

**A MULTILEVEL INVESTIGATION ON HOW
HOSPITALITY EMPLOYEES' CAREER COMMITMENT
CHANGES OVER TIME**

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
AUT	Auckland University of Technology
AUTEC	Auckland University of Technology Ethics Committee
AVE	Average Variance Extracted
CC	Career Commitment
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CI	Confidence Interval
CR	Composite Reliability
DIFF	Difference
FS	Family Support
GDP	Gross Domestic Product
HLM	Hierarchical Linear Modelling
HRM	Human Resource Management
ICC	Intra-class Correlation Coefficients
AOC	Affective Organisational Commitment
RMSEA	Root Mean Square Error of Approximation
RQ	Research questions
SE	Self-efficacy
SEM	Structural Equation Modelling
SMEs	Small Medium Enterprises
SPSS	Statistical Package for the Social Sciences
TLI	Tucker-Lewis Index
TVEM	Time-varying Effect Model
WB	Wellbeing
X ² /df	Chi-square by the Degrees of Freedom

ATTESTATION OF AUTHORSHIP

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

A handwritten signature in black ink that reads "Dan Zhu". The script is cursive and fluid, with the first letters of each name being capitalized and prominent.

Dan Zhu

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ABSTRACT

As working in the hospitality industry is often considered a negative career option by the latent workforce, the industry is facing labour shortages. The high turnover rate of the industry being a global concern not only indicates that hospitality workers are leaving their employers, but also implies that they are withdrawing from the industry. This PhD research project aims to contribute to the understanding of hospitality employees' career commitment which is vital for the sustainable development of hospitality businesses and the industry but has received scant attention from researchers.

Though a number of studies have uncovered the reasons for leaving the hospitality sector, there is a paucity of empirical evidence on the factors driving hospitality employees to stay in their occupational field. Even, among the limited works on this topic, the majority adopted between-person (cross-sectional) design and neglected within-person variance in career commitment and its antecedents, failing to provide evidence on whether their findings can remain valid over time. Based on vocational theories and meta-analytical reviews, the present study examines the relations of career commitment with the two important but less investigated antecedents (i.e., occupational self-efficacy and family support) using longitudinal design. This work also explores the mediation mechanism (i.e., affective organisational commitment) underlying these relationships.

A review of extant literature shows that few studies have tested an integrated model of career commitment combining both antecedents and outcomes. Particularly, with respect to the consequences of career commitment, much emphasis has been placed on the organisational outcome. This study assesses the causal relation between career commitment and wellbeing to provide a better understanding of the impact of career commitment on individual outcomes. While it is widely believed that the development of a career is a life-long process and several career-related constructs (e.g., career calling) have been found to be time-varying, the temporal nature of career commitment is understudied due to lack of longitudinal data. This study fills this gap by exploring the dynamic process through which career commitment develops. This thesis also investigates whether the predictive effects of the antecedents may vary as time passes. The research highlights that people may have different perceptions and

expectations towards their vocation at different stages of their work life, and the factors relevant to their career commitment may change as well as the weight they attach to them.

The study adopts a positivist paradigm with a quantitative methodology. A survey research method is employed with the aim of empirically and quantitatively examining hospitality employees' career commitment. Longitudinal data were gathered from 310 respondents working in the hospitality industry who were surveyed at three points in time, with a three-month lag between each. Statistical Package for the Social Sciences (SPSS) 26, Hierarchical Linear Modelling (HLM) 7 and Mplus 8.0 were applied to analyse data and test hypotheses. Specifically, the data analysis techniques included longitudinal multilevel modelling, longitudinal multilevel mediation modelling, latent change score modelling, latent growth modelling and time-varying effect analysis.

The research findings show that occupational self-efficacy and family support positively predict career commitment at both the within- and between-person levels. The results also exhibit that affective organisational commitment mediates such relations at both the within- and between-person levels. The positive time-lagged effect of career commitment on wellbeing is revealed. Specifically, the research shows that change in career commitment is positively related to change in wellbeing such that an increase (decline) in career commitment predicts a subsequent increase (decline) in wellbeing.

The research also reveals that career commitment indeed changes over time. While early-career employees display higher levels of career commitment than old-timers (employees who have relatively longer career tenure), they experience a drop in career commitment as time passes. In contrast, an increasing trajectory of change occurs in old-timers' career commitment. The change in the magnitude of the antecedents of career commitment is also captured. For example, the effect of occupational self-efficacy on career commitment is shown to increase over time for old-timers while the influence of family support decreases over time for early-career employees.

This is the first work to develop and present a dynamic theoretical model for understanding the antecedents of career commitment, the psychological process concerning how it is influenced by the antecedents, as well as its effect on individual outcomes using multi-wave

and multilevel research design. This is also the first study to record the developmental trajectory of career commitment and the time-varying effects of the antecedents. The contributions of the findings to the existing knowledge and their implications for practitioners are elucidated along with detailed suggestions for future studies on hospitality employees' career development and management.

1. Introduction

1.1 Research background

The hospitality industry consists of various fields within the service industry such as accommodation, catering, recreation and additional fields within the tourism sector (Ottenbacher et al., 2009). It is a pillar of economic development for many countries. For example, the hospitality industry accounts for an average of 10% of GDP (Gross domestic product) among G20 countries (Churchill et al., 2022; MacDonald et al., 2020). Since hospitality establishments serve customers all over the world, they offer developing countries more opportunities to earn foreign currency which finances the import of raw materials needed for infrastructure construction. Apart from direct contributions to the national economy, the sector's prosperity along with growing customer demand also stimulates the development of other industries, such as information technology, transportation, building, education etc.

Due to the nature of hospitality, the industry emphasises customer experience which heavily depends on labour to maintain, making it become the main source of job creation. As one of the world's largest employers, the hospitality industry provides approximately one out of every ten jobs worldwide (World Travel and Tourism Council, 2020, 2021). However, studies (e.g., Economic Insight, 2019; Joblist, 2021) from a number of different countries (e.g., the United States and the United Kingdom) have recently mentioned labour shortages in the hospitality industry. While in 2020, the underemployment rate in China reached the highest level since 2010, hospitality, the same year, was still ranked among the top five industries facing the biggest labour shortage (Gu, 2021). Undoubtedly, as a labour-intensive industry, employees are the most valuable assets, and a lack of hospitality professionals will lead to an inability to meet customer needs (Niu, 2010).

Recruiting and retaining talent in hospitality vocations have always been deemed to be difficult. In his study of hospitality students, Richardson (2008) found that more than half of participants were seeking jobs in non-hospitality fields already, and about 40% noted that they would not choose hospitality as a career. A similar percentage has been frequently detected since then (e.g., Lv et al., 2022; Neequaye & Armoo, 2014), with less than half of

respondents intending to pursue a hospitality career. Hospitality is among the sectors with the highest turnover rates. While the average annual worldwide employee turnover rate is around 19%, hospitality's is estimated to range from 60% to 300% (Jaworski et al., 2018). Studies on early-career hospitality employees show that above 30% leave the sector within the first five to six years (e.g., Blomme, 2006; Brown et al., 2014). This is not surprising as researchers have found that in many countries, hospitality is historically viewed as a negative long-term career option, often a temporary job until a real job is available (Sobaih, 2015; Williamson, 2017).

High turnover rates and labour shortages have been chronic issues challenging hospitality operators (Murray & Holmes, 2021). Special attention to hospitality employees' career commitment is therefore needed from both researchers and practitioners. Blau (1985a) defined career commitment as the strength of motivation to work in a chosen field. It has relevance to the practical concerns of both management and individuals. For example, as a predictor, it is closely associated with several organisational outcomes. Research illustrates that employees who are highly committed to their careers demonstrate less intention to leave their job (Weng & McElroy, 2012) and exhibit more willingness to self-sacrifice (Fu, 2011), greater productivity (Ahmed, 2019) and better work-related wellbeing (Duffy et al., 2011). From an individual perspective, commitment to a vocation motivates employees to proactively engage in career planning and occupational training, thereby advancing individual competitiveness and promoting career success (Van der Heijden et al., 2022). Even from a social perspective, individuals' career commitment may be beneficial to maintaining social stability, diminishing industry turnover rates and perhaps raising GDP (Mathieu & Zajac, 1990).

1.2 Problem statement

Considering the industry's poor reputation in the labour market and the benefits of career commitment to hospitality workers, employers and the industry, it is surprising to see that, to date, limited research has been conducted on this construct in the hospitality setting and several questions remain unanswered.

While a body of research (e.g., Han, 2020; Park & Min, 2020) has examined what drives hospitality employees to leave their jobs or profession, up to now there has been little deep investigation (e.g., Gebbels, 2016; Mooney et al., 2016) into the factors influencing their career commitment. Considering that industrial psychologists have long suggested that employees have different reasons for leaving or staying in their vocations (Yang et al., 2011), the factors motivating employees to remain in their hospitality careers thus need more research attention.

Preceding studies on career commitment have largely centred on the predictors within the workplace (e.g., job- and organisation-related factors), but the impact of psychological characteristics and family-related factors have often been neglected. In the current study, the researcher seeks to fill the gap in the literature by providing insight into the relations of career commitment with occupational self-efficacy and family support. Hiring workers with appropriate psychological characteristics is believed to be particularly vital to the hospitality industry (a people industry) in which customer experience is significantly influenced by service providers' attitudes and behaviour. Empirical hospitality research has found that employees with strong self-efficacy beliefs tend to have more work engagement (Wang & Tseng, 2019) and better service performance (Kale, 2020) than those who are less self-efficacious. These findings corroborate social cognitive theory (Bandura, 1986), which argues that psychological factors (e.g., personality, values, beliefs) arise from within and play a crucial role in human functioning as they shape and direct our thinking styles and choice of behaviour. So far, however, there is less information about whether self-efficacy can make a difference in individuals' willingness to remain in the chosen occupational field.

The justification for examining the impact of family factors on career commitment is based on the premise that there is no boundary between the two most vital dimensions of individual lives—work and family; “just as workplace factors affect extra-work life, so too do family and household factors influence organisational and career attitudes and behaviours” (Steffy & Jones, 1988, p. 197). Indeed, it was shown in a recent survey (Abe & Chikoko, 2020) that over 70% of participants considered their families an important factor when making career decisions. Managing the work-family interface is a salient issue for hospitality employees, many of whom work for long hours with unpredictable schedules and have difficulty

balancing work demands and family duties. The factors contributing to healthy interactions between family and vocation are thus worth investigating.

Existing research on the antecedents of career commitment has tended to test its direct impact, only a handful of them providing theoretical explanations of how and why these antecedents influence career commitment. A deeper understanding of the mechanisms explaining such relations is thus required. Accordingly, the present work investigates the progressive effects of the antecedents on career commitment, proposing affective organisational commitment as a latent mediating mechanism based on signalling theory (Goffman, 1959). Affective organisational commitment represents employees' emotional attachment to the employer. From another perspective, informed by signalling theory, it also mirrors the extent to which individuals' career needs are fulfilled by the organisation, sending employees a signal about whether they are valued by management and whether they are on a positive career path (Chang & Busser, 2019). Thus, affective organisational commitment is believed to play a critical role in shaping career development confidence and vocational commitment.

Previous research on the antecedents of commitment also suffers from methodological limitations. Considering that vocational attitudes are affective and cognitive evaluations, they may vary considerably over time in relation to change in work or life events. Psychologists normally do not deem that work commitment and its antecedents are static (Maia et al., 2016). What we know about the relations between the antecedents and career commitment is largely based on cross-sectional studies in which data were gathered using one-shot surveys and relations were examined by analysing interindividual differences (between-person variance) in the independent and dependent variables. One of the major limitations of such studies is that failing to account for variance that occurs within a subject (within-person variance) limits the ability to examine how individuals' career commitment develops over time and justify whether the findings can hold true as time passes, inhibiting research results about causality between variables (see Tremblay, 2021). For this reason, a more nuanced examination of the antecedents of career commitment based on longitudinal data is needed.

Regarding the consequences of work commitment, it has been found to be closely related to organisational outcomes (e.g., work performance) (Afsar et al., 2018), but we are aware of little empirical evidence on the extent to which it is important to individual outcomes, such

as wellbeing. In the hospitality industry, a labour-intensive industry, employees' wellbeing forecasts service interaction quality and in turn the long-term survival of businesses (He et al., 2019). However, due to high rates of work-related injuries and emotional pressure in contrast to other vocations, employees in the hospitality industry have lower wellbeing (Gordon & Shi, 2021), and yet there remains a significant gap in the hospitality literature regarding the antecedents of wellbeing. The present work aims to make contributions to the growing body of employee wellbeing research in the hospitality field by assessing the predictive role of career commitment.

Among the limited longitudinal studies on the outcomes of career commitment, most are time-lagged research in which one's commitment at a given time was used to predict the individual's wellbeing at a later time. Statistically, this method prevents us from accurately observing the explanatory power of the predictor. For instance, even when an individual's current career commitment is high, one might still subsequently experience a sharp decline in wellbeing if current career commitment is considered to be far lower than that in the earlier time period. According to prospect theory (Kahneman & Tversky, 1979), this is because when making judgments about future experiences, individuals take both current perceptions and their past experiences into consideration. As such, in order to address the methodological limitation, there is a need to establish a dynamic model by conceptualising change in career commitment as a distinct construct and examining its effect on subsequent change in wellbeing.

Despite decades of research on career commitment, relatively little is known about its temporal nature. The notion that career commitment is static has led to a literature gap regarding its initial development and later progression (Nägele & Neuenschwander, 2014). In practice, such a lack of understanding is also problematic since practitioners may not be able to set up the right retention strategies at the right time, unless they have a clear understanding of who is prone to experience change in commitment and when such change may happen. Theoretically, career is widely considered a dynamic concept and several career-related constructs, for example, career satisfaction (Spurk et al., 2011) and career planning (Rogers & Creed, 2011) have been extensively investigated using a longitudinal design. It is somewhat surprising that most existing works have only examined career commitment from a static view. The findings of Chang and Tse (2015) and Brown et al.

