers.

An example of a statement in this scale is “My career decisions are made in terms of how they will affect my family.”

Overtime (Y). I measured the dependent variable based on the amount of uncommitted time (in hours) each participant allocated to the “work” category.

Demographic and Part-Time Arrangement Variables. Demographic and part-time arrangement variables were collected to better understand the profile of the respondents. The variables and attributes relating to profiles and part-time work arrangements are found in the Tables 8 and 9 below.

Table 8: *Part-Time Work Arrangement Variables*

Variables	Current Employment Status	Reason for Working Part-Time**	Duration of Part-Time Arrangement	Intent to Continue Part-Time Arrangement	Location of Work	Frequency of Working Overtime	Nature of Part-Time Arrangement	Number of Hours and Days Worked per Week	Total Non-Working Time	Distribution of Non-Work Time between Various Domains	Whether Job is Suitable for Part-Time Arrangement	Job Role Involves Supervisory Responsibility
Attributes	Part Timer =1	Child Care	< 6 months =1	1-3 months=1	only work from the office during working hours=1	Very Frequently=1	working normal hours over reduced number of days (e.g., 3 days per week) =1	Lower limit - >0 hours	Full-Time equivalent minus Hours worked Each Week	Domains: • Family Time • Personal Pursuits • Household Chores • Community Service • Self Care • Work	Yes=1 No=2	Yes=1 No=2
	Ex-Part-Timer =2	Elderly Care	6 months to 1 year =2	4-6 months=2		Frequently=2		Upper limit - <40 hours or alternatively defined full time equivalent				
		Personal Pursuits	> 1 year to 3 years =3	7-9 months*	only work from home (or from other locations outside the office) during working hours=2	Occasionally=3	working every day but with fewer hours (e.g., 9.00 am to 1.00 pm each day) =2			Time Spent for each domain: • Lower Limit – 0 • Upper limit – maximum of non-work time		
		Community Service	>3 years to 5 years =4	10-12 months*		Very Rarely=4	alternate work period (e.g., such as one week on and one week off)*					
		Others	> 5 years =5	>1 year but less than 2 years=3 No plans to change part-time arrangement =4 No longer in part-time =5	Flexibility to decide the location of work, depending on the needs of work=3	Rarely=5 Never*	A combination of the above =3					

Table 9: Demographic Variables

Variables	Gender	Age	Marital Status	Number of Children	Age of Children	Number of Dependents	Length of Service in Current Company	Nature of Compensation	Average Annual Income (excluding bonus)	Main Business of Company	Nature of Occupation
Attributes	Female = 1	Below 20 years = 1	Married = 1	0=0	0-4	0=0	Not working in part-time capacity at current company = 0	I receive a monthly fixed base pay based on the number of days that I work = 1	Less than \$20,000 =1	Administrative and Support Service Activities = 1	Manager = 1
	Male = 2	20 - 24 Years* 25 - 29 Years =2 30 - 34 years =3 35 - 39 years =4 40 - 44 years =5 45 - 49 years = 6 50 - 54 years =7 55 - 59 years = 8 60 years and above =9	Separated*	1=1	5-9	1=1	< 6 months =1 6 months to 1 year =2 > 1 year to 3 years =3 > 3 years to 5 years =4 > 5 years = 5	I receive commission income depending on my performance =2 I receive overtime pay for any additional hours that I work*	\$20,000 - \$39,999 =2	Education =2	Professional =2
			Widowed*	2=2	10-14	2=2			\$40,000 - \$59,999 =3	Teacher =3	
			Single=2	3=3	15-19	3=3			\$60,000 - \$79,999 =4	Financial and Insurance Activities =3	Technician and associate professional =4
			Divorced*	4=4	Above 19	4=4			\$100,000 - \$119,999 =5	Health and Social Services =4	Others =5
			Cohabiting=3	>5=5	>6=6						
			\$120,000 - \$139,000 =6	Information and Communications =5							
			\$140,000 - \$159,000 =7	Manufacturing =6							
			More than \$160,000 =8	Professional, Scientific and Technical Activities =7							
			\$80,000 - \$99,999 =9	Public Administration and Defence =8							
				Wholesale and Retail Trade =9							
				Others =10							

Notes:

*Attribute was not selected by any participant in the survey, as such, there was no code accorded to it.

**Participants could select more than one attribute, as such, for clarity, the codes representing the combinations of attributes selected are presented below in Table 25.

3.4 Results

3.4.1 Demographics and Nature of Part-Time Arrangement

A dominant profile emerged from amongst the respondents: most respondents were female (93.5%) who were married (87.1%). They were between 40-49 years of age (54.84%), with 2-3 children (75.4%) between ages 5-14 years old (75.4%). Most respondents had been working in the current company for more than three years (71.0%), on a fixed monthly salary (93.5%) and were either managers or professionals (80.6%). Most have assumed part-time work arrangements due to childcare needs (80.6%), and had been on part-time for more than three years (51.6%). Most planned to continue the arrangement in the foreseeable future (58.1%). The demographic profiles of the respondents are summarised in Table 10 below.

The majority of the respondents (77.4%) indicated that they had to work overtime at least occasionally. Amongst these respondents who worked overtime, a further 45% indicated that they needed to work overtime frequently or very frequently. Despite the need to work overtime frequently, the majority indicated that they perceived the job to be suitable for part-time arrangement (87.1%).

The nature of the part-time arrangement of the respondents were relatively equally distributed between working only in office (54.8%) and having the flexibility to decide on the location of work (41.9%). Also, equally distributed were respondents who worked every day but at a reduced number of hours (41.9%), versus working normal hours over reduced number of days (45.2%). There was also a relatively equal distribution between those with supervisory responsibilities

(58.1%) and those without (41.9%). The part-time arrangement information of the respondents is summarised in Table 11 below.