(2014) have revealed that a considerable portion of hospitality employees leave the industry in their early-career stage. Does this finding suggest that there will be a gradual decline in early-career employees' career commitment as they deal with an occupational environment inconsistent with their former expectations? However, for those hospitality employees who are in later career stages (old-timers) with relatively more experience, competence, and job autonomy, will their career commitment enhance over time? Cross-sectional studies on career commitment from a static perspective are limited in addressing these questions.

Previous research has reported inconsistent findings about the relations between the antecedents and career commitment, suggesting that it would be fruitful to examine what can enhance or attenuate the influence of antecedents on career commitment, yet such boundary conditions have been rarely examined. Due to the lack of longitudinal research, the moderating of time has been largely overlooked by researchers. Given that most vocational perceptions of individuals or group norms change over time (Lee et al., 2016), perceptions of both career commitment and the antecedents may also change as time passes. For example, according to socioemotional selectivity theory (Carstensen et al., 1999), employees in different career stages may have different expectations of family support (an antecedent of career commitment). In other words, the weight employees place on the antecedents may change over time, leading to change in their predictive power. An investigation of whether the effects of the antecedents may change over time thus may offer practitioners a more precise forecast about employees' career commitment. Few cross-sectional works have captured the moderating role of age or tenure (as a proxy of time) (e.g., Ohana, 2014) on the relation between the antecedents and work commitment. Nevertheless, given that the influence of time is a longitudinal phenomenon, their methodologies and findings are deemed relatively unconvincing, leading scholars to call for further research based on repeated measurements (Dobrow Riza et al., 2018).

1.3 Research questions

Cognisant of the gaps in the extant knowledge, and in order to obtain a deeper understanding of hospitality employees' career commitment, this study proposes and examines a longitudinal integrated model of career commitment that includes 1) occupational self-efficacy and family support as antecedents with affective organisational commitment as an

underlying mechanism, 2) wellbeing as an individual outcome and 3) time as a temporal condition. The current work is guided by the following research questions:

The antecedents of career commitment

- RQ1 (a). To what extent can occupational self-efficacy and family support be used to predict career commitment?
- RQ1 (b). How do these antecedents affect career commitment? Does affective organisational commitment mediate their relations with career commitment?

The outcome of career commitment

- RQ2 (a). To what extent can career commitment be used to predict wellbeing?
- RQ2 (b). What role does change in career commitment play in subsequent change in wellbeing?

The influence of time on career commitment

- RQ3 (a). How does career commitment develop over time?
- RQ3 (b). Do the predictive effects of the antecedents on career commitment vary over time?

1.4 Significance of this study

This study aims to make several notable contributions to the existing body of knowledge with respect to hospitality employees' career commitment. First, guided by social cognitive theory (Bandura, 1986) and spillover theory (Crouter, 1984), the present work examines and provides robust evidence for the influence of hospitality employees' occupational self-efficacy and perceived family support on their career commitment, completing existing research (e.g., Chang et al., 2021; Janib et al., 2021) which mainly focuses on the predicting role of job and organisational factors. Additionally, the findings also extend preceding cross-sectional studies by exhibiting such effects at the within-person level.

This research aims to improve our understanding of how and why psychological characteristics and family factors impact hospitality employees' career commitment by examining variables that might intervene in the relations. Informed by signalling theory (Goffman, 1959), this study proposes and verifies affective organisational commitment as the explanatory mechanism through which occupational self-efficacy and family support

contribute to increased career commitment. While a mediating model always entails progressive effects, the majority of empirical studies analyse it using concurrent data (Jose, 2016). In the present study, the mediating effect is tested based on longitudinal evidence to enhance the persuasiveness of the proposed psychological process.

In contrast to previous management research (Afsar et al., 2018) that paid close attention to the influence of commitment on organisational outcomes, the current study aims to empirically extend the consequences to include wellbeing, a salient individual outcome. Building from prospect theory (Kahneman & Tversky, 1979), this study evaluates the dynamic relation between hospitality employees' career commitment and their wellbeing. The findings reveal that apart from current perceptions/levels of career commitment, the magnitude of career commitment change also accounts for profound variance in subsequent change in wellbeing, thereby not only strengthening the predictive validity of career commitment in explaining life satisfaction but also highlighting the importance of taking intra-individual change into consideration in vocational research.

This study aims to sketch a portrait of the developmental pattern of career commitment. Given that for most people, the development of a career is a life-span process in which individuals experience various transitions and play different roles over time (Colarelli & Bishop, 1990), the dynamic nature of career-related constructs has long been stressed, yet this research is the first to examine the influence of time on career commitment. Grounded in the honeymoon-hangover theory (Boswell et al., 2009), it contributes to career research by demonstrating that career commitment, as a vocational construct, indeed significantly varies over time, and the growth trajectory of career commitment can be divergent at different career stages. Such findings serve as a solid empirical foundation for future longitudinal research on similar topics in terms of research design or interpretation of their findings.

This study also explores whether time can interact with other antecedents to indirectly influence career commitment through moderation. While there has been a call for longitudinal research to treat time more flexibly (Lee et al., 2016; Singer & Willet, 2003), this work is the first to examine time as a boundary condition in career research, providing a methodological example for future studies regarding how to maximise the outcomes of multi-wave data. The results regarding change in the magnitude of the antecedents over time

resonate with proceeding studies (e.g., Ohana, 2014) showing that age and tenure play an influential role in the prediction of work commitment. However, present research breaks through the methodological constraints of these previous studies through the use of longitudinal data to more precisely demonstrate how time can strengthen or weaken the relations between the antecedents and career commitment.

Managerially, the longitudinal findings regarding the antecedents offer practitioners interested in retaining and motivating hospitality employees an insight into how to foster positive change in career commitment. The examination of the causal relation between career commitment and wellbeing may help hospitality employees and students better comprehend the importance of developing psychological bonds with their chosen careers. Cognisant of the influence of time on career commitment, this study urges managers to pay close attention to the “hangover” phase of hospitality workers’ careers (in which individuals’ attachment to their careers decreases over time) and tailor HRM practices to the needs of employees at different career stages.

1.5 Definitions of key terms

Career commitment entails an individual’s attitudes toward his/her vocation (Blau, 1985b). Specifically, it can be defined as an individual’s willingness to keep membership in an occupational field (Blau, 1985b; Meyer et al., 1993).

Family support in this vocational research is defined as across-domain social support that an individual obtains from closest relatives in coping with occupational demands and strains (King et al., 1995; Ocampo et al., 2018).

Occupational self-efficacy is the confidence that employees feel regarding how well they can perform in the occupational field with the skills and experience they have (Rigotti et al., 2008).

Affective organisational commitment can be described as an employee’s emotional attachment to the organisation which reflects the extent to which the individual wants to remain in the organisation (Mercurio, 2015; Meyer & Allen, 1991).

Wellbeing is defined as a context-free feeling of enthusiasm, happiness and contentment (Schmutte & Ryff, 1997). It refers to an individual positive judgment of the person's overall life quality (Diener & Emmons, 1985).

1.6 Structure of the thesis

The next chapter reviews extant literature related to the constructs of interest. It begins with a critical discussion of the definitions of career and the perceptions of hospitality careers. The chapter then explicates the conceptualisations of the focal construct, career commitment. This is followed by a comprehensive meta-analytic review aimed at evaluating the relations between career commitment and the antecedents reported by previous empirical studies and understanding how these works were conducted. Based on the findings, the research gaps are presented and the hypotheses are developed accordingly. An integrated research model is then displayed.

Chapter 3 introduces the research paradigm, followed by an explanation of the sampling strategies and the sample size. A detailed description of the procedures involved in the pilot test and formal data collection is provided. The chapter then justifies the measures utilised for each variable and data analysis strategies. The final section discusses the ethical considerations of the current research.

Chapter 4 details the findings of the data analysis. It commences with an introduction of the characteristics of research participants. The results of measurement model tests (i.e., confirmatory factor analysis) conducted using Mplus 8.0 are then provided. The chapter then reports the descriptive statistics of the study variables which are analysed using SPSS 26. The research hypotheses are tested using HLM7 and Mplus 8.0 and the findings are exhibited at the end of the chapter.

Chapter 5 discusses the key findings regarding their research contributions to career commitment literature and implications for hospitality practitioners. The chapter also points out the limitations of the present study along with detailed directions for future research on this topic.

2. Literature Review

2.1 Chapter preview

This chapter examines extant literature relating to the constructs of interest. It commences with an exploration into how careers can be defined and the perceptions of hospitality careers held by researchers and workers. The review then visits the conceptualisations of the focal construct, career commitment. This is followed by a comprehensive review of the antecedents of career commitment. It offers a systematic overview of how the previous empirical studies have been done and a meta-analytic evaluation of the direction, magnitude and heterogeneity of the effect sizes of career commitment's critical antecedents, highlighting the voids in the extant literature that the present study aims to address. Guided by existing studies and relevant theories, the hypotheses of the current work are then established revolving around the antecedents of career commitment (i.e., occupational self-efficacy, family support and affective organisational commitment), the outcome of career commitment (i.e., wellbeing) and the temporal nature of career commitment (i.e., the developmental trajectory of career commitment and the time-varying effects of the antecedents). An integrated research model is exhibited at the end.

2.2 The meaning of careers and hospitality careers

The term “career” has been widely used in managerial and psychological literature and yet there is no consensus on its meaning (Gebbers, 2019). Influenced by the traditional employment mode that workers exchanged labour and compliance with organisational needs for job security and retirement allowance, traditionally, a career was characterised by a lifelong relationship with one firm. Hall and Mirvis (1995) pointed out that another feature of a traditional career was vertical success, climbing hierarchical levels within an organisation “with reference to the social order, and of the typical sequences and concatenations of office” through hard work and years of continuous employment (Hughes, 1937, p.413).

The traditional views of careers have been challenged by many contemporary scholars. This is mainly because these views may not suit the current work world. Due to the rise of

globalisation and the development of new technology, knowledge and skills, the world economy, and industries that comprise it, have been undergoing profound transformations (Son & Kim, 2021). To address the uncertainty associated with change, companies continue to down-size, outsource or layoff staff. That is, while previously employees worked for the employing firm for a long period of time (possibly even until retirement), contemporary workers' lifelong tenure within an organisation is no longer guaranteed (Soke et al., 2022). In this situation, individuals' career development happens across various work experiences, and careers thus should be viewed beyond a single employment context (Mooney et al., 2016). For example, Colarelli and Bishop (1990) defined a career as a succession of discrete but interrelated jobs occupied by an individual in one or more organisations from adolescence to retirement.

Since traditional careers were viewed as a reflection of upward mobility in terms of social order, they were more suited to professional workers (e.g., doctors and teachers) in large companies. In the real world, however, both professionals and non-professional workers (e.g., hairdressers, plumbers, waiters etc) in SMEs (small and medium-sized enterprises) can make progress within their occupations whether through increased salary, recognition, or psychological success (e.g., a sense of pride, self-actualisation, wellbeing) (Arthur, 1994). Contemporary psychologists thus believe that all types of workers can have their careers. For example, Blau (1985b, 1988) defined a career as involvement in a certain occupational field or industry, despite the prestige level of a certain form of work, the social status of the individual, or the skill level needed for the occupation (Brown & Lent, 2013).

The new definitions of careers stimulate different thinking and enhance the richness of the concept of careers. However, they also have attracted criticism regarding their overemphasis on the role of individuals in forming their career journey (Pringle & Mallon, 2003). For instance, Collin (1998) argued that a career does not happen in a vacuum yet it "arises from the interaction of individuals with organisations and society" (p. 412). Thus, a person's perceptions of the current employer could also influence his or her career thinking and behaviour (London, 1983). Despite such constraints, the contemporary perspective of career seems to be more applicable to the modern work world and most occupations (Greenhaus et al., 2009). Consequently, in the present work, when referring to career attitudes (e.g., career commitment), they denote attitudes toward an occupation (i.e., a concatenation of separated

but related jobs undertaken throughout life) or an occupational field rather than to a firm (Blau, 1985b, 1988), and yet attitudes toward the current organisation are also believed to play a neglectable role in forming career attitudes (Lee et al., 2000).

Several scholars hold the view that the relationship that hospitality professionals have with their careers can best be portrayed as a love-hate one (Mkono, 2010). Regarding the favourable aspects, Poulston (2015) believes that it offers a platform to people who love expressing themselves and taking care of others. In their examination of attraction to hospitality work, Brown (2011) found that most respondents mentioned that it provides opportunities to meet new people and cultures. Other enjoyable aspects include energetic and exciting work, closeness that arises out of teamwork, and the opportunity to demonstrate one's creativity (Mkono, 2010; Mooney et al., 2016)

However, careers in hospitality have been labelled as semi-skilled, low-paying (yet both physically and psychologically demanding) and involving long work hours worldwide (Goh & Lee, 2018). According to Riley's (2014) proportionate breakdown of the hospitality workforce, usually over 60% of a hospitality organisation's employees are engaged in unskilled and semi-skilled positions. Compared to sectors (e.g., health, software engineering) with high entry barriers, the hospitality industry has an easy-to-enter character, owing to the fact that many hospitality occupations do not need significant investment in formal education or workplace training (Harkison et al., 2011; Baum, 2008).

Hospitality is among the lowest-paid occupations worldwide with many paid minimum wage or just above minimum wage (International Labour Organisation, 2020; Mooney et al., 2016). In their survey of 21,000 global hospitality employees, Caterer.com (2018) found over two-thirds of these workers planned to leave their job in the near future, and poor pay was a major driver. While low skills linked with the industry may partially explain the poor pay culture, hospitality work is deemed by both scholars and practitioners to be more complex and demanding than a technical one (Baum, 2008). Apart from repetitive physical tasks, hospitality workers also have to engage in emotional labour which is a significant contributor to emotional exhaustion and distress (Amissah et al., 2021); that is, displaying positive and friendly attitudes at all times when addressing customers' needs that can be various, unpredictable or even unreasonable.

To provide efficient service, managers and employees are expected to be visible to customers at all times. Hence, in contrast to a normal vocation (one that typically starts at 9:00 a.m. and ends at 5:00 p.m., 5 days a week), long, unsocial, and unpredictable work hours, including evenings and weekends are common in hospitality (e.g., Filimonau & Mika, 2019; Guo & Ayoun, 2022), which may result in a sense of social alienation. Especially, when returning home after a long shift and facing a young child or a spouse who desires their care and attention, the balance between career and family life is hard to maintain (Zhao & Ghiselli, 2016).

In the extant literature, the aforementioned negative attributes (e.g., low social status, poor pay and long work hours) that cause employees to leave their hospitality job (i.e., high turnover intentions) (Zheng et al., 2022; Zhu et al., 2020) and have been captured by a body of organisational studies, vocational research on the factors that drive employees to stay in hospitality careers is scant. Yes, offering better pay could be a method, but “if the solution is as simple as this, then why has it not happened? The situation is complex.” (Brien, 2004, p.2). A scientific and comprehensive understanding of career commitment and its antecedents thus is needed.

2.3 Career commitment

2.3.1 Career commitment and other types of work commitment

According to Morrow (1983), work-related commitment is composed of organisational commitment, job involvement, work-ethic endorsement and career commitment. Although different types of work-related commitment are linked with each other theoretically, many occupational psychologists have pointed out that career commitment, because of its self-interested nature, is fundamentally distinguishable from others (Hall, 1971). Indeed, the discriminant validity of career commitment from measurements of organisational commitment and job involvement has been captured by a good deal of empirical studies (Gebbers et al., 2019; Lapointe et al., 2019). According to Colarelli and Bishop (1990), in contrast to career commitment, organisational commitment should be viewed as loyalty or emotional attachment to the current working organisation rather than to the vocation.

Moreover, job involvement refers to being committed to a comparatively immediate set of objective work tasks, while career commitment “involves a longer perspective and is related to the subjective (or internal) career envisioned by the individual” (Colarelli & Bishop, 1990, p. 159). For example, Goulet and Singh (2002) stress that an individual can feel committed to a job and not have an emotional attachment to his/her career. An employee may, for example, enjoy a food operation role but not have the long-term plan of choosing cooking as a lifelong vocation. Similarly, work-ethic endorsement entails a person’s ethical beliefs about how well a person should perform his or her job, rather than his or her career (Blau, 1985a).

2.3.2 Conceptualisation and measurement of career commitment

Career commitment is not a new construct. Blau (1985b) defined career commitment as “one’s attitude toward one’s profession or vocation” (p. 278) and initially created a reliable measurement of career commitment that demonstrated discriminant validity from other work commitment concepts (Singhal & Rastogi, 2018). Blau (1985b), employed withdrawal cognitions to explain career commitment; for example, employees with a low degree of career commitment may tend to show a high level of career withdrawal cognitions. One sample item from the measure is “I like this vocation too well to give it up”. Blau's (1985b) results demonstrated that his measurement of career commitment showed a different relation to withdrawal cognitions than measurements of job involvement and organisational commitment. Blau did not, however, empirically and conceptually draw a distinction between career commitment and career withdrawal intentions (Katz et al., 2019).

Meyer et al. (1993) view career commitment as one’s tie to his or her occupation. Drawing from Meyer and Allen's (1991) conceptual model of organisational commitment, Meyer et al. (1993) extended the model to career commitment. As they emphasised, since it is acknowledged that commitment is a complex and multifaceted construct, it is reasonable to argue that employees may develop emotional attachment to their working organisation or career for various reasons. Meyer et al. (1993) divided those reasons into three themes: affective (want to stay), continuance (need to stay), and normative (ought to stay) commitment. Their results showed that these three types of occupational commitment were significantly distinguishable from each other. Nevertheless, Blau (2003) commented that the main weakness of the study of Meyer et al. (1993) was the failure to conduct formal tests to

capture significant differences in associations of different commitment components to other variables in order to provide more robust support for the discriminant validity of each of these three types.

Cognisant of Blau's (1985b) limitations, the main aim of Carson and Bedeian (1994) was to develop a new measurement of career commitment that can conceptually and empirically extricate overlap between career commitment and withdrawal cognitions. Drawing on London's (1983) career motivation theory, Carson and Bedeian (1994) defined career commitment as one's motivation to work in a chosen career (London, 1983). The findings of Carson and Bedeian (1994) provide reliability and discriminant validity evidence for their measure, but the researchers themselves acknowledged that, as with Blau (1985b), their results also exhibited construct contamination (e.g., high correspondence between their measurement and career change intentions).

Blau (2003) praised Meyer et al.'s (1993) contributions toward measuring career commitment, but he questioned whether the dimensionality of career commitment can be further distinguished, especially "whether continuance occupational commitment is unidimensional" (Blau, 2003, p.470). Drawing on Meyer et al.'s (1993) three-type occupational commitment model and Carson et al.'s (1995) career entrenchment measurement, Blau (2003) developed an expanded four-component model of career commitment. In contrast to Meyer et al. (1993), his model further separated continuance career commitment into two forms: accumulated costs and limited alternatives. The longitudinal results of Blau (2003) provided both reliability and validity support for his model (affective commitment, normative commitment, accumulated costs and limited alternatives). One of the limitations with his study is that it does not confirm whether each form was differentially associated with outcomes of career commitment (e.g., career change cognitions) for extra support for the discriminant validity of each of the four components (Blau, 2003).

In sum, while each of the aforementioned conceptualisations or measures of career commitment may have its constraints, they have been those most widely employed, assessed and cited by researchers in vocational research over the past 50 years. Career commitment has been defined and measured in several different ways; however, these scholars share a common view that career commitment refers to an individual's attitudes toward his/her

vocation, an individual's willingness to keep membership in an occupational field and/or an emotional linkage between an individual and their career. In the present work, the researcher's view is in line with that of these vocational psychologists.

2.4 The antecedents of career commitment

This section centres on the antecedents of career commitment. It starts with an introduction of a commonly used overarching theory that serves as a basis for exploring and summarising the antecedents of career commitment. This is followed by a comprehensive review that systematically summarises how and what extant works have been done when examining the antecedents and meta-analytically evaluates the relations between the antecedents and career commitment.

2.4.1 Theoretical foundation

London's (1983) career motivation theory has been one of the most widely utilised theories to provide an overview of the antecedents of career commitment (Opsata, 2020). According to this theory, one's career commitment can be reflected by his or her motivation to stay in the selected occupational area. Specifically, career motivation consists of career identity (i.e., the extent to which one has of himself/herself in terms of career), career insight (i.e., realistic perceptions of career and career goals) and career resilience (i.e., one's resistance to career-related obstacles). Indeed, several vocational psychologists believe that the conceptualisation of career motivation (particular career identity and career resilience) is conceptually consistent with the mainstream definition (e.g., Blau, 1985b) of career commitment (Aryee & Tan, 1992; Goulet & Singh, 2002). Similar to other motivation theories (e.g., Deci & Ryan, 2013; Herzberg et al., 1959), the career motivation theory suggests that the elements influencing career motivation include both individual and situational factors. Some examples are shown and discussed below.

Based on career motivation theory and preceding empirical studies/reviews on career commitment, it has commonly been assumed that individual factors influencing career motivation include demographic characteristics, psychological characteristics, and work attitudes (Jones et al., 2006). For example, age is thought to be positively associated with career commitment since, older workers spend more time and effort on their careers, so they

have better positions and stronger career identity (Katz et al., 2019). Some psychological characteristics are expected to have close associations with an individual's career resilience. Niu (2010) believes that individuals will be more confident to take on challenging tasks and be more perseverant in facing career obstacles if they have high self-efficacy and self-esteem. In terms of work attitudes, many scholars hold the view that employees' affection and affective commitment toward the job/organisation not only further their emotional attachment toward their current employer, but also their identification with their career over the long term (Park & Jung, 2015).

The situational dimension includes job-related factors, organisational factors and social factors. For example, job autonomy is viewed as a component of job resources that can promote task accomplishment, diminish job demands and enhance career resilience (Littman-Ovadia et al., 2013). Career growth opportunities provided by the organisation are also believed to play a critical role in forming career identity. This can be explained by the fact that career growth is a manifestation of the development of professional skills and the realisation of career goals, which will ultimately improve employees' expectations of future career advancement (Weng & McElroy, 2012). Besides job and organisation-related factors, career motivation can also be affected by one's social environment. For instance, career support (e.g., encouragement and understanding) from spouses can help their partners ease the imbalance of family and work roles and enhance the sense of confidence and pride, thereby establishing a strong career identity (Ocampo et al., 2018).

2.4.2 A meta-analytic review

Scholars from a broad range of disciplines (e.g., health, education, public service and hospitality) have empirically investigated the determinants of career commitment (e.g., Azim & Islam, 2018; Klassen et al., 2013; Niu, 2010). Despite the undoubted contributions made by individual studies to the examination of the antecedents of career commitment, their results and methodologies were subject to various constraints. First, as individual studies, most researchers have adopted a partial focus point. This prevents obtaining a comprehensive understanding of the variety of factors boosting career commitment and identifying the key gaps in the extant literature regarding research design. The sampling bias and measurement error that are unavoidable in individual studies have led to some inconsistent or even contrary

results. Such limitations may generate misleading conclusions regarding the direction and magnitude of the associations between the antecedents and career commitment. For example, the work of Niu (2010) revealed a strong correlation of 0.51 between self-efficacy and career commitment, while this correlation was weak ($r = 0.26$) in the study by Chatzistamatiou et al. (2014). Another example is while several studies found a positive relation between organisational commitment and career commitment (Cai et al., 2018; Park & Jung, 2015), a negative linkage was detected by Singh and Gupta (2015).

Given these limitations among individual pieces of research, a meta-analytic review of the extant empirical research is needed. According to Kim and Kao (2014), meta-analysis is not only a systemic review device (e.g., a summary of determinants of a certain construct), but also provides a powerful way in which to address the constraints of individual studies (e.g., measurement unreliability and selection bias) by combining and synthesising the quantitative results of multiple research findings. Meta-analysis has been employed to examine career commitment in the past with Jones et al. (2006) briefly introducing different types of work-related commitment and particularly focusing on the antecedents of career commitment. However, their research did not follow a formal systematic review procedure, nor did it present the magnitude of the corrected effect size of predictors. Another study by Katz et al. (2019) meta-analytically tested only the association between age and career commitment.

To date, the meta-analytic review by Lee et al. (2000) seems to be the first and perhaps the only systematic quantitative synthesis of the myriad determinants of career commitment. In this review, the antecedents were examined based on a review of 76 individual studies. Nevertheless, Lee et al. (2000) only examined whether personal and job-related variables could be applied to predict career commitment and did not take into account the effects of organisational and environmental factors. In sum, the work of Lee et al. (2000) demonstrates the feasibility of performing quantitative reviews of individual works, but their results were based on data from over 20 years ago and failed to provide robust support for a comprehensive model of the predictors of career commitment.

The objectives of the present meta-analytic review are twofold: 1) to systematically review how career commitment and the antecedents have been investigated in the extant literature;

2) to investigate the magnitude, direction, and heterogeneity of the effect sizes of career commitment's critical predictors using meta-analytical techniques.

2.4.2.1 Literature search and inclusion/exclusion criteria

A systematic and iterative search was conducted to identify relevant studies for meta-analysis. Firstly, computer-based searches scanned three electronic databases (EBSCOhost, Web of Science and Google Scholar). Four key terms were used for the searches: "career commitment," "occupational commitment," "vocational commitment" and "professional commitment." To increase efficiency, the researcher limited the search field options to "Title/Abstract." The reference list of each study found through this process that met inclusion criteria was then manually searched to identify additional papers using the same keywords applied in the computerised searches. In addition, following best practices for conducting meta-analytic studies (Hunter & Schmidt, 2004), the researcher also sought to detect as much unpublished research as possible by soliciting information from researcher networks, but without success. However, unpublished dissertations, theses and conference papers obtained from the three databases were retained to lessen publication bias. Data collection ended in October 2019.

To be considered for inclusion, a study must have fulfilled the following conditions:

- a) published after 1980 because, as a construct, career commitment was not theorised until the early 1980s (London, 1983), and the first measurement scale for career commitment was also not established until the same decade (Blau, 1985b).
- b) empirical research, based on either cross-sectional, longitudinal or experimental data, measuring career commitment quantitatively.
- c) measured career commitment with more than one item and with respect to either:
 - 1. overall commitment to a career using the measures proposed by Blau (1985b) and Carson and Bedeian (1994); or
 - 2. different forms of career commitment (e.g., affective commitment, normative commitment, commitment to accumulated career investment) using the measures developed by Meyer et al. (1993) or Blau (2003); or

3. an alternative scale (e.g., self-developed measures) which could be directly mapped onto the conceptual frameworks of the above-mentioned studies and their relevant measurement items.
- d) focused on career commitment and presented a measure of the linkage between career commitment and its predictor(s).
- e) provided correlation coefficients (or any other statistical association that can be converted to an r value) between each determinant and career commitment.