Table 10: Demographic Information of Respondents

Demographic Variable	N	%
Gender		
Female	29	93.5%
Male	2	6.5%
Total	31	100.0%
Age		
Below 20 years	1	3.2%
25 - 29 years	1	3.2%
30 - 34 years	4	12.9%
35 - 39 years	6	19.4%
40 - 44 years	12	38.7%
45 - 49 years	5	16.1%
50 - 54 years	2	6.5%
Total	31	96.8%
Marital Status		
Married	27	87.1%
Single	3	9.7%
Cohabiting	1	3.2%
Total	31	96.8%
Number of Children		
0	0	.0%
1	5	8.8%
2	28	49.1%
3	15	26.3%
4	4	7.0%
5	5	8.8%
Total	57	100.0%
Age Distribution of Children		
0 – 4	5	8.8%
5 – 9	28	49.1%
10 – 14	15	26.3%
15 – 19	4	7.0%
Above 19	5	8.8%
Total	57	100.0%
Number of Dependents		
0	6	19.4%
1	1	3.2%
2	8	25.8%
3	2	6.5%
4	10	32.3%
5	3	9.7%

Demographic Variable	N	%
>6	1	3.2%
Total	31	100.0%
Length of Service at Current Company		
< 6 months	1	3.2%
6 months to 1 year	2	6.5%
> 1 year to 3 years	3	9.7%
> 3 years to 5 years	4	12.9%
> 5 years	18	58.1%
N.A.	3	9.7%
Total	31	96.8%
Nature of Compensation		
I receive a monthly fixed base pay based on the number of days that I work	29	93.5%
I receive commission income and a monthly fixed base pay	2	6.5%
Total	31	100.0%
Average Annual Income		
Less than \$20,000	3	9.7%
\$20,000 - \$39,999	5	16.1%
\$40,000 - \$59,999	5	16.1%
\$60,000 - \$79,999	6	19.4%
\$80,000 - \$99,999	2	6.5%
\$100,000 - \$119,999	2	6.5%
\$120,000 - \$139,000	2	6.5%
\$140,000 - \$159,000	1	3.2%
More than \$160,000	5	16.1%
Total	31	32.3%
Main Business of Company		
Administrative and Support Service Activities	1	3.2%
Education	8	25.8%
Financial and Insurance Activities	5	16.1%
Health and Social Services	4	12.9%
Information and Communications	3	9.7%
Manufacturing	2	6.5%
Others	1	3.2%
Professional, Scientific and Technical Activities	3	9.7%
Public Administration and Defence	2	6.5%
Wholesale and Retail Trade	2	6.5%
Total	31	100.0%
Nature of Occupation		
Manager	10	32.3%
Professional	15	48.4%
Teacher	3	9.7%
Technician and associate professional	1	3.2%
Others	2	6.5%
Total	31	100.0%

Table 11: Part-Time Arrangement Information on Respondents

Part-Time Arrangement Variable	N	%
Current Employment Status		
Current Part-Timer	28	90.3%
Ex-Part-Timer	3	9.7%
	31	100.0%
Reason for Working Part-Time		
Child care	18	58.1%
Elderly care and Child care	1	3.2%
Elderly care, Personal pursuits, Community Service and Child care	1	3.2%
Personal pursuits, Child care	5	16.1%
Personal pursuits	5	16.1%
Others	1	3.2%
Total	31	100.0%
Duration of Part-Time Arrangement		
6 months to 1 year	6	19.4%
< 6 months	4	12.9%
> 1 year to 3 years	5	16.1%
> 3 years to 5 years	4	12.9%
> 5 years	12	38.7%
Total	31	100.0%
Intent to Continue Part-Time Arrangement		
1 - 3 months	3	9.7%
4 - 6 months	2	6.5%
> 1 year but less than 2 years	5	16.1%
No plans to change the part-time arrangement	18	58.1%
N.A.	3	9.7%
Total	31	100.0%
Location of Work		
I had the flexibility to decide the location of work, depending on the needs of my work	13	41.9%
I only work from the office during my working hours	17	54.8%
I only work from home (or from other locations outside the office) during my working hours	1	3.2%
Total	31	100.0%
Frequency of Working Overtime		
Very Rarely	2	15.4%
Rarely	5	38.5%
Occasionally	13	100.0%
Frequently	5	38.5%
Very Frequently	6	46.2%
Total	13	100.0%

Nature of Part-Time Arrangement

Part-Time Arrangement Variable	N	%
working every day but with fewer hours (e.g., 9.00 am to 1.00 pm each day)	13	41.9%
working normal hours over reduced number of days (e.g., 3 days per week)	14	45.2%
A combination of the above	4	12.9%
Total	31	100.0%
Supervisory Responsibilities		
No	13	41.9%
Yes	18	58.1%
Total	31	100.0%
Perceived Suitability of Job for Part-Time Arrangement		
No	4	12.9%
Yes	27	87.1%
Total	31	100.0%

3.4.2 *Distribution of Non-Work time*

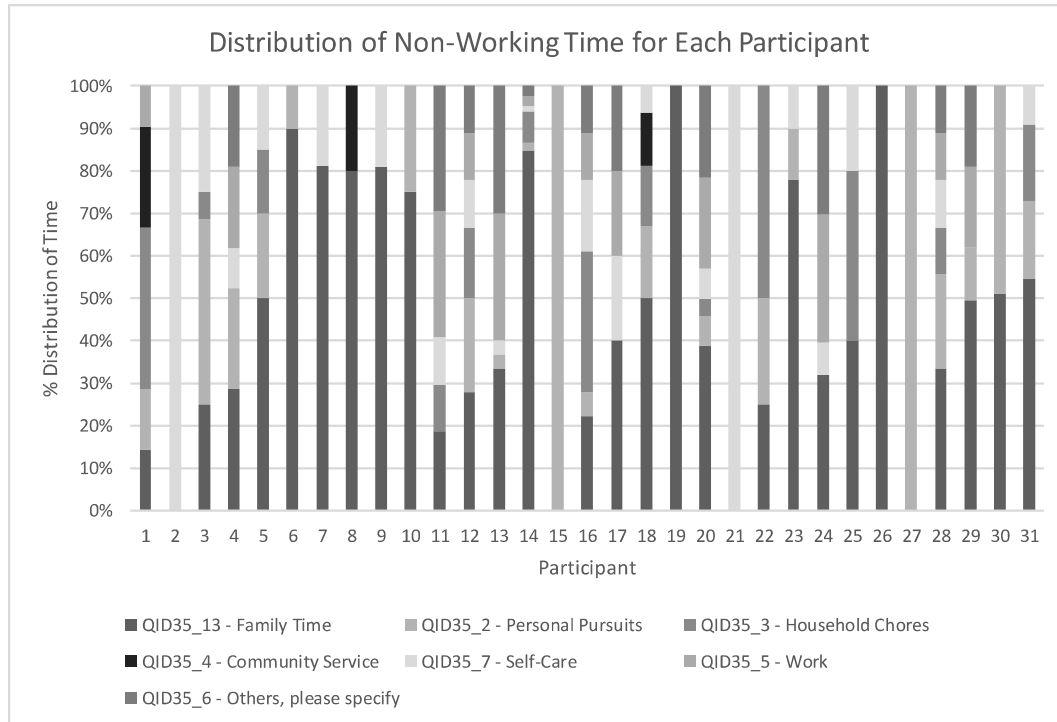
On average, the respondents, had 14.60 hours of non-work time (M=14.60, SD=6.93), which is approximately equivalent to two full working days. From the frequency distribution in Table 12 below, 64% of the respondents worked between 1-16 hours. This translated to approximately 1 – 3 days of non-work time. The non-work time was primarily distributed to family and personal pursuits, as seen from Figure 15 below.