Studies were excluded if they met any of the following conditions:

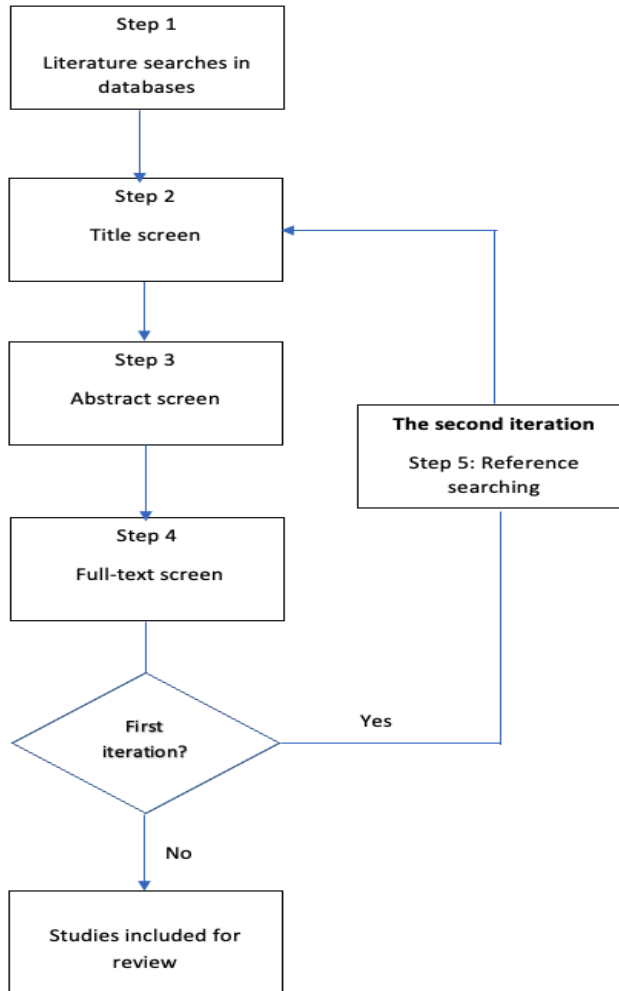
- a) were not written in English;
- b) were secondary research (e.g., reviews, news articles, and editorials);
- c) focused on other types of work commitment (e.g., organisational commitment);
- d) were based on student samples rather than samples of working employees;
- e) failed to report data needed to calculate effect sizes.

2.4.2.2 Study Selection

The process of study selection was based on Ghapanchi and Aurum's (2011) guidelines and is illustrated in Figure 1. In the first selection iteration, Step 1 yielded 3711 potential journal articles, conference papers and dissertations/theses from EBSCOhost (number of studies [K] = 751), Web of Science (K = 609) and Google scholar (K = 2,351). Of this number, 2,757 papers were excluded after screening titles in Step 2 (K = 954). The abstracts of these 954 remaining studies were then reviewed (382 papers were excluded in this step, K = 572). In Step 4, the researcher checked the full text to identify inappropriate studies (470 papers were excluded in this step, K = 102). In sum, the first iteration resulted in 102 studies. The reference lists of these 102 studies were then mined for additional studies (Step 5), and Steps 2–4 were performed again for any that fulfilled the initial selection criteria.

Figure 1

Study Selection Process



In the second iteration, the researcher initially obtained 5,598 studies from the reference lists of the papers remaining at the final step of the first iteration. Of these, 4,871 studies were excluded based on their titles ($K = 727$) in Step 2. Next, after a more thorough review of the abstracts of these 727 articles, 472 studies ($K = 255$) were further excluded in Step 3. By reading the full text, among these 255 papers, only 54 studies were found which met the inclusion criteria (201 studies were excluded in Step 4). In total, the sample in the present review consisted of 156 papers with 102 from iteration 1 and 54 from iteration 2. Among them, the majority were journal articles ($K = 139$). The non-journal studies included seven unpublished dissertations/theses and 10 papers published in conference proceedings.

The study selection process was performed using the inclusion and exclusion criteria described above. While decisions regarding inclusion criteria a, b, d and e were clear-cut, criterion c sometimes needed a judgment call. The supervisors and the researcher worked together to determine whether studies that employed measurements of career commitment other than those of Blau (1985b, 2003), Carson and Bedeian (1994) and Meyer et al. (1993) could be included in the review. Specifically, we made our decisions with respect to criterion c by scrutinising the definition of career commitment described in each work and then discussing if the definition could be mapped onto one of the theoretical models of those studies listed above. In addition, if authors published different studies with the same data set, only the one that applied the larger sample size was included. Most studies that failed to be included in the samples were either qualitative studies, utilised a non-employee sample, or did not clearly report the associations between career commitment and its determinants (e.g., the absence of *r*).

2.4.2.3 Coding Procedure

To maximise efficiency, Microsoft Excel 2019 was employed for recording coded data. The following are the main steps involved in the coding process:

1. Firstly, the researcher coded each study for specific study characteristics, including year of publication, type of publication, source name and research design.
2. Then, the researcher coded the relation between career commitment and the predictor(s) per study. The instrument applied to examine career commitment as well as the instrument(s) used to measure the predictor(s) were also coded for each study.
3. In order to conduct the meta-analysis, statistical information was coded for each individual study, such as sample size, scale reliabilities of all recorded variables and correlation coefficients.
4. Contextual information (e.g., occupational sectors, the country in which the study was conducted) was retrieved from each study.

Special attention was given to the following issues. First, regarding coding the associations between career commitment and the antecedents, the researcher focused on relations for overall career commitment. Consistent with Katz et al. (2019), relations were either directly coded from individual research examining career commitment as an overall construct or

combined from dimension-level (e.g., affective, normative, continuance career commitment) relations utilising composite formulae suggested by Hunter and Schmidt (2004). In both situations, these relations demonstrate the connection between a combination of career commitment components and a given antecedent. When it was found that a study reported a range of sample sizes, the lowest number was documented.

Several samples failed to provide reliability information for career commitment or the antecedents. In these instances, the sample size weighted average reliability was calculated from the remaining studies which employed similar measures and reported information (Lapierre et al., 2018). Consistent with Kim and Kao (2014) and Lapierre et al. (2018), demographic variables (age, education, tenure and years in profession) were taken to be utterly reliable, and therefore a Cronbach's alpha coefficient of 1 was adopted for each demographic variable. Considering secondary sampling error (see Hunter & Schmidt, 2004), in line with Byron (2005), only combined correlations that had been respectively drawn from five or more individual studies were further analysed and interpreted.

2.4.2.4 Data Analysis

Pearson's correlation (r) was applied as the effect size index when combining data across individual studies (see Risco et al., 2019). The mean effect size was initially calculated for each independent and dependent variable combination. In addition, with the aim of obtaining the unbiased correlation (average corrected correlation), effect sizes from the individual studies were aggregated following the meta-analytical procedures outlined by Hunter and Schmidt (2004), since their approach allowed the researcher to correct for sampling error and measurement error (unreliability of the measurement scale) using the Cronbach's alpha values and sample sizes reported in each sample.

The 95% confidence interval (CI) of each corrected effect size was inspected to determine whether the corrected effect was statistically significant. A mean corrected correlation was deemed to be significant if zero was not included in its 95% CI (Hunter & Schmidt, 2004). The magnitude of the associations (corrected effect sizes, ρ) between career commitment and the antecedents was appraised based on Cohen's (1988) criterion, where $|\rho| < 0.3$ is considered of low magnitude, $0.3 < |\rho| < 0.5$ medium, $|\rho| > 0.5$ high. Regarding the

direction of an association, a correlation of $-1 < \rho < 0$ means a negative relation, while $0 < \rho < 1$ indicates a positive relation (Cohen, 1988).

Two methods were employed to examine the heterogeneity of effect sizes. First, for each combination, an 80% credibility interval was calculated to inspect the variance of effect sizes across individual studies attributable to moderators. Whitener (1990) suggested that if a credibility interval is large and includes zero, it is likely that potential moderators are operating in the relation. Following Martincin and Stead (2015) and Risco et al. (2019), the Q-statistics for each corrected correlation were also reported, which illustrated the likelihood of unexplored systematic variance across the studies. When a Q-statistic is significant, evidence is provided that moderators are present (Hunter & Schmidt, 2004).

2.4.2.5 Findings of the present review

The findings below demonstrate a systematic overview (see Table 1) of how the antecedents of career commitment have been studied, and a meta-analytic evaluation (see Table 2) of the associations of career commitment with its antecedents based on studies published between 1980-2019. Several critical gaps in existing career commitment research were identified and summarised.

2.4.2.5.1 Systematic review findings

Over 75% of the samples were from studies published after 2010, indicating that although awareness of career commitment is not recent (1980s), only in the past 10 years have studies of career commitment really gained momentum. This might also reflect that career commitment is worthy of scholarly consideration and has gradually received more investigative attention from contemporary academics. In terms of the measurement scale of career commitment, the studies using Blau's (1985b) (28%), Meyer et al.'s (1993) or Carson and Bedeian's (1994) scales made up 50% of the total studies. Blau's (1985b) career commitment measurement scale was the most frequently used measure among the samples, with a high average reliability score. This offers the present study a valuable reference when designing the instrument for measuring career commitment.

Table 1*Summary of Systematic Review Findings*

Aspect		No. of studies	Percentage
Publication year	1980-1989	6	4%
	1990-1999	12	7%
	2000-2009	20	13%
	2010-2019	118	76%
Industry	Education	45	29%
	Health	37	24%
	Finance	11	7%
	Public service	10	6%
	Hospitality & tourism	8	5%
	Other or unspecified	45	29%
Region	Eastern	71	45%
	Western	57	37%
	Other or unspecified	28	18%
Research type	Cross-sectional	147	94%
	Longitudinal	9	6%
Measurement scale of career commitment	Blau's (1985a) (α Mean = 0.80)	43	28%
	Meyer et al. (1993) (α Mean = 0.81)	18	12%
	Carson and Bedeian (1994) (α Mean = 0.81)	17	10%
	Other	78	50%
Research design	Direct effect	116	74%
	Mediation	21	13%
	Moderation	22	14%
	<i>Note: Three studies examined both mediators and moderators.</i>		
Outcomes of career commitment	Individual-related (e.g., vocational attitudes)	13	8%
		35	23%
	Organisation-related (e.g., job performance)	109	70%
	No outcomes		
	<i>Note: One study examined both individual- and organisation-related moderators.</i>		

There was a roughly even distribution of study regions between Eastern and Western countries. However, the studies included in the review showed a strong bias toward employees from the educational and healthcare sectors (50% in total). Thus, while the current review meta-analytically analysed the relations between the antecedents and career commitment, the findings might not apply to all kinds of occupational samples. Given that the studies on hospitality and tourism employees were less than 10 (5%), there is a need for further empirical investigations of career commitment in the hospitality industry.

With respect to research type, the great majority of the reviewed studies were cross-sectional studies (94%), and only nine longitudinal studies (6%) were included in the sample. In other words, most studies examined the antecedents of career commitment from a between-person perspective. Such a considerable shortage of longitudinal studies prevents us from drawing any causal inferences for the effect estimates reported in Table 2. Besides, given that all these longitudinal studies adopted a cross-lagged design, the developmental trajectory of career commitment is unknown. More works, therefore, are required to scrutinise career commitment using longitudinal data.

Approximately 30% of the included studies explored both antecedents and outcomes of career commitment. As a work-related construct, it is not surprising to see that most of them examined the influence of career commitment on organisational outcomes, such as job performance (Bakan et al., 2014), turnover intentions (Duffy et al., 2011; Weng & McElroy, 2012) and team commitment (Singh & Gupta, 2015). However, career has long been deemed a vital part of life, and many researchers have found that career development has neglectable influence on humans' physical (Russo et al., 2014) and mental health (Gan & Cheng, 2021). A further study with more focus on individual outcomes of career commitment should therefore be encouraged.

2.4.2.5.2 Meta-analytic review findings

The researcher aggregated data from 156 studies (cumulative sample size $[N] = 58,651$) to investigate the correlations between the antecedents and career commitment, and the results of the meta-analysis are presented in Table 2.

Table 2*Antecedents of Career Commitment*

Factors	<i>k</i>	<i>N</i>	<i>r</i>	ρ	<i>SDρ</i>	95% CI	80% CR	<i>Q</i>
• Individual factors								
<u>Demographic</u>								
Age	41	18778	0.04	0.04	0.58	[0.03, 0.06]	[-0.22, 0.32]	726***
Gender	28	12026	0.01	0.01	0.60	[-0.01, 0.03]	[-0.18, 0.20]	243***
Marital status	12	6001	-0.01	-0.01	0.62	[-0.04, 0.02]	[-0.26, 0.23]	206***
Education	20	9337	0.06	0.07	0.54	[0.05, 0.09]	[-0.12, 0.25]	191***
Tenure	20	9778	-0.04	-0.06	0.68	[-0.07, -0.03]	[-0.37, 0.28]	546***
Positions	10	3696	0.20	0.22	0.41	[0.18, 0.25]	[0.04, 0.39]	72***
Years in profession	16	6261	0.17	0.19	0.44	[0.16, 0.21]	[-0.02, 0.38]	152***
<u>Psychological characteristics</u>								
Self-efficacy	25	10,155	0.42	0.49	0.21	[0.47, 0.51]	[0.30, 0.68]	268***
<u>Attitudes toward job and organisation</u>								
Job motivation	8	1608	0.33	0.40	0.29	[0.35, 0.45]	[0.14, 0.65]	66***
Job involvement	10	2129	0.33	0.40	0.41	[0.38, 0.47]	[-0.07, 0.96]	266***
Job satisfaction	40	14,520	0.46	0.54	0.23	[0.53, 0.55]	[0.27, 0.81]	916***
Organisational commitment	37	14,367	0.45	0.52	0.24	[0.51, 0.54]	[0.23, 0.83]	918***
• Situational factors								
<u>Job-related</u>								
Work-life balance	5	2178	0.26	0.31	0.32	[0.26, 0.35]	[0.21, 0.40]	16**
Autonomy	10	4370	0.32	0.38	0.28	[0.35, 0.42]	[0.26, 0.52]	49***
Workload	5	3255	-0.23	-0.28	0.82	[-0.32, -0.24]	[-0.51, -0.03]	90***
Job insecurity	7	2332	-0.11	-0.14	0.70	[-0.18, -0.08]	[-0.29, -0.03]	33***
Work stress	13	6728	-0.25	-0.29	0.85	[-0.32, -0.27]	[-0.50, -0.09]	163***
Supervision support	10	3072	0.29	0.33	0.32	[0.30, 0.38]	[0.17, 0.52]	58***
<u>Organisational</u>								
Organisational career growth	13	5232	0.43	0.52	0.22	[0.49, 0.55]	[0.29, 0.76]	198***
Organisational support	11	3902	0.27	0.33	0.37	[0.28, 0.35]	[-0.03, 0.64]	249***
Pay	9	5904	0.15	0.19	0.46	[0.15, 0.21]	[-0.05, 0.40]	140***
<u>Family factors</u>								
Family support	7	5334	0.25	0.29	0.35	[0.26, 0.32]	[0.08, 0.50]	127***

Note. *k* = number of studies, *N* = cumulative sample size, *r* = mean correlation, ρ = average corrected correlation, *SD ρ* = standard deviation of ρ , CI = confidence interval, CR = credibility interval, *Q* = *Q*-statistic

The meta-analysis of the relations between other types of work commitment and career commitment offers insights into the nature of career commitment. In accordance with several previous meta-analytic studies on work commitment (Brown, 1996; Lee et al., 2000; Mathieu & Zajac, 1990), the results of the present study indicate that career commitment positively correlated with job involvement ($\rho = 0.40$) and organisational commitment ($\rho = 0.52$), but the effect sizes were less than 0.7. This finding further supports the idea of Hall (1971) that while divergent forms of work commitment may be associated with each other, career commitment is different from others.

Drawing on London's (1983) career motivation theory, and consistent with Aryee and Tan (1992) and Goulet and Singh (2002), the determinants of career commitment from the included samples were summarised and then categorised into two domains: individual factors and situational factors. Most meta-analysed relationships were statistically significant since zero was included in their 95% confidence intervals, providing support for career motivation theory. Regarding the individual factors, while the influence of several demographic factors (e.g., age and gender) was frequently investigated, in line with the literature (see Katz et al., 2019; Weng & McElroy, 2012), this study only revealed weak associations ($\rho < 0.25$) between them and career commitment. While a considerable amount of literature explored the effects of individuals' attitudes toward jobs and organisations on career commitment, few studies took psychological characteristics into consideration. Similarly, among the situational factors, a majority of studies centred on job- or organisation-related factors and publications on the effects of family factors remained few.

It is also interesting to see that, whereas most relations in the present meta-analytic review were significant, some factors (e.g., family support $\rho = 0.29$) showed weak associations with career commitment. Such results suggest that the effects of these factors on career commitment may not be direct but mediated by other variables, particularly those with a large effect size (e.g., organisational commitment, $\rho = 0.52$). The majority of the included studies (74%) were mainly restricted to direct relations, providing limited insights into the causal mechanism that elucidates how and why the antecedents may influence career commitment. Hence, there is abundant room for further exploring mediators that explain the psychological process underlying the relationships between the antecedents and career commitment.

A considerable heterogeneity (see Q-statistics in Table 2) was found for most of the examined relations between career commitment and its antecedents. This can be viewed as an indication that some variables that moderate the effects of these antecedents exist. However, the results show that there were very few empirical investigations (14%) into the latent moderators. And among these studies, many of them applied gender (e.g., Major et al., 2013), cultural background (e.g., Klassen et al., 2013) or personality (e.g., Arora & Rangnekar, 2015) as moderators and an understanding of other types of moderators (e.g., time factors) is still lacking. There is therefore a compelling need for research to further consider boundary conditions that accentuate or attenuate career commitment.

2.4.2.5.3 Conclusion

A systematic and meta-analytic review of the extant literature indicates that while there have been a number of studies on the antecedents of career commitment, these works are subject to at least the following limitations that the present study attempts to address. First, there is growing concern about employees' career commitment but there has been little detailed investigation of career commitment in the hospitality context. While the impact of individuals' work attitudes and job situational factors on career commitment have been well-examined, the effects of psychological characteristics (e.g., occupational self-efficacy) and family-related factors (e.g., family support) have rarely been investigated. A deeper understanding of how the antecedents contribute to career commitment through mediation analysis is still lacking. Even fewer studies have explored whether the antecedents and mediators influence career commitment over time.

Limited works have examined both antecedents and consequences of career commitment in an integrated model, and even less attention has been placed on individual outcomes of career commitment. Additionally, there is much less longitudinal information about the influence of time on career commitment. For example, the developmental trajectory of career commitment is unknown. We understand little about the role of time as the boundary condition of the relations between the antecedents and career commitment.

The review of extant literature to this point reveals that there is a compelling and urgent need to explore hospitality employees' career commitment. The next section develops hypotheses

that portray the research framework of the present study in light of the insights from the meta-analytic review and findings of previous empirical studies.

2.5 Hypothesis development

Informed by career motivation theory (London, 1983) and based on the meta-analytic review of extant career commitment studies, the following hypotheses are developed and investigated in order to get a more comprehensive and detailed understanding of hospitality employees' career commitment. Specifically, the hypotheses revolve around the following aspects: a) examining two important but less studied antecedents (i.e., occupational self-efficacy and family support) of career commitment as well as the mediating role of affective organisational commitment, b) investigating a vital individual outcome (i.e., wellbeing) of career commitment, c) exploring the influence of time on career commitment (i.e., the developmental trajectory of career commitment and the moderating role of time on the relations between the antecedents and career commitment).

2.5.1 The antecedents of career commitment

2.5.1.1 Occupational self-efficacy

Since consumers vary in their expectations which are often vague and changeable (Qiu et al., 2020), boundary-spanning workers who directly interact with customers are expected to exhibit a “can do” attitude and flexibility in resolving service issues under uncertain and unfamiliar circumstances (Raub & Liao, 2012). However, given that it is difficult to forecast what potential conflicts or risks may occur with consumers in a fast-paced work environment (Wang et al., 2022), service failures and customer mistreatment are inevitable for hospitality employees. It is not surprising, therefore, to see some service workers exposed to high tension at work often undergo emotional exhaustion (Teoh et al., 2019), become irritable and depressed (Hwang et al., 2021), and in turn express low occupational commitment (Etehad & Karatepe, 2019; Ibrahim et al., 2019). Considering the environment in which hospitality employees work is unpredictable, complicated and stressful, recruiting and retaining employees who have strong career resilience (being confident, persistent, and committed to the chosen career, see London, 1983) has become an important task for hospitality human resource managers to sustain service quality and customer satisfaction (Etehad & Karatepe,

2019). Employees who are high in occupational self-efficacy can meet the above-mentioned criteria.

Unlike the big five traits (Niu, 2010), self-efficacy is not a type of personality but a self-judgment about one's capabilities to take control over their emotions, motivation and behaviour to form the reality in the fashion they desire (Wang et al., 2022). Bandura (1977, 1986) defined self-efficacy as one's beliefs in their ability or competence to perform an act or cope with an unexpected challenge. In a similar vein, Rigotti et al. (2008) further depicted occupational self-efficacy as the confidence that employees feel regarding how well they can perform in the occupational field with the skills and experience they have.

In his social cognitive theory, Bandura (1986) emphasised that individuals' attitudes and behaviour can be significantly incited by self-influence. Specifically, before doing a given task, people first cognitively process the challenges related to such a task and then consider their abilities to deal with the challenges. Hence, people are likely to evade or renounce tasks sensed as going beyond their abilities while they are willing to accept and carry out tasks they feel they can handle (Bandura, 1977, 1986).

Grounded in social cognitive theory (Bandura, 1986), it is deemed that occupational self-efficacy can determine how much effort people want to put into pursuing their careers and how long they can persist when facing difficulties. Even with the same level of career expertise employees may demonstrate different attitudes toward their careers, contingent on whether their self-assessment of efficacy improves or diminishes their enthusiasm. For instance, one may argue that people high in occupational self-efficacy may feel more confident in their career choice, devote more effort and be more persistent and optimistic (Clements & Kamau, 2018; McLennan et al., 2017).

Indeed, a wealth of research has identified the beneficial impact of occupational self-efficacy, as a vital personal resource, on individual career-related outcomes. First, occupational self-efficacy has been found to predict proactive career attitudes and behaviour. For example, Hartman and Barber (2020) discovered that people high in occupational self-efficacy expressed more desire to advance their careers (i.e., career aspirations). In addition, in their study of 634 university graduates in Germany, Hirschi and Jaensch (2015) found that self-

efficacious individuals engaged in more career engagement behaviours (e.g., gathering information about career advancement opportunities in the desired field). Rudolph et al.'s (2017) meta-analytic review of a total of 90 occupational studies revealed that occupational self-efficacy had a significant and positive effect on career adaptability.

Based on a total of 555 full-time workers from a broad range of sectors, Park and Jung (2015) detected that self-efficacious employees were more likely to have higher emotional attachment toward their occupation. The prohibitive effect of occupational self-efficacy on withdrawal intention was also found in this study. The relation between occupational self-efficacy and career success has also been well-examined and confirmed. For example, both Abele and Spurk (2009) and Hirschi and Jaensch (2015) detected that occupational self-efficacy boosted not only salary (objective career goals, e.g., good pay) but also subjective career satisfaction (subjective career goals, e.g., self-actualisation and self-esteem).

In hospitality research, while the effect of self-efficacy on job behaviour has been extensively examined (Kale, 2020; Qiu et al., 2020; Wang et al., 2022), inadequate attention has been applied to the influence of occupational self-efficacy on career-related outcomes; particularly, the impact of hospitality workers' occupational self-efficacy on their career commitment is understudied. Drawing on the aforementioned findings and informed by social cognitive theory (Bandura, 1986), it is believed that the more occupational self-efficacy hospitality employees have, the more proactive career behaviours they would engage, leading to greater career achievements and stronger emotional attachment to the chosen field (Park & Jung, 2015). When employees are high in occupational self-efficacy, they may consider negative workplace events or challenges as temporary and manageable; they are thus more likely to continue to pursue their occupational goals (Wang et al., 2022). However, for those employees with low occupational self-efficacy, they may consider challenges as obstacles and disincentives and are therefore more likely to withdraw from their careers.

The results of the meta-analysis of the current study also indicated that self-efficacy ($\rho = 0.49$) was one of the strongest predictors among career commitment antecedents. The researcher deems that hospitality professionals with more occupational self-efficacy would have more willingness to set occupational goals, constantly develop vocational skills and stay

in the interested field to pursue their careers even when facing obstacles. Therefore, the following hypothesis was proposed:

H1: Occupational self-efficacy is positively related to career commitment.

2.5.1.2 Family support

According to a report from the University of Central Florida (2021), around only 30% of hospitality employees believed that they had a good work-life balance. Compared to workers in other industries, many hospitality professionals have to work in shifts and get busier during weekends and public holidays, reducing the time they can spend with family members (Liu et al., 2022; Zhao, 2016) and, in turn, causing high role stress and staff turnover. Professionals in non-service sectors may telecommute to decrease their time apart from their family members, but this is nearly impossible for most hospitality employees whose job involves extensive face-to-face customer service (Xu & Cao, 2019). In addition, influenced by traditional gender assumptions, women are expected to shoulder more household duties (García-Cabrera et al., 2018). Considering the rise of dual-earner families and there are more female employees in the hospitality workforce globally, work-family issues thus require extra attention.

Several theoretical frameworks have pointed out that there is an interdependent relationship between family and work, such as ecological systems theory (Bronfenbrenner, 1992) and spillover theory (Crouter, 1984). In particular, according to role scarcity theory (Goode, 1960) and Herzberg's motivation theory (Herzberg et al., 1959), work-life balance is one of the most prominent factors that drive employees to leave their jobs or even their careers. Creating healthy interactions between family and work with the aim of retaining staff has increasingly become a hot topic in hospitality research. Social support has been proposed as a major contributing element to facilitating such healthy interactions by several meta-analytic review papers (Lapierre et al., 2018; Xu & Cao, 2019). The present work focuses on the influence of social support from the family domain which is inherently essential yet far less investigated in previous research in comparison with social support from the work domain (e.g., supervisor support and organisational support).

The notion of family support originated from the social support literature. Generally, social support can be viewed as comfort, help and support provided to individuals through formal or informal social contacts with other individuals or groups, enabling individuals to handle challenges and stress in their social roles (Hobfoll, 1988). Some scholars also see it as one's subjective belief that the individual is appreciated, valued, cared for and a fellow of a network of mutual obligation (Cobb, 1976). Social support entails the exchange of tangible or intangible resources between minimal two parties, in order to aid the individual who gets the assistance. Social support can be offered to people from a wide range of sources, such as formal sources (e.g., community organisations), informal or natural sources (e.g., family members), and work-related sources (e.g., supervisors and co-workers) (French et al., 2018). According to House (1981), emotional support and instrumental support are the two major types of social support that are widely believed as most inclusive and representative. While emotional support refers to the demonstration of love, empathy, respect and care for other people, instrumental support entails tangible help, such as the provision of resources (e.g., money), tasks assistance (e.g., time and energy) or problem-focused practical help (e.g., medical care).