Table 12: Frequency Distribution of Non-Work Hours Each Week

<i>Non-Work Hours</i>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	3.2	3.2	3.2
	2	1	3.2	3.2	6.5
	8	6	19.4	19.4	25.8
	9	1	3.2	3.2	29.0
	10	2	6.5	6.5	35.5
	12	2	6.5	6.5	41.9
	15	1	3.2	3.2	45.2
	16	6	19.4	19.4	64.5
	19	2	6.5	6.5	71.0
	20	5	16.1	16.1	87.1
	21	2	6.5	6.5	93.5

	Frequency	Percent	Valid Percent	Cumulative Percent
24	1	3.2	3.2	96.8
34	1	3.2	3.2	100.0
Total	31	100.0	100.0	

Figure 15: Distribution of Non-Working Hours for Each Participant



3.4.3 Non-Work Orientation

The highest non-work orientation measure was Family Orientation at $M=4.32$, $SD=.87$ followed by Personal Life Orientation, $M=3.59$, $SD=.84$ then Community Service Orientation, $M=2.05$, $SD=.79$. The mean of the Average Non-Work Orientation was $M=3.45$, $SD=.38$. The high score for Family Orientation is aligned with the results that most respondents chose childcare as the reason for undertaking a part-time arrangement.

In addition, the results of the standard deviation indicated low variability as seen in Table 13 below. The standard deviation of Average Non-Work Orientation

was the lowest at .38. The standard deviations of the other orientation measures ranged between .79 and .87. The low variability may be because non-work orientation for part-time employees are expected to be higher; a higher non-work orientation may have driven them to seek an alternative part-time arrangement in the first place. The implications of the low variability will be discussed in the section below.

Table 13: Descriptive Statistics of Non-Work Orientation, Community Service Orientation, Family Orientation and Personal Life Orientation

Measures	N	Mean	Min	Max	Standard Deviation
Average Non-Work Orientation	31	3.45	2.79	4.15	.38
Community Service Orientation	31	2.05	1.00	4.00	.79
Personal Life Orientation	31	3.59	2.20	5.00	.84
Family Orientation	31	4.31	2.20	5.00	.87

3.4.4 Effects of Uncommitted Time and Relative Gain/Loss of Uncommitted Time on Overtime (Hypothesis 1, Hypothesis 2a and 2b)

A two-way repeated measures ANOVA was conducted on the influence of the two manipulated independent variables (relative gain or loss of uncommitted time, amount of uncommitted time) on the overtime incurred by the part-time employee.

In general, the participants incurred higher overtime at higher levels of uncommitted time. The participants spent most time on work in the scenario where they gained 6 hours of uncommitted time, $M=2.37$, $SD=1.86$, followed by the scenario where the 6 hours of uncommitted time was preceded by a loss, $M=2.35$, $SD=1.89$. The scenario where 4 hours of uncommitted time was preceded by a loss was ranked third, $M=1.77$, $SD=1.52$, followed by the 4 hours gain scenario, $M=1.77$,

SD=1.35. The least time was spent in the 2-hours scenarios, with the gain scenario (M=1.03, SD=.92) yielding more overtime than the loss scenario (M=.98, SD=.96). The descriptive statistics and averages for the overtime incurred are summarised in Tables 14 and 15 below.

Only the effect of uncommitted time on overtime was found to be significant at all levels of uncommitted time, $F(2, 60)=32, p<.001$ as shown in Table 17 below. In addition, based on the post-hoc pairwise comparison as shown in Table 18 below, the effect is significant at all levels of uncommitted time.

The main effect of relative gain or loss and the interaction effect were both not significant at $F(1, 30) = .02, p>.05$ and $F(2, 60)= .52, p>.05$ respectively. The descriptive statistics of the interaction effect is shown in Table 16.

Based on the results, H1 is supported whereas H2a and 2b are not supported. This means that the higher the level of uncommitted time, the more overtime the participants incurred (H1). However, the gain or loss of the uncommitted time relative to an expected level did not influence the results of the main effect (H2a and 2b).

Table 14: Descriptive Statistics for Overtime Incurred in Six Scenarios

Overtime Incurred

Scenarios	N	Minimum	Maximum	Mean	Std. Deviation
Loss scenario/2 hrs uncommitted time	31	.00	2.00	.98	.96
Gain scenario/2 hrs uncommitted time	31	.00	2.00	1.03	.92
Loss scenario/4 hrs uncommitted time	31	.00	4.00	1.77	1.52
Gain scenario/4 hrs uncommitted time	31	.00	4.00	1.77	1.35
Gain scenario/6 hrs uncommitted time	31	.00	6.00	2.36	1.86
Loss scenario/6 hrs uncommitted time	31	.00	6.00	2.35	1.89

Table 15: Averages of Overtime Incurred

Factor 1 - Gain_Loss	Factor 2 - Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	1.03	1.77	2.36	1.72
Loss	.98	1.77	2.35	1.70
Average at 2 hrs/4 hrs/6 hrs	1.01	1.77	2.36	

*Table 16: Descriptive Statistics for Uncommitted Time*Gain/Loss*

Factor 1 - Gain_Loss	Factor 2 - Uncommitted Time	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Gain	2 hours	.98	.17	.63	1.34
	4 hours	1.77	.27	1.22	2.33
	6 hours	2.35	.34	1.66	3.04
Loss	2 hours	1.03	.17	.69	1.37
	4 hours	1.77	.24	1.28	2.27
	6 hours	2.37	.34	1.68	3.05

Table 17: Results of 2-way Repeated Measures ANOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gain/Loss	.02	1	.02	.02	.90	.01
Error(Gain/Loss)	33.29	30	1.11			
Uncommitted Time	56.83	2	28.41	32.00	.00	.52
Error (Uncommitted Time)	53.28	60	.88			
Gain/Loss * Uncommitted Time	.02	2	.11	.52	.95	.00
Error (Gain/Loss*Uncommitted Time)	12.55	60	.21			

Table 18: Pairwise Comparison of Uncommitted time

(I) Uncommitted Time	(J) Uncommitted Time	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
2 hours	4 hours	-.77*	.12	.000	-1.08	-.45
	6 hours	-1.35*	.22	.000	-1.92	-.78
4 hours	2 hours	.77*	.12	.000	.45	1.08
	6 hours	-.59*	.15	.001	-.95	-.22
6 hours	2 hours	1.35*	.22	.000	.78	1.92
	4 hours	.59*	.15	.001	.22	.95

*. The mean difference is significant at the .05 level.