In vocational settings, family support is defined as across-domain social support that an individual obtains from closest relatives in coping with occupational demands and strains (King et al., 1995; Ocampo et al., 2018). As a category of social support, family support can also be divided into two styles: emotional family support and instrumental family support. Emotional family support can be regarded as supportive listening, compassion and encouragement given by family members which allow an individual to emotionally overcome a changeling occupational episode. In contrast, instrumental family support refers to tangible aid (e.g., assistance with childcare) received from family members which enables the recipient of support to concentrate on career pursuit.

Spillover theory (Crouter, 1984) provides an insight into why social support (e.g., family support) may have critical influence on one's profession. The theory suggests that employees intra-personally transmit the feelings and behaviours which they generate at the workplace into their off-work life and vice versa, implying that work world and family life have a spillover impact on each other in a circular way. Such spillover effect can be either positive or negative (Lawson et al., 2013; LeDoux et al., 2020). For example, when an employee is

struggling with childcare in the family domain, the worker may have to put less effort into his or her career, and in this case, issues are likely to occur in the workplace associated with depressed mood and low affection toward the chosen career, which may be in turn carried over into the family domain (García-Cabrera et al., 2018). In contrast, without heavy home demands, an individual may have more energy to shoulder duties at work, leading to decreased work strain and enhanced career satisfaction, thereby further improving the worker's wellbeing in the family domain (Sirgy et al., 2020).

Results from several works suggest that there is a significant relation between family support and career outcomes. Fouad et al. (2016) analysed data from 136 US respondents and 377 Indian respondents and detected that family support had significant influence on work values and occupational engagement for both populations. Such findings were further supported by Jenkins and Jeske (2017) who surveyed 281 undergraduate students and found the predicting role of career support from family in young adults' occupational engagement. Moreover, both Ocampo et al. (2018) and Amin et al. (2017) identified that spousal understanding was effective in helping employees achieve work-life balance, leading to more positive attitudes toward their chosen careers (e.g., subjective career success).

The meta-analysis of the present study also demonstrated that family support was positively correlated with career commitment ($\rho = 0.29$). Taken together, reflective of spillover theory (Crouter, 1984), the researcher believes that instrumental family support (e.g., assistance with household activities) would offer an individual more time and vigour to concentrate on proactive career behaviours (e.g., development of career expertise), preventing the worker from feeling weary and overwhelmed with family duties (Ocampo et al., 2018). Besides, drawing on career motivation theory (London, 1983), it is also believed that emotional support (e.g., spousal encouragement for pursuing career goals) received from family members can facilitate the development of one's career identity and occupational self-esteem, providing the worker with more faith and passion to conquer the career obstacles one is facing (Clarke & Ravenswood, 2019). Family support thus should have beneficial impact on hospitality employees' career commitment. Therefore, it is predicted that:

H2: Family support is positively related to career commitment.

2.5.1.3 The mediating role of affective organisational commitment

A comprehensive systematic and meta-analytic review of the antecedents of career commitment shows that the influence of employees' attitudes towards their job/organisation is perhaps one of the most thoroughly examined issues in the career commitment literature, and such attitudinal factors demonstrated relatively strong effect sizes in the meta-analysis. Indeed, several studies (Cai et al., 2018; Nazish et al., 2013; Wang et al., 2016) have revealed that the relationship between affective organisational commitment and career commitment is strong ($r > 0.5$).

This provides a hint that, compared to other antecedents, employees' attitudes towards their current employment relationship are more closely related to career commitment and may play a mediating role between other antecedents and career commitment. In a study of 302 hospitality and tourism undergraduates, Song and Chon (2012) found that respondents' self-efficacy had significant influence on their attitudes toward the current job, which in turn affected their intention to pursue their careers in the hospitality industry. Liu et al.'s (2020) research revealed that organisational commitment played an intermediary role between the work-family balance and career advancement. Drawing on these findings, the current work thus suggests a model representing the linkage mechanism of occupational self-efficacy and family support strengthening hospitality workers' emotional bonds with the organisation, which may in turn enhance their career commitment.

2.5.1.3.1 The relation between affective organisational commitment and career commitment

Although talent management is applied by firms to achieve business objectives, it is important to keep in mind that employees enter organisations to realise their own career aspirations (Panda & Sahoo, 2015). While some researchers argue that an individual's loyalties toward his/her employer and career may conflict under certain circumstances (e.g., English, 2008), others hold the view that there is a substantial likelihood that organisational commitment and career commitment are compatible and may develop simultaneously based on common experiences at work (Lee et al., 2000; Mathieu & Zajac, 1990). Drawing upon signalling theory (Goffman, 1959) and career motivation theory (London, 1983), the

researcher believes that it is possible for managers to boost hospitality employees' career commitment by enhancing their emotional attachment to the organisation.

According to Porter et al. (1974), organisational commitment can be viewed as the bond a worker has with the employer, which mirrors devotedness and obligation to the organisation. From a psychological perspective, Mathieu and Zajac (1990) defined it as the degree to which an individual identifies with a group or an organisation. Meyer and Allen's (1991) three-component model has been one of the most famous and widely used theoretical frameworks to conceptualise organisational commitment. The model suggests that organisational commitment consists of three dimensions: affective commitment (i.e., the extent to which employees feel they want to remain in the organisation); normative commitment (i.e., the extent to which employees feel they should not leave the organisation); and continuance commitment (i.e., the extent to which employees feel they have to stay in the organisation to avoid costs related to leaving the employer). The model portrays organisational commitment as a willingness to devote loyalty (affective commitment), a sense of moral obligation (normative commitment) and an evaluation of gains and loss (continuance commitment) (Meyer et al., 2002).

A body of works including several meta-analyses (e.g., Meyer et al., 2002; Solinger et al., 2008) have found that among the three components, affective commitment leads to a wider range of vocational outcomes and has stronger predictive power. It is not surprising to see such findings because affective commitment is the only component that reflects a mindset of enjoying being a member of the organisation whereas other components are more related to perceptions of the consequences of leaving the current employer (Gyensare et al., 2016). Due to considerable inconsistency in findings regarding the validity and predictive power of normative and continuance commitment, some scholars recommend not to utilise them as indicators of organisational commitment (see Solinger et al., 2008). Based on a comprehensive and systematic review of studies on different types of organisational commitment, Mercurio (2015) also argues that affective commitment should be considered as the essence of organisational commitment in contrast to normative and continuance commitment. Consequently, the present work concentrates on affective organisational commitment (i.e., psychological attachment to an organisation) as a better indicator of organisational commitment.

The rationale behind the assumption that affective organisational commitment is positively related to career-related outcomes can be captured in several theories, such as signalling theory (Goffman, 1959). This theory is mainly concerned with communications between employees and establishments, which posits that there is usually an information asymmetry between an employee and a larger entity. And it is believed that signalling can reduce such asymmetry between two parties since it helps the signal receiver to better interpret the characteristics of the signal giver. Logically, when hospitality employees have inadequate knowledge about their careers, they may need signals to interpret and forecast it (Chang & Busser, 2019). In such a case, their experience at the present workplace can be regarded as a key signal to infer their future careers. Those who experience positive emotions at work and enjoy being a member of the organisation are anticipated to have more willingness to work hard and make more professional achievements and thus will more likely build a strong occupational identity and believe that having a career in the current field is promising (London 1983; Yoo et al., 2019). The recency effect is another theory (Miller & Campbell, 1959) which also suggests that the most current job may have the greatest influence on future career development confidence.

A few works have detected the influence of organisational commitment on career-related outcomes. Both Khodabakhshi (2013) and Garland et al. (2014) found that when employees demonstrated high levels of affective organisational commitment, they reported less occupational stress. Moreover, Yoo et al.'s (2019) research on 124 nurses revealed the important role that organisational commitment played in determining work satisfaction and forming career identity. Besides, Shieh (2014) discovered that if employees in the catering industry were more attached to the organisation, they were more likely to express affection toward their careers. Such a finding was supported by a later study by Moon and Choi (2017) who also captured the positive association between organisational commitment and career satisfaction. Using partial least squares path modelling in a study of 133 employees in the manufacturing industry, Ahmed (2019) found that the stronger emotional bonds an employee had with the organisation, the more emotional attachment they exhibited toward their careers. Based on the foregoing, it is hypothesised that affective organisational commitment will be positively associated with career commitment.

2.5.1.3.2 The antecedents of affective organisational commitment: Occupational self-efficacy and family support

Given that job turnover rates are notoriously high in the hospitality sector (Park & Min, 2020), hospitality managers have been asked to come up with strategies for talent retention with the aim of boosting workplace morale, increasing productivity and delivering high-quality services (Koo et al., 2020). According to Kazlauskaite et al. (2006), from some managers' perspectives, turnover issues to a large extent can be considered intractable and deep-seated issues for the industry because of macro-economic and social reasons, so they should not be responsible for such turnover problems. Numerous pieces of evidence show that a noteworthy number of hospitality workers have a solid and stable employment relationship. For example, Zia et al.'s (2022) survey of 252 hospitality employees in Pakistan found that more than 40% of respondents had six to 12 years of organisational tenure and around 15% had been with the same employer for around 20 years. Similar findings can also be found in Yam et al. (2018). These findings reveal that it is necessary for both researchers and practitioners to examine the factors influencing hospitality employees' emotional attachment to the organisation.

Goal directed theory (see Perugini & Bagozzi, 2001) indicates that the behaviour of a human is shaped by one's internal motivation (i.e., desire) to perform the behaviour. According to social cognitive theory (Bandura, 1986), individuals' self-beliefs in their competence significantly affect the extent of their internal motivation. Occupational self-efficacy thus determines how much time and effort one is willing to invest in work (Park & Jung, 2015). Specifically, individuals who are confident in their work competence may have stronger intrinsic job motivation and set higher performance standards, so they are anticipated to experience more sense of achievement at work, thereby having more emotional attachment to their job. In contrast, less self-efficacious employees who do not believe in their ability to satisfy their job requirements would experience more anxiety and helplessness and put less effort into work tasks (Law & Guo, 2016). Therefore, such employees who are expecting failure in their endeavours are expected to be less committed to their job responsibilities, derive less self-actualisation and meaningfulness from their job and develop fewer emotional bonds with the organisation.

A considerable amount of empirical research has examined the positive influence of occupational self-efficacy on work attitudes and behaviours. Based on data from 102 individual studies conducted with over 426,000 teachers in 50 regions, Kasalak and Dağyar's (2020) meta-analysis demonstrated that there was a statistically significant and positive relation between self-efficacy and affection toward the job. In a recent work, which concentrated on Turkish hotel managers' self-efficacy, Kale (2020) found that the higher self-efficacy the managers had, the better the job performance they exhibited. Besides, in a large study conducted on 318 hotel employees in Korea, Yu et al. (2020) showed that self-efficacious workers were inclined to express lower turnover intention. Such an inhibitive effect on turnover intention was also detected in a study conducted in small and mid-sized tourism companies in China (Khan et al., 2021). Adopting a three-wave time-lagged design, Ashfaq et al. (2021) surveyed 211 employees from various sectors and found that self-efficacy significantly predicted organisational commitment. Based on the above discussion, the researcher believes that occupational self-efficacy will be positively related to affective organisational commitment.

According to spillover theory and Clark's (2000) work-family border theory, there is no boundary between the work world and family. Thus, drawing upon the social exchange theory (Homans, 1961), it is deemed that when employees receive support and help from the family domain, they would express positive attitudes and behaviours toward both family and job in return. Emotional support (e.g., compassion and empathy) from family gives service workers a haven to be themselves and evade emotional labour, allowing them to refresh and be better to cope with daily job demands (Zhou et al., 2020). Lambert et al. (2016) believe that having emotional support (e.g., reassurance and encouragement) from family also helps in diminishing anxiety from work and triggering a sense of pride, thereby enabling workers to view their employer in a favourable light.

Besides, those who obtain instrumental support from family are believed to have more energy and enthusiasm in dealing with challenging work tasks and taking advancement opportunities, leading to more job involvement and stronger connections with the organisation (Lambert et al., 2016). On the contrary, when employees feel it hard to get understanding and instrumental help from family members, they are less likely to achieve work-life balance and put their "hearts" into their job, leading to poor job performance and low affection toward

the job. Such employees are inclined to express more negative attitudes when facing workplace difficulties and subsequently, emotionally withdraw from job duties and the organisation (Chen et al., 2018).

A great number of studies have shown associations between family support and organisational outcomes. Mansour and Tremblay (2016) employed a time-lagged design to examine the influence of family support. Utilising a sample of 258 hospitality employees, the scholars found that the more support employees obtained from family, the less job stress they felt. In order to test whether family support was positively related to organisationally valued outcomes, Karatepe et al. (2019) gathered multi-wave data from 141 frontline employees in the Russian banking industry. As they reported, family support enhanced work engagement, thereby boosting better job performance (both in-role and ex-role performance). In addition, Karatepe's (2015) research conducted with 133 hotel employees in Turkey also revealed that when individuals received sufficient support from family, they tended to have more work engagement and were less likely to leave their employer.

A large quantitative study by Huffman et al. (2014) surveyed over 5,000 employees and reported that spousal support was positively correlated with job satisfaction and negatively linked to job turnover intention. Similarly, a study by Zhou et al. (2020) offered a recent investigation of the effect of family support on employees' emotional attachment toward the organisation. Based on quantitative data from 1121 employees in China, the researchers found that family support reduced employees' turnover intention by improving their organisational commitment.

In summary, it is hypothesised that occupational self-efficacy and family support would enhance hospitality employees' affective organisational commitment, which in turn improves their career commitment. Therefore, the following two hypotheses are advanced:

H3 (a): Affective organisational commitment mediates the relation between occupational self-efficacy and career commitment.

H3 (b): Affective organisational commitment mediates the relation between family support and career commitment.

2.5.1.4 Between- and within-person perspectives

Examining relationships among constructs is fundamentally important in applied psychology (Wang & Maxwell, 2015). Cross-sectional studies (e.g., Ahmed, 2019; Akbiyik, 2016; Niu, 2010) on the antecedents of career commitment have predominantly explored between-person variation to demonstrate that, on average, employees who are above average on one factor are likely to show more/less emotional attachment to their careers. In such studies, a large number of employees are surveyed at the same time. Divergences in employees' vocational attitudes and behaviour can then be linked to their attributes to investigate between-person variation. Such research design is unable, however, to address questions about within-person psychological processes and more importantly, longitudinal relations (Wang & Maxwell, 2015).

Within-person research based on longitudinal data can be used to answer questions related to how psychological characteristics which change within a person may influence the individual's attitudes and behaviour over time (Galla et al., 2014). For instance, a within-person relation can tell us the extent to which an employee will become more/less committed to his/her career (i.e., variability in career commitment) when there is an increase/decrease in his occupational self-efficacy or perceived family support.

Many psychological theories include assumptions from a within-person (longitudinal) perspective. For example, according to social-cognitive theory (Bandura, 1986), social cognition is a within-person process that develops over time as individuals evaluate the challenges related to a task, consider their abilities to deal with the challenges and then put in effort to solve the challenges. An employee will devote more time and energy to career when the person has higher occupational self-efficacy than when the individual does not. In such a case, utilising within-person design to examine the influence of intra-person fluctuations in self-efficacy on career commitment change offers us more insights into the longitudinal relation between the two variables (e.g., whether the antecedent and career commitment covary across time) (see Nie et al., 2020).

The meta-analysis conducted in this study reveals that most works on the antecedents of career commitment are based on cross-sectional design (between-person effect), neglecting change in the antecedents and whether such change can be used to longitudinally forecast

career commitment. An increasing number of studies show that for a particular relation, within-person- and between-person assessments may result in different conclusions (Nie et al., 2020). For example, a recent three-wave longitudinal study on 1610 employees from various industries in Germany found that employees who were supervised by empowering leaders reported less emotional fatigue whereas an increase in perceived empowering leadership behaviours was not significantly related to a decrease in emotional fatigue over time (Rudolph et al., 2022). With such gaps in mind, the present study thus aims to examine deeply the predictive power of the antecedents of career commitment from both within-person and between-person perspectives.

A review of the practice of extant works (e.g., Donachie et al., 2019) shows that examining within-person and between-person effects needs special design and analysis methods (Wang & Maxwell, 2015). First, having a large longitudinal dataset in which the variables of interest are measured across at least three time waves is required to capture within-person fluctuations (see Hoffman & Stawski, 2009; Walther et al., 2021). Second, the analytic technique must have the capacity to appropriately disaggregate within-person and between-person effects (Curran & Bauer, 2011), given that mis-ascribing these two effects may result in deceptive findings (Wang & Maxwell, 2015). In contemporary vocational research, longitudinal multilevel modelling (also known as hierarchical linear modelling) is highly recommended (Hoffman & Stawski, 2009) since it has the power to detect random variance because of multiple sampling facets (e.g., across time and individuals), allowing researchers to separate within-person and between-person effects and more importantly, simultaneously examine these two types of effects (Galla et al., 2014).

In the present work, from a within-person perspective (level 1), the influence of time-varying covariates (i.e., occupational self-efficacy and family support) on career commitment change will be examined. Treating the antecedents and career commitment as time-varying variables can provide insights into whether the antecedents have longitudinal influence on career commitment over time. From a between-person perspective (level 2), the influence of inter-person differences in occupational self-efficacy and family support on career commitment will be assessed. Such investigations can offer insights into whether employees who have higher occupational self-efficacy and family support report stronger career commitment than those who have less self-efficacy and family support (see Wang & Maxwell, 2015).

Methodologically, some other between-person attributes (e.g., demographic characteristics) should also be included as control variables that might confound the relations between the antecedents and career commitment (see Jansen et al., 2016). In order to assess whether within- and between-person relations of career commitment with occupational self-efficacy and family support may be better portrayed through mediational paths, the mediating role of affective organisational commitment will also be explored based on multilevel mediation modelling. The methodology chapter provides more details around the rationale and strength of longitudinal multilevel modelling.

2.5.2 The outcome of career commitment: Wellbeing

Due to poor work conditions (e.g., anti-social work hours, low pay), hospitality has been widely believed as one of the most stressful and unhealthiest occupations (He et al. 2019; Mensah et al. 2021; Ponting, 2020). Because of the relative prevalence of exploitative human resource practices and inevitable service failure, hospitality workers are often treated poorly by both management and customers (Ariza-Montes et al., 2019; Hsu et al., 2019; Yang et al., 2022), leading to low work motivation, reduced commitment and insufficient wellbeing (Zhu et al., 2020). According to social impact theory (Latané, 1981) and balance theory (also known as satisfaction mirror) (Harari, 1967), the quality of service encounters and satisfaction of customers largely rely on the positive state of service workers. Employee wellbeing thus is particularly more vital in the hospitality sector than in other industries as it plays a key role in determining the service-oriented organisation's success or failure (He et al., 2019).

A review of vocational literature shows that the research interest of contemporary scholars has shifted from objective career success to wellbeing. There may be three reasons for this (Smale et al., 2019). First, influenced by different cultures, people define career success differently. It is therefore hard to select appropriate objective metrics. Second, sometimes having accomplished objective career goals may not mean individuals enjoy working in their occupational field. Third, wellbeing is a sustainable condition that has fundamental impact on individual performance and enables the individual to develop (Athota et al., 2020). The present study thus concentrates on wellbeing.

According to Schmutte and Ryff (1997), compared to work-related satisfaction (e.g., affection toward job), wellbeing can be defined as a context-free feeling of enthusiasm, happiness and contentment. Diener and Emmons (1985) believe that it refers to an individual positive judgment of the person's overall life quality. In other words, it entails a person's beliefs about whether he or she lives a "good" and "fruitful" life (Dahiya & Rangnekar, 2020). In the existing literature, wellbeing is interchangeably used with happiness, quality of life and life satisfaction (Christoph, 2010; Ebrahim et al., 2013). The relation between career commitment and wellbeing can be established based on London's (1983) career motivation theory. According to this theory, the desire for recognition is one of the key career motivation factors. Todd et al. (2010) found that employees who were highly committed to their careers were more likely to be considered as important stakeholders by their employers and given more responsibilities which normally comprise not only extrinsic incentives (e.g., pay raise), but also intrinsic rewards (e.g., feelings of being needed and trusted). Both, in turn, can contribute to better quality of life and higher psychological wellbeing (Romero et al., 2012).

Empirical evidence has suggested that employees' career commitment is positively related to both their affection toward work and life satisfaction. Gan and Cheng (2021) and Duarte (2015) found that those who have strong emotional bonds with their careers can derive more meaningfulness from work and, in turn, show optimistic attitudes toward career and life. This view is supported by Jue and Ha's (2018) findings. By collecting data from 203 respondents in Korea, the authors observed the beneficial effect of career commitment on life satisfaction. It is therefore believed that people who are more committed to their careers are more likely to view themselves as successful and feel satisfied with life. Thus, it is hypothesised that:

H4 (a): Career commitment is positively related to wellbeing.

It should be acknowledged that several studies have broadened our knowledge of the longitudinal influence of work commitment on individual outcomes (e.g., Panaccio & Vandenberghe, 2009). Nevertheless, the evidence for the causal relationship of career commitment with wellbeing is still weak and inconclusive. For example, despite the fact that the time-lagged association between career commitment and wellbeing has been reported by Hara et al. (2020), their results are constrained to a certain extent. Specifically, this work

failed to explore if career commitment change can be used to predict the **subsequent** development of wellbeing. The following example adapted from Chen et al. (2011) is utilised to present the importance of doing so.

Consider a situation where two employees (A and B) are asked to report their career commitment on a Seven-Likert scale in the early part of a year (e.g., a rating of 3 for A, 7 for B). At year-end, they have the same level of career commitment because A's career commitment has improved from 3 to 5 while B's emotional attachment has decreased from 7 to 5. Apparently, it is true that, at the end of the year, A and B show the same level of affection toward their careers, but from a long-term perspective, they will probably demonstrate different work/life attitudes, considering their different past experiences.

According to prospect theory (see Kahneman & Tversky, 1979), when humans evaluate their current state, they typically have their own personal standards and then they compare their standards with the current situation. Chen et al. (2011) investigated the impact of job satisfaction change over time based on latent change score modelling and exhibited that after controlling for the end-state perceptions of job satisfaction, the additional variance in turnover intention change could be attributed to job satisfaction trajectories. Such findings suggested that job satisfaction at an earlier time point serves as a reference point for employees to interpret their job satisfaction at a later stage. It is therefore believed that a change in an individual's state (whether negative or positive) affects their subsequent attitudes (Zacher & Rudolph, 2017). Since job satisfaction is one of the most powerful predictors of career commitment, it can be argued that it is appropriate to apply Chen et al.'s (2011) theoretical model to detect the causal relations between change in career commitment and subsequent change in wellbeing. The following hypothesis is, therefore, proposed:

H4 (b): Change in career commitment is positively related to change in wellbeing such that an increase (decline) in career commitment predicts a subsequent increase (decline) in wellbeing.

2.5.3 The influence of time on career commitment

2.5.3.1 The developmental trajectory of career commitment

The temporal nature of careers has been emphasised by several vocational theories. For example, viewed through the lens of career construction theory (Savickas, 2005), career development is viewed as an ongoing process of adaptation to the social environment, aimed at reaching person-environment integration. Career development models (e.g., Levinson, 1978) hold the view that individuals' perceptions of their careers may vary at different career stages. An understanding of how career commitment develops over time is thus necessary. Drawing on honeymoon and hangover effect theory (see Boswell et al., 2005), the present study attempts to examine the developmental trajectory of hospitality employees' career commitment.

Several organisational studies have revealed that newcomers typically have more positive work attitudes near the beginning of employment (Boswell et al., 2005; Boswell et al., 2009; Maia & Bastos, 2015). This can be explained from two perspectives. From a hirer's perspective, when recruiting talent, employers are likely to stress the positive side of their jobs and outline a promising career path for their potentials (Boswell et al., 2005). The anticipation of such positive attributes may fulfil individuals' needs for self-esteem temporarily, leading to initial positive feelings.

According to post-decision dissonance theories, psychological discomfort occurs when people hold two or more conflicting thoughts at the same time, and in order to reduce this dissonance, humans tend to seek consistency among their cognitions (Jarcho et al., 2011). This phenomenon may particularly happen when people have just entered a new occupational field. Choosing a vocation is normally considered an important decision in life, a wrong choice therefore could mean a huge cost for an early-career employee, such as previous investment (e.g., time, energy, effort that one has spent on his/her career preparation) (Fu, 2011). In this situation, there is a tendency for newcomers to develop a sense of affection and belonging to their careers. Despite some negative characteristics of a career that early-career employees may find, they may still pay more attention to the favourable aspects to rationalise their career choices (Kim & Moon, 2015). Boswell et al. (2005) named this phenomenon the "honeymoon effect". Hence, it is predicted that

H5 (a): Early-career employees will display relatively high levels of career commitment at the initial stage.

Unfamiliarity with a new situation may bring newcomers an overestimation of employer promises along with a feeling of newness (e.g., new environment, new people, new challenges), leading to highly positive attitudes early on. Researchers have found, however, that the magic of the new only lasts for a limited time (Boswell et al., 2005; Boswell et al., 2009; Maia & Bastos, 2015). Over time, newcomers will have more chances to accumulate knowledge about their work, and their unrealistic, optimistic expectations will be modified by the actual workplace experience (Zhou et al., 2017).

Adopting a latent growth modelling method, Vandenberghe et al. (2011) surveyed 170 French university graduates at three time points about their work attitudes and reported that as newcomers became settled and engaged in more run-of-the-mill daily activities, their job gradually lost the ability to evoke their enthusiasm. Specifically, the researchers identified that respondents' perceived work overload and turnover intention were positively associated with time, but their organisational commitment and job satisfaction significantly reduced over time. Interestingly, Maia et al.'s (2016) three-wave longitudinal work on 194 newcomers in Brazil also revealed a similar declining trajectory in newcomers' organisational commitment. This phenomenon was captured by Boswell et al. (2005) as well, namely the "hangover effect". That is, newcomers tend to exhibit optimistic work attitudes near the beginning, followed by a deterioration in their evaluation of their jobs over time.

From a career perspective, as the novelty of a vocation wears off, the unknown and negative aspects become manifest. During this transition period, early-career employees who suffer reality shocks will gradually realise the differences between what was expected and what is experienced and therefore such individuals may feel discouraged and disappointed (Maia et al., 2016). In their four-wave study on career calling with 450 respondents, Dobrow (2013) examined the developmental trajectory of career calling and confirmed that it could change over time. Specifically, based on latent growth modelling, they found that, while respondents expressed a comparatively high level of calling in their early career stage, they experienced a significant decrease in calling as time passed, highlighting the importance of conducting longitudinal studies on vocational constructs.

Drawing upon the honeymoon-hangover effect (Boswell et al., 2005) and studies on the longitudinal nature of career calling, organisational commitment and job satisfaction (three antecedents of career commitment), it is thus predicted that early-career hospitality employees' career commitment may also display a hangover pattern.

H5 (b): A decreasing trajectory of change will occur in early-career employees' career commitment.