3.4.5 Effect of Non-Work Orientation (Hypothesis H3 and H4)

I examined both the direct influence of non-work orientation on overtime (H3) as well as its role as a moderator on the relationship between uncommitted time and overtime (H4). I first used a one-way repeated measure ANCOVA, with the non-work orientation measures as covariates. The within-subject variable is the level of uncommitted time at 2, 4 and 6 hours respectively and the covariates are the 4 measures of non-work orientation.

There was no significant interaction effect between any of the non-work orientation measures and uncommitted time. The interaction effects of the non-

work orientation measures and uncommitted time are as follows: average Non-Work Orientation, $F(2, 58) = .96, p > .10$, Family Orientation, $F(2, 58) = .12, p > .10$, Personal Life Orientation, $F(2, 58) = .09, p > .10$, and Community Service Orientation, $F(2, 58) = .88, p > .10$.

There were also no significant between-subject effects for any of the non-work orientation measures on overtime. The between-subject effects for the non-work orientation measures on overtime are as follows: average Non-Work Orientation, $F(1, 29) = 2.50, p > .10$, Family Orientation, $F(1, 29) = 3.84, p > .05$, Personal Life Orientation, $F(1, 29) = .15, p > .10$, and Community Service Orientation, $F(1, 29) = 1.93, p > .10$. However, the significance level for Family Orientation was .06, which was very close to the significance level of .05.

Alternative Test Using 2-Way Mixed ANOVA

To ensure the robustness of the results, I performed an alternative test using a two-way mixed ANOVA. The interaction effect of the average as well as the three individual non-work orientations were found to be non-significant. The within-subject variable is the level of uncommitted time at 2, 4 and 6 hours respectively. The between-subject variables are the 4 measures of non-work orientation. Within each of the non-work orientation measure, the results were transformed from continuous to categorical variables to fit within the requirements of a two-way mixed ANOVA test. The output measures were recoded into 5 distinct categories corresponding to the scale described above (1="little or no extent" to 5 = "to a great extent"). Details of the transformation is summarised in Table 19 below:

Table 19: Transformation of non-work orientation output variables from continuous to categorical variables

Old Output Value	Transformed Value
1.0 - 1.9	1
2.0 - 2.9	2
3.0 - 3.9	3
4.0 - 4.9	4
5.0	5

There was no significant interaction effect between any of the non-work orientation measures and the main effect. The interaction effects between the non-work orientation measures and the main effect are as follows: average Non-Work Orientation, $F(4, 56) = 1.32, p > .05$, Family Orientation is $F(6, 54) = .47, p > .05$, Community Service Orientation, $F(6, 54) = 1.52, p > .05$, and Personal Life Orientation, $F(6, 54) = .81, p > .05$.

There was also no significant main effect of non-work orientation measures. The main effects of the non-work orientation measure are as follows: average Non-Work Orientation, $F(2, 28) = 1.97, p > .05$, Family Orientation, $F(3, 27) = 1.32, p > .05$, Personal Life Orientation, $F(3, 27) = .50, p > .05$ and Community Service Orientation, $F(3, 27) = 2.087, p > .05$.

Based on the results, H3 and H4 are not supported. This means that non-work orientation has no direct effect on overtime and it does not interact with uncommitted time to affect overtime.

3.4.6 *Additional Analyses*

In addition to the analyses done on hypothesised outcomes, I have conducted further investigations to uncover insights on the following three areas. The first is the relationship between the duration of the part-time arrangement and non-work orientation. The second is the relationship between the duration of the part-time arrangement and the intent to continue in the arrangement. The third area is the influence of uncommitted time on other non-work domains.

3.4.6.1 Relationship Between Duration of Part-Time Arrangement and Non-Work Orientation

A Pearson correlation was used to assess the relationship of the duration of the part-time arrangement and all four measures of non-work orientation. The duration that the respondent was in a part-time arrangement was positively correlated with Non-Work Orientation and Family Orientation at $r=.38$, $p<.05$ and $r=.54$, $p<.01$ respectively. The results can be found in Table 20 below.

This implies that the higher the individuals' non-work orientation and family orientation, the longer they will be in the part-time position. This finding is similar to that found in the study in which the non-work orientation scale was developed (Hall et al., 2013). In the study, duration of part-time arrangement was positively correlated to Personal Life Orientation.

3.4.6.2 Relationship Between Duration of Part-Time Employment and Intent to Continue Arrangement

Another interesting insight relates to the profile of the respondents. There is a significant positive correlation between the duration that the employees were in part-time employment with the same employer and their intent to continue the arrangements at $r=.40$, $p<.05$. The results can be found in Table 20 below. This is indicative that the part-time arrangements are sustainable, and therefore the respondents are comfortable to continue with them. A related area of future research is described in Section 3.6.1.2 below.

Table 20: Correlation matrix of demographic, part-time arrangement, and non-work orientation measures

Measures	Mean	S.D.	1	2	3	4	5	6	7	8
1 Gender	1.03	.18	1.00							
2 Age	4.61	1.36	-.36*	1.00						
3 Marital Status	1.16	.45	.34	-.54**	1.00					
4 Number of Children	1.84	1.19	-.29	.54**	-.57**	1.00				
5 Number of Dependents	2.71	1.77	-.28	.33	-.56**	.66**	1.00			
6 Length of Service at Current Company	3.87	1.69	-.21	.25	-.41*	.26	.20	1.00		
7 Nature of Compensation	1.06	.25	-.05	-.12	.49**	-.19	-.26	-.22	1.00	
8 Average Annual Income	4.55	2.66	-.18	.36*	-.08	.06	-.01	-.23	-.06	1.00
9 Business Activity of Company	4.52	2.54	-.04	.03	-.07	-.16	-.17	-.10	.21	.04
10 Occupation	2.03	1.08	.51**	-.26	.19	-.05	-.20	-.18	.24	-.18
11 Current Employment Status	1.10	.30	-.06	.09	-.12	.05	.24	-.76**	-.09	.47**
12 Reason for Part-Time Arrangement	2.55	1.88	.24	-.10	.48**	-.53**	-.47**	-.09	.06	.14
13 Duration of Part-Time Arrangement	3.45	1.50	-.30	.61**	-.40*	.60**	.39*	.39*	-.17	.19
14 Intent to Continue Part-Time Arrangement	3.52	1.09	.08	.41*	-.04	.09	.05	-.23	.12	.43*
15 Location of Work	1.87	.99	-.16	-.11	.12	-.25	-.08	-.19	.30	.17
16 Frequency of Working Overtime	3.26	1.15	-.04	.17	-.15	.10	.09	.22	.06	.14
17 Nature of Part-Time Arrangement	2.13	.34	-.07	.18	-.14	.05	.06	-.14	.29	.21
18 Supervisory Responsibilities	1.42	.50	-.16	.20	-.16	.34	.33	.26	.04	-.20
19 Perceived Suitability of Job for Part-Time Arrangement	1.13	.34	-.07	-.10	-.14	-.11	.06	.26	-.10	-.01
20 Length of Non-Working Hours	14.60	6.93	-.34	.18	-.40*	.27	.38*	.24	-.02	-.39*
21 Average Non-Work Orientation	3.45	.38	-.29	.32	-.05	.09	.26	.23	.11	.26
22 Community Service Orientation	2.18	.93	.01	-.09	.40*	-.10	.06	-.14	.20	.12
23 Personal Life Orientation	3.59	.84	.09	.21	-.21	-.19	-.08	.35	-.09	.10
24 Family Orientation	4.32	.87	-.450*	.26	-.20	.39*	.35	.07	.06	.12