Being a newcomer in a company or an occupational field is a temporal experience. The pattern of “honeymoon-hangover” in early-career employees' work attitudes thus may not apply to employees who have relatively longer career tenure (old-timers). Mooney et al. (2016) found that respect and autonomy were the two determinants influencing workers' willingness to stay in hospitality long-term. Since industry experience is highly regarded in hospitality, it is generally believed that old-timers are more likely to be considered reliable people who deserve to be trusted, empowered and promoted (Harkison et al., 2011; Keller & Semmer, 2013). Hence, for old-timers, there may be a likelihood that career commitment will grow with longer career tenure. This assumption might also be explained using uncertainty reduction theories (see Kramer, 1999). These theories claim that when humans enter a new field, they will suffer many cognitive uncertainties which cause anxiety and motivation to seek more information about the environment (Hogg, 2000). Logically, the more time an employee spends in an occupational field, the more access they have to information, which finally decreases anxiety and boosts a sense of belonging and wellbeing (Son & Ok, 2019). It is, therefore, assumed that

H5 (c): For old-timers (employees with relatively longer career tenure), an increasing trajectory of change will occur in their career commitment.

2.5.3.2 Time-varying effect (time as a moderator)

The relations between the antecedents and career commitment have typically been examined using a one-shot survey. However, Dobrow (2013) pointed out that understanding the influence of antecedents of career-related constructs ideally needs longitudinal data, since perceptions of these antecedents (e.g., perceived importance) may change considerably across time. In other words, time may act as a latent moderator in determining the strength of the associations between the antecedents and career-related outcomes. While it is possible that the aforementioned antecedents may lead to career commitment, it is also desirable to examine how hospitality employees experience and respond to these antecedents over time and how the changes in perceptions affect their vocational attitudes. The time-varying effects of these antecedents on hospitality employees' career commitment thus are explored in this study.

2.5.3.2.1 The accelerating effect of occupational self-efficacy

It is logical that employees who feel confident about their occupational competence are expected to be internally motivated to deliver their work to a high standard and seek ongoing professional advancement. Such employees are therefore more likely to realise their career aspirations, and in turn, become more committed to their careers.

According to career development models (Super, 1957), due to lack of work experience, compared to old-timers, workers in the initial career stage are less likely to achieve a high level of job performance, despite having the confidence to perform their job well (Cohen, 1991). Human capital theory (Becker, 1994) also indicates that humans vary regarding the investment they make in improving their competencies and capabilities, and according to this theory, old-timers might have more accumulated skills and knowledge that enable them to have a high standard of performance. Ng and Feldman's (2010b) comprehensive meta-analysis of over 300 individual works with a total sample of 249,841 employees confirmed the positive relation between tenure and job performance.

Therefore, in comparison with old-timers, early-career employees may have relatively less chance to attain their career goals (e.g., being recognised as an expert in the field), despite having high career-related efficacy and strong career motivation (Ng & Feldman, 2010a;

Priya et al., 2020). This may especially hold true in the hospitality sector where work experience is highly regarded by practitioners (Harkison et al., 2011; Mooney et al., 2016). Thus, even if early-career employees set high career aspirations for themselves, they may not develop that high level of affection or attachment towards their careers. It is therefore expected that the effect of occupational self-efficacy on career commitment would increase as time passes and such time-varying (accelerating) effect should be more significant for old-timers.

H6 (a): For old-timers, the positive effect of occupational self-efficacy on career commitment will increase over time.

2.5.3.2.2 The decelerating effect of family support

According to socio-emotional selectivity theory (Carstensen et al., 1999), when individuals deem their future to be open-ended, they are inclined to set up advancement goals. Levinson's (1978) career stage model also suggests that younger employees are more willing to sacrifice their personal lives for career advancement. These theoretical models imply that employees may need more understanding and help from their family to maintain work-life balance at the career start. The aforementioned theories might be applied to explain the findings of Beigi et al. (2018) and Labrague et al. (2021) who found that employees in the initial career stage were more likely to experience work-family conflict. Following this view, it is not surprising to see the results of Reichl et al.'s. (2014) meta-analysis. The authors reviewed 91 empirical studies entailing over 50,000 respondents and detected that the negative effect of work-family conflicts on work attitudes was stronger for those who have just started their career journey.

Employees in the initial career stage suffer from higher work demands and fewer resources to cope with (Reichl et al., 2014). At this stage, employees tend to prove their capabilities and obtain peer acceptance, they are, therefore, likely to be more involved in career competence development and competition (Chen et al., 2016). Besides, being in a junior job position gives them less job autonomy and flexibility (e.g., flexible timing of work). A lack of task-related expertise/experience also forces them to put extra effort into handling challenging work situations, leading to more inter-role conflicts (Matthews et al., 2010). Such demands are expected to reduce over time as employees become more adaptable at work,

receive more recognition, and obtain more control over work; in such a case, they have more time and energy to shoulder family role responsibilities (Demerouti et al., 2012).

It appears that off-the-job resources (e.g., family support, spousal understanding) may be more important at the start of a career than later (see Beigi et al., 2018). It is therefore expected that the effect of family support on career commitment would be stronger at career start and decrease as time passes and such time-varying (decelerating) effect should be profound in early-career workers.

H6 (b): For early-career employees, the positive effect of family support on career commitment will decrease over time.

2.5.3.2.3 The accelerating effect of affective organisational commitment

While human capital theory (Becker, 1994) posits that as employees age, their knowledge and experience will enhance, life span theory (e.g., Kanfer & Ackerman, 2004) highlights that ageing is also associated with losses. As time passes, employees' biological abilities will decrease as well as their occupational future time perspective which refers to employees' perceptions of their remaining time and opportunities in their occupational future (Zacher & Rudolph, 2021). The theory to some extent explains the fact that employees at the initial career stage are actively experimenting with different jobs and are more likely to leave the organisation for better career opportunities (Koo & Li, 2016), while old-timers tend to place more weight on job security and career stability (Kooij et al., 2011; Lin & Ma, 2004; Morrison, 2014)

From this perspective, it seems that old-timers are more involved in establishing stable work lives and thus more likely to consider person-organisation fit as a signal that they have selected a correct career (Koo & Li, 2016). Besides, several empirical studies have captured the positive relationship between tenure and decision-making authority (e.g., Seibert et al., 2011; Hendrawijaya, 2019). In other words, old-timers with more tenure are believed to have more power to master work activities as well as organisation, leading to stronger needs for a sense of (organisation-based) psychological ownership (Lee et al., 2016). Taken together, as there is more emphasis on emotional linkages with the organisation, deficiencies in such thus may have more negative influence on old-timers' career attitudes.

In contrast, when entering a career, employees are endeavouring to identify themselves in the occupational field in which they are interested, and thus may have more willingness to try different jobs in different organisations if the current one fails to meet their career expectations (Goh & Okumus, 2020; McGinley et al., 2014). Their career commitment is therefore less likely to be influenced by their emotional attachment toward the current organisation. Consequently, it is therefore expected that the effect of affective organisational commitment on career commitment would increase over time and such time-varying (accelerating) effect should be more significant for old-timers.

H6 (c): For old-timers, the positive effect of affective organisational commitment on career commitment will increase over time.

To sum up, drawing on theory in vocational psychology (e.g., career motivation theory, London, 1983; social cognitive theory, Bandura, 1986; spillover theory, Crouter, 1984), the following hypotheses were established in order to fill the voids found in the extant career commitment literature, and Figure 2 demonstrates the research model of the present work.

H1: Occupational self-efficacy is positively related to career commitment.

H2: Family support is positively related to career commitment.

H3 (a): Affective organisational commitment mediates the relation between occupational self-efficacy and career commitment.

H3 (b): Affective organisational commitment mediates the relation between family support and career commitment.

H4 (a): Career commitment is positively related to wellbeing.

H4 (b): Change in career commitment is positively related to change in wellbeing such that an increase (decline) in career commitment predicts a subsequent increase (decline) in wellbeing.

H5 (a): Early-career employees will display relatively high levels of career commitment at the initial stage.

H5 (b): A decreasing trajectory of change will occur in early-career employees' career commitment.

H5 (c): For old-timers, an increasing trajectory of change will occur in their career commitment.

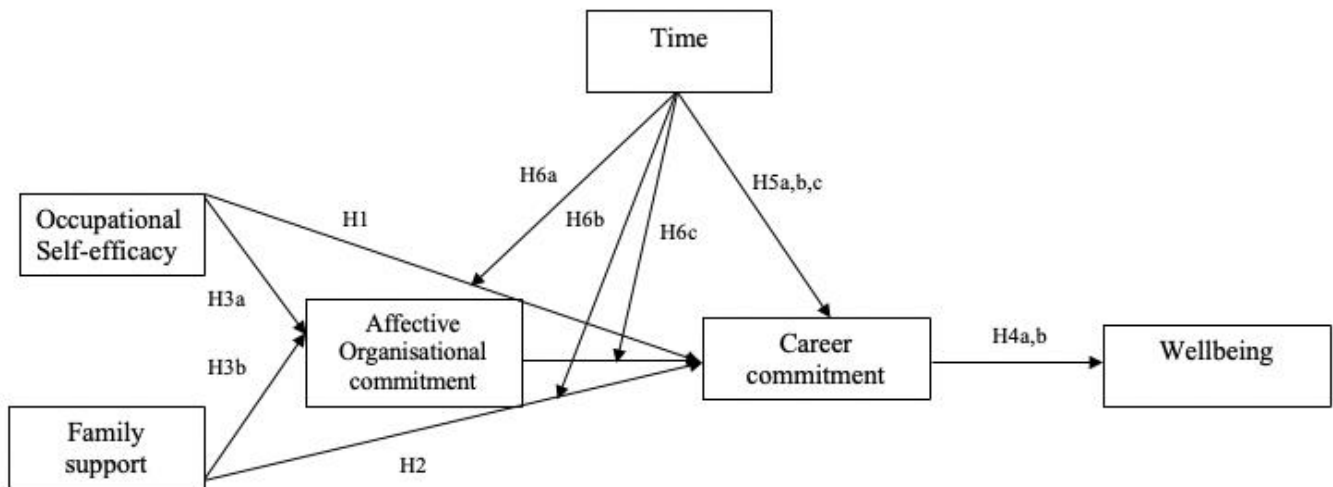
H6 (a): For old-timers, the positive effect of occupational self-efficacy on career commitment will increase over time.

H6 (b): For early-career employees, the positive effect of family support on career commitment will decrease over time.

H6 (c): For old-timers, the positive effect of affective organisational commitment on career commitment will increase over time.

Figure 2

Research Model



3. Methodology

3.1 Chapter preview

The purpose of this chapter is to explicate the research methodology utilised in this study. The chapter begins by introducing the philosophical foundations (i.e., research paradigm) of the present work from ontological, epistemological and methodological perspectives, followed by a short summary of study design. The next section provides a justification of sampling methods and sample size. After that, the procedures involved in the pilot test and formal data collection are described. Subsequently, questionnaire design and instrument development are explained, followed by a detailed discussion of data analytic strategies. The last section addresses ethical considerations of the current research.

3.2 Research design

3.2.1 Research paradigm

According to Kuhn (1996), a research paradigm can be defined as “a set of common beliefs and agreements shared between scientists about how problems should be understood and addressed” (p. 45). In essence, it describes a philosophical way of thinking or a researcher’s “worldview” and leads the way research is conducted (Mackenzie & Knipe, 2006). Positivism, interpretivism and critical inquiry are the three mainstream or dominant paradigms (theoretical perspectives) in social science research. As the present study was theory-driven and aimed at statistically testing assumptions via direct measurement and causal analysis, it adopted a positivist paradigm. Introducing the paradigm of a study is important as it inherently presents the researcher’s worldview that informs how data will be collected and interpreted. A research paradigm can be divided into three components: ontology, epistemology and methodology (Guba, 1990).

A positivist paradigm is characterised as having an objectivist ontology. Ontology mainly concentrates on several related questions revolving around “what is the nature of reality?” and “what entities exist or might be said to exist?”. It is the philosophical study of being, which is employed to describe the relationship between one and one’s perceived reality (Gruber, 1993). Influenced mainly by positivism, the researcher believes that the world is

external and objective and is driven by natural laws which are fixed. This means that the researcher holds the view that reality is independent of human consciousness. In other words, the researcher believes that the causal relations of career commitment with its antecedents and outcomes objectively exist, regardless of the researcher's subjective view. A quantitative research methodology was thus adopted to maintain the objectivity of the findings.

Within a positivist paradigm, the position of epistemology is grounded in empiricism and realism. The term "epistemology" is derived from the Greek episteme which means knowledge. Simply put, epistemology refers to the study of knowledge, and in research, it is applied to portray what valid knowledge is and how researchers access knowledge (Bryman, 2012). From a positivist's perspective, only knowledge discovered based on empiricism can be called valid knowledge, namely scientific knowledge, and the world is a collection of observable facts that can be quantified, measured and generalised. Positivism thus emphasises quantitative data. Also, influenced by realism and objectivism, positivists hold the view that knowledge should be acquired through neutral and value-free methods. That is, there should be a split between the knower and the known when exploring how things really are (Guba, 1990). An online survey was utilised in the current research to allow the researcher to remain detached from respondents and emotionally neutral.

Grounded in positivism, the proposed study adopted a quantitative research methodology. Methodology refers to a set of principles, rules and techniques through which researchers explore different situations and obtain knowledge (Tuli, 2011). Quantitative research methodology is utilised to investigate reality and explore the relation between theory and research. The use of such methodology often involves a statistical examination of theory-driven hypotheses based on objective and generalisable results in order to explain the cause and effect of a phenomenon (Bryman & Bell, 2011). The findings of quantitative studies are applied to support or broaden theories, which can also generate new assumptions and insights for future research. Specifically