Table 20: Correlation matrix of demographic, part-time arrangement, and non-work orientation measures- continued

Measures	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
9 Business Activity of Company	1.00															
10 Occupation	.01	1.00														
11 Current Employment Status	.06	-.22	1.00													
12 Reason for Part-Time Arrangement	-.14	.02	-.10	1.00												
13 Duration of Part-Time Arrangement	-.11	-.15	-.10	-.26	1.00											
14 Intent to Continue Part-Time Arrangement	.23	-.21	.45*	.10	.40*	1.00										
15 Location of Work	-.05	.04	.16	-.01	.00	.09	1.00									
16 Frequency of Working Overtime	-.06	-.09	-.07	-.01	.18	.10	.26	1.00								
17 Nature of Part-Time Arrangement	-.04	.08	.20	-.01	.08	.26	.25	-.09	1.00							
18 Supervisory Responsibilities	-.18	.34	-.28	.14	.27	-.23	-.16	-.19	.06	1.00						
Perceived Suitability of Job for Part-Time Arrangement	.00	-.10	-.13	-.06	-.05	-.10	-.15	.34	-.15	-.13	1.00					
20 Length of Non-Working Hours	.27	-.21	-.09	-.36*	.11	.07	.03	-.04	.02	.00	-.05	1.00				
21 Average Non-Work Orientation	.17	-.10	-.10	.09	.36*	.22	.17	-.10	.22	.28	-.13	.14	1.00			
22 Community Service Orientation	.08	-.12	.03	.06	-.11	.10	-.05	-.22	.16	.01	-.13	-.11	.57**	(.95)		
23 Personal Life Orientation	.23	-.09	-.18	.23	-.05	.11	.03	-.13	.03	-.01	-.18	.13	.39*	-.04	(.90)	
24 Family Orientation	-.07	.07	.03	-.15	.58**	.07	.22	.19	.10	.34	.13	.14	.37*	-.12	-.46*	(.94)

Notes: N= 31. *p<05; **p<01.

Gender: Female =1; Male =2. **Age:** Below 20 years =1; 25 - 29 years =2; 30 - 34 years =3; 35 - 39 years =4; 40 - 44 years =5; 45 - 49 years =6; 50 - 54 years =7. **Marital Status:** Married =1; Single =2; Cohabiting =3. **Number of Children:** No children =0; 1 child =1; 2 children =2; 3 children =3; 4 children =4; 5 children =5. **Number of Dependents:** No dependent =0; 1 dependent =1; 2 dependents =2; 3 dependents =3; 4 dependents =4; 5 dependents =5; >6 dependents =6. **Length of Service at Current Company:** Not working in part-time capacity at current company =0; < 6 months =1; 6 months to 1 year =2; > 1 year to 3 years =3; > 3 years to 5 years =4; > 5 years =5. **Nature of Compensation:** Fixed Base Pay =1; Commission Income and Base Pay =2. **Average Annual Income:** Less than \$20,000 =1; \$20,000 - \$39,999 =2; \$40,000 - \$59,999 =3; \$60,000 - \$79,999 =4; \$80,000 - \$99,999 =5; \$100,000 - \$119,999 =6; \$120,000 - \$139,000 =7; \$140,000 - \$159,000 =8; More than \$160,000 = 9. **Main Business of Company:** Administrative and Support Service Activities =1; Education =2; Financial and Insurance Activities =3; Health and Social Services =4; Information and Communications =5; Manufacturing =6; Professional, Scientific and Technical Activities =7; Public Administration and Defence =8; Wholesale and Retail Trade =9; Others =10. **Nature of Occupation:** Manager =1; Professional =2; Teacher =3; Technician and associate professional =4; Others =5.

Current Employment Status: Part Timer =1; Ex-Part-Timer =2. **Reason for working part-time:** Child care =1; Elderly care and Child care =2; Elderly care, Personal pursuits, Community Service and Child care =3; Personal pursuits =5; Others =6. **Duration of Part-Time Arrangement:** < 6 months =1; 6 months to 1 year =2; > 1 year to 3 years =3; > 3 years to 5 years =4; > 5 years =5. **Intent to Continue Part-Time Arrangement:** 1 - 3 months =1; 4 - 6 months =2; > 1 year but less than 2 years =3; No plans to change the part-time arrangement =4; No longer in part-time arrangement =5. **Location of Work:** I only work from the office during my working hours =1; I only work from home (or from other locations outside the office) during my working hours =2; I had the flexibility to decide the location of work, depending on the needs of my work =3. **Frequency of Working Overtime:** Very Rarely =1; Rarely =2; Occasionally =3; Frequently =4; Very Frequently =5. **Nature of Part-Time Arrangement:** working normal hours over reduced number of days (e.g., 3 days per week) =1; working every day but with fewer hours (e.g., 9.00 am to 1.00 pm each day) =2; A combination of the above =3. **Supervisory:** Yes =1; No =2. **Perceived Suitability of Job for Part-Time Arrangement:** Yes =1; No =2. **Non-Work Orientation scales:** 1 =little or no extent; 2 =to a limited extent; 3 = to some extent; 4 =to a considerable extent; 5 =to a great extent.

3.4.6.3 Influence of Uncommitted Time on Other Non-Work Domains

In this section, I derived insights on other non-work domains through a two-step process. Firstly, I used a two-way repeated measures ANOVA to examine the influence of the two manipulated independent variables (amount of uncommitted time and relative gain or loss of uncommitted time) on the time allocated to other domain areas. There are six domain areas excluding work. These domain areas are: Family, Personal, Community, Self-Care, Household Chores and Others. Secondly, I computed the proportion of time that the participants allocated to each domain area for each of the six scenarios. The results from these two steps yielded insights about how participants allocated time to the Family and Personal domain relative to the Work domain.

Using the two-way repeated measures ANOVA, the effects of uncommitted time on Family time ($F(2, 60) = 20.65, p < .001$), Personal time ($F(2, 60) = 12.94, p < .001$), Household Chores time ($F(2, 60) = 11.81, p < .001$) and Self-Care time ($F(2, 58) = 8.77, p < .001$) were found to be significant. In addition, the interaction effects of relative gain or loss of uncommitted time were significant for Family, Personal and Household Chores. The interaction effects of these domain areas are as follows: Family time, $F(2, 60) = 12.85, p < .001$, Personal time, $F(2, 60) = 9.72, p < .001$, and Household Chores time, $F(2, 60) = 4.02, p < .05$. The interaction effects for the other three domain areas were not significant. However, it is worth noting that for Self-Care, the interaction effect was non-significant by a very small margin, $F(2, 58) = 2.83, p < .07$). The results of the two-way repeated measures ANOVA for the six domain areas are shown in Tables 21, 23, 25, 27, 29 and 31. The averages of time incurred at each level of uncommitted time in both gain and loss scenarios are shown in Tables 22, 24, 26, 28, 30 and 32.

Table 21: Results of 2-way repeated measures ANOVA – Family Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Family Time	22.08	2	11.04	20.65	.000	.41
Error(Family Time)	32.09	60	.54			
Gain/Loss	.50	1	.50	3.45	.07	.10
Error(Gain/Loss)	4.32	30	.14			
Family Time * Gain/Loss	9.92	2	4.96	12.85	.000	.30
Error(Family Time*Gain/Loss)	23.15	60	.39			

Table 22: Averages of Family Time Incurred

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	.27	.74	1.08	.70
Loss	.31	.85	1.47	.88
Average at 2 hrs/4 hrs/6 hrs	.29	.80	1.27	

Table 23: Results of 2-way repeated measures ANOVA – Personal Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Personal Time	16.11	2	8.06	12.94	.000	.30
Error(Personal Time)	37.35	60	.62			
Gain/Loss	.20	1	.20	1.33	.25	.04
Error(Gain/Loss)	4.44	30	.15			
Personal Time * Gain/Loss	3.51	2	1.75	9.72	.000	.25
Error(Personal Time*Gain/Loss)	10.82	60	.18			

Table 24: Averages of Personal Time Incurred

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	.27	.74	1.08	.70
Loss	.31	.85	1.47	.88
Average at 2 hrs/4 hrs/6 hrs	.29	.80	1.27	

Table 25: Results of 2-way repeated measures ANOVA – Community Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Community Time	.54	2	.27	2.61	.08	.08
Error(Community Time)	6.16	60	.10			
Gain/Loss	.00	1	.00	.02	.90	.00
Error(Gain/Loss)	.93	30	.03			
Community Time * Gain/Loss	.25	2	.12	2.04	.14	.06
Error(Community Time*Gain/Loss)	3.62	60	.06			

Table 26: Averages of Community Time Incurred

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	0	.08	.15	.08
Loss	0	.10	.16	.09
Average at 2 hrs/4 hrs/6 hrs	0	.09	.19	

Table 27: Results of 2-way repeated measures ANOVA – Household Chores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Household Chores Time	2.36	2	1.18	11.81	.000	.28
Error(Household Chores Time)	6.00	60	.10			
Gain/Loss	.08	1	.08	1.26	.27	.04
Error(Gain/Loss)	1.85	30	.06			
Household Chores Time *	1.28	2	.64	4.02	.02	.12
Error(Household Chores Time*Gain/Loss)	9.57	60	.16			

Table 28: Averages of Time Incurred on Household Chores

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	.10	.29	.51	.30
Loss	.10	.24	.34	.22
Average at 2 hrs/4 hrs/6 hrs	.10	.27	.42	

Table 29: Results of 2-way repeated measures ANOVA – Self-Care

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Self Care Time	4.96	2	2.48	8.77	.000	.23
Error(Self Care Time)	16.40	58	.28			
Gain/Loss	.04	1	.04	.23	.64	.01
Error(Gain/Loss)	5.12	29	.18			
Self Care Time * Gain/Loss	.98	2	.49	2.83	.07	.09
Error(Self Care Time*Gain/Loss)	9.99	58	.13			

Table 30: Averages of Time Incurred on Self-Care

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	.23	.43	.71	.46
Loss	.41	.57	.76	.58
Average at 2 hrs/4 hrs/6 hrs	.32	.5	.74	

Table 31: Results of 2-way repeated measures ANOVA – Others

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Others Time	.05	2	.02	1.10	.34	.04
Error (Others Time)	1.29	60	.02			
Gain/Loss	.00	1	.00	1.00	.33	.03
Error(Gain/Loss)	.00	30	.00			
Others Time * Gain/Loss	.00	2	.00	1.00	.37	.03
Error (Others Time*Gain/Loss)	.00	60	.00			

Table 32: Averages of Time Incurred on Other Domain Areas

Factor 1 - Gain_Loss	Factor 2 – Uncommitted Time			Average at Gain/Loss
	2 hrs	4 hrs	6 hrs	
Gain	0	0	.04	.01
Loss	0	0	.03	.01
Average at 2 hrs/4 hrs/6 hrs	0	0	.03	

In the second step, I computed the proportion of time that the participants allocated to each domain area in all the six scenarios. The results can be found in Table 33 below.

Table 33: Proportion of Time Allocated to All Domain Areas

Domain Areas	Loss			Gain		
	2 hrs	4 hrs	6 hrs	2 hrs	4 hrs	6 hrs
Work	49%	44%	39%	52%	44%	39%
Self-Care	20%	14%	12%	11%	10%	12%
Family	15%	21%	24%	14%	12%	18%
Personal	11%	12%	15%	19%	17%	20%
Household Chores	5%	6%	6%	5%	7%	8%
Community	0%	2%	3%	0%	2%	3%
Others	0%	0%	1%	0%	0%	1%

Based on the results in Tables 33, participants allocated the largest proportion of time to the Work domain at all levels of uncommitted time, ranging between 39% - 52%. For both the gain and loss scenarios, the proportion of time allocated to the Work domain is inversely related to the level of uncommitted time. In addition, specifically in the loss scenarios, the proportion of time allocated to the Work domain was also inversely related to the proportion of time allocated to the Family and Personal domain. This meant that the more uncommitted time the participants had, they would allocate proportionately more time to the Family and Personal domain areas versus the Work domain area. These findings are consistent with the high Family ($M=4.32$, $SD=.87$) and Personal Non-Work Orientations ($M=3.59$, $SD=.84$) exhibited by participants in this sample.

Following the Work domain, the Family, Personal and Self-Care domains are the three areas where the participants allocated a high proportion of their time. These are also the three domain areas where the relationship with uncommitted time were found to be significant based on the results in Tables 21 – 32 above. The

pattern of apportionment for these three domain areas differed between the loss and gain scenarios as shown in Table 33. In the loss scenarios, the participants allocated more time to the Family compared to Personal and Self-Care. However, in the gain scenario, participants allocated more time to Personal compared to Family and Self-Care. This phenomenon may be explained by the arguments laid out in Section 3.2.3 above. I had hypothesised that in a situation where there is a loss of uncommitted time, the part-time employees would feel anxious and prioritised activities according to how urgent they needed to be fulfilled. Conversely, in a gain situation, the employees would spend time on activities which they usually did not find the opportunity to engage in. Applying this argument to the phenomenon, it implies that the participants may have perceived family related activities to be more pressing than personal activities, and therefore placed them at a higher priority. However, in a gain situation, the employees chose to spend proportionately more time on personal activities, which they may not usually find the time to engage in.

Finally, it can be observed from Table 33 that the increase in the proportion of time allocated to Household Chores were fairly small, ranging from 0%-1%. This implies that this domain area is relatively insensitive to the level of uncommitted time, even though the relationship between these two variables are statistically significant.

3.5 Discussion

From the results, only the main effect of uncommitted time on overtime was significant at all levels of uncommitted time. This supports the hypothesis that the higher the level of uncommitted time, the higher the likelihood of incurring overtime (H1).

The interaction effect of relative gain or loss of uncommitted time was found to be non-significant (H2a and H2b). One possible reason is that participants were insensitive to the information on relative gain or loss as provided in the scenarios as the situation is artificial. This is a limitation of the experimental design. Ideally, the experiment could be repeated in a real-life setting. However, to prove causality in the main effect between uncommitted time and overtime, there needs to be triggers to either increase or decrease uncommitted time. It is difficult to engineer such triggers in a natural setting without undue influence on the participants' responses.

The interaction and direct effects of the non-work orientation measures were found to be non-significant. Thus, Hypotheses 3 and 4 were not supported. A possible reason why Hypothesis 3 was not supported possibly because the variability within each of these constructs were low, as highlighted in Section 3.4.3 above. It may also be due to range restrictions and the small sample size of 31. To overcome the limitation on sample size, one possible area of improvement would be to increase the sample size as well as to vary the profile of the respondents. The expectation is that if more part-time employees of varied profiles were surveyed, the variability within the measures would increase. In addition, the power of analysis would also increase.

A possible reason Hypotheses 4 is not supported is that the measure of overtime is based on their responses to a hypothetical scenario and not the actual overtime incurred in their course of work. One possible way to overcome this problem is to correlate non-work orientations with actual working hours. However, in such a research design, other variables which may affect the relationship e.g., nature of work, must be controlled for.

For Hypotheses 4, the positive effect of Family Orientation on Overtime comes close to the .05 significance level. Similar to Hypotheses 3, the results may be due to the small sample size, and as such, a possible area of improvement would be to run the survey on a larger sample size.

The additional analyses yielded interesting insights on the influence of uncommitted time on the other non-work domain areas. Firstly, the results revealed that the higher the level of uncommitted time, proportionately less time is allocated to work. Conversely, proportionately more time is allocated to the Family and Personal domain areas as the level of uncommitted time increased. Secondly, the apportionment decision of the participants differed in loss versus gain scenarios for the Family and Personal domain areas. In loss scenarios, proportionately more time was spent on the Family compared to the Personal domain area. The converse is true in gain scenarios.

3.6 Implications and Directions for Future Research

3.6.1 *Implications*

The results of this study show that the level of uncommitted time influences the length of working hours. This has significant theoretical implication because uncommitted time has not been identified as a factor to influence the duration of working hours. On a practical front, it serves as an additional lever for part-time employees to manage their working hours by examining how they spend their uncommitted non-work time. If the uncommitted time is not properly planned, they may end up accommodating more work and working longer hours.

The insights on the inverse relationship between the proportion of time allocated to Work and the level of uncommitted time imply that there may be a limit to which part-time employees are accommodating more work during their non-work time. In addition, the desire to allocate proportionately more time to the Family and Personal domain areas may act as a dampener to the positive relationship between uncommitted time and overtime.

3.6.2 Directions for Future Research

3.6.2.1 Workforce of the Future

In this survey, the profile of the respondents is relative homogeneous. Most respondents are between 40-49 years old (54.84%) and the primary reasons for undertaking part-time is due to childcare needs (80.6%). This profile is reflective of the global trend where more women than men work on a voluntary part-time basis (Fagan, Norman, Smith, & González Menéndez, 2014).

However, this profile of part-time employees is likely to change in the future. Firstly, it will comprise of millennials who have “portfolio careers” which may be a combination of permanent jobs and freelance gigs (Adobe, 2016; Lindner, 2016; Waldorf, 2016). Secondly, it may include the older workers who choose to remain active in the workforce to contribute their skills, knowledge and experience, but at a slower pace through alternative work arrangements like part-time work (Dychtwald et al., 2004; Ministry of Health, 2011; Tan, 2012). The question remains whether the findings for Study 2 will apply to these two workforces.

A possible direction for future research is to investigate whether uncommitted time influences these two workforces in the same way that it does for

part-time employees who hold single permanent jobs and undertake childcare and family needs during their non-work time. The differences may arise from the type of activity which the part-time employees undertake in their non-work time, the number of jobs that they undertake and their motivations for working part-time. This is an important area of research because it will give companies a broad-based understand of how to better manage the part-time work arrangements of a workforce with different profiles.

3.6.2.2 Use of Insights as Validity Check for Assessment Scales

Another possible area of future research is to use the insights from 3.4.6.2 to serve as a validity check for the assessment scale discussed in 2.6.3.3 in Chapter 2. As a re-cap, the assessment scale is intended to ascertain if the part-time work arrangement is or will be a sustainable one. The findings from Study 1 indicate that there is a correlation between the duration in the part-time employment and the intent to continue the arrangements at $r=.40$, $p<.05$. This is indicative that there is a correlation between the duration of part-time employment and sustainability of the arrangement. As such, the duration of part-time employment of respondents should correlate positively with higher assessment scores.

4 Chapter 4: Conclusion

This dissertation sets out to investigate the phenomenon of part-time employees who reduce their workload and remuneration and are reported to work longer hours than they have contracted for.

Existing research attributes this phenomenon to four key factors – organisational culture, work design, work relationship (Friede et al., 2008; Lee et al., 2002) with people in the work environment and individual characteristics of part-time employees. However, existing research which discusses the phenomenon of part-time employees working overtime has revealed at least two gaps. Firstly, there is no integrated framework which links the factors that are reported to influence these employees to work longer hours. This impacts the ability for individuals and companies to systematically apply the existing findings to improve the part-time arrangements. Secondly, the studies to date on this topic use self-report methods which may limit the findings to what employees are explicitly aware of. This dissertation addressed these gaps via two independent but related studies.

4.1 Summary of Studies

Study 1 investigates the relationship between the factors causing part-time employees to work overtime and the mitigating measures to manage the extent of overtime, using grounded theory as a research method and borrowing queuing theory as an analogy to frame the findings. Firstly, I developed an integrated framework that explains why part-time employees work longer hours. The framework comprises of two parts, representing demand and supply of labour

respectively. The factors representing demand of labour drive the build-up of work, which in turn drives up overtime. The positive relationship between work and overtime is moderated by the second group of factors which primarily relates to the individual's response to the build-up of work.

After understanding “why” part-time employees work overtime, I extended the analogy of queuing theory to present the findings on “how” the interviewees manage the overtime. Using queuing theory as a frame, the part-time employees manage their overtime by manipulating the levers of work supply, resources and individual responses. I also looked at the role of structured planning in reducing overtime. Finally, the study revealed that employees work hard at sustaining the part-time arrangement, and are generally accepting of the overtime, but are concerned that their career progression is at risk.

This conceptual framework from Study 1 also reveals that the part-time employees may not be aware of all factors which influence their responses to accommodate more work into their non-work time. The individual may work more, simply because he or she has more uncommitted non-work time. This interpretation is validated Study 2.

Study 2 uses the experimental design to investigate the influence of uncommitted time on working hours. In addition, I tested the moderating effect of relative gain or loss of uncommitted time as well as the individual's level of non-work orientation. Based on the responses of 31 professionals who were either currently or previously on part-time work arrangements, I found that the relationship between uncommitted time and overtime was significant at all levels of uncommitted time. However, the effect of non-work orientation and relative gain

or loss of uncommitted time were found to be non-significant. This is possibly because participants were insensitive to the information on relative gain or loss as provided in the scenarios as the situation is artificial. Non-work orientation measures were found to be non-significant likely because of low variability within the results of each measure.

4.2 Discussion

This dissertation contributes to the understanding of why part-time employees work overtime in the three ways.

Firstly, the conceptual framework in Study 1 provides a more granular understanding of the drivers to working longer hours by focusing firstly on factors which drive backlog followed by factors which influence the individual's response to supply labour. On a theoretical front, this helps researchers to explain and predict the outcome of the phenomenon more easily. On a practical front, the granularity gives companies and individuals an understanding of a wider range of levers that they can use to adjust the part-time arrangements.

Secondly, the conceptual framework better explains the multi-faceted and complex nature of the phenomenon than existing research by defining the relationship between the factors. As a result, the model becomes more robust in predicting the outcome of the phenomenon. An understanding of the relationship between factors also implies that if any one lever cannot be directly manipulated due to constraints, companies and individuals can use the model to find alternative levers which are within their loci of control.

Lastly, the conceptual framework from Study 1 reveals that the part-time employees may not be aware of all factors which influence their propensity to work longer hours. The individual may accommodate more work because he or she has more uncommitted non-work time. This has been proven in Study 2. This implies that planning the use of uncommitted time is a possible lever for individuals to manage their overtime.

4.3 Directions for Future Research

4.3.1 Application to Cross-Country/Culture and Future Workforces

The first area of future research is to extend the breadth of the findings to workforces with different profiles as well as workforces across different countries and culture.

Currently, part-time work arrangements are adopted primarily by women who seek to balance work and family. In the future, part-time work arrangements may extend to include millennials who have “portfolio careers” (Adobe, 2016; Lindner, 2016; Waldorf, 2016) and the older workers who choose to remain active in the workforce through alternative work arrangements like part-time work (Dychtwald et al., 2004; Ministry of Health, 2011; Tan, 2012).

A possible direction for future research is to investigate how the model can be applied to part-time employees of these two profiles. I expect that the framework of queues, and supply and demand to be scalable to cater to these profiles. However, the motivations and goals of these profiles will differ from working mums and in turn exert differing influences on their overtime behaviour.

Another related area of research is to investigate whether uncommitted time influences these two workforces in the same way that it does for working mums who hold one permanent job and undertake childcare and family needs during their non-work time. The differences may arise from the type of activity which the part-time employees undertake in their non-work time, the number of jobs that they undertake and their motivations for working part-time.

A third area is to examine and compare the extent of country and cultural influences on the individual's propensity to work longer hours in a part-time arrangement. The differences in overtime behaviour may be influenced by factors such as societal perception of married women's labour participation rate (Treas & Widmer, 2000) and the accepted norms of working hours and non-work activities (OECD, 2016).

Research in the above areas will give companies a broad-based understanding of how to better manage the part-time work arrangements for workforces with different profiles. For international firms, the country and culture insights are especially useful to design and manage part-time arrangements across geographies.

4.3.2 Designing and Maintaining a Sustainable Part-Time Work Arrangement

The second area of future research is to deepen our understanding of the factors that drive a sustainable part-time work arrangement as well as the impact of these factors on employee outcomes like job satisfaction, organisational commitment and turnover intentions. The first sub-area is to examine how various types of Person-Environment (PE) fit may influence a part-time employee's

propensity to work longer hours as well as other employee outcomes like job satisfaction. These insights are especially useful for companies in determining which employees are a good fit for specific part-time positions. A related use of the PE fit paradigm is to develop an assessment scale based on the variables identified in Study 1. The purpose of this scale is for prospective part-time employees or existing part-time employees to assess if the nature of work and their inclination to respond to work make them suitable for a part-time work arrangement. Such an assessment tool would help individuals to plan and negotiate sustainable part-time work arrangements.

The second sub-area is to investigate the relationship between longer working hours and employee commitment. Existing literature shows that employees who work longer hours continue to be committed to their work and the organisation. However, anecdotal evidence in Study 1 suggests that employees may be committed only if they do not incur proportionately more overtime than their full-time colleagues. This research has significant implications on how companies should manage the perception of equity amongst part-time employees.

The last sub-area is to investigate the context that structured planning is effective in managing longer working hours. The preliminary findings in Study 1 suggest that structured planning may be adopted only by individuals of specific profiles or in specific circumstances. This research has implications on how structured planning can be effectively used as a mechanism to manage longer working hours.

As Singapore and the rest of the world progress into the future economy, the demand for part-time work arrangements is expected to increase. On one hand, it is to meet the traditional needs of women in the workforce who want to balance family and work. On the other hand, it is to cater to the demands of millennials who will take on a portfolio of permanent and part-time jobs and the older workers who choose to remain active in the workforce. This research contributes to the development of a robust model which can help companies and individuals to design and maintain sustainable part-time work arrangements.

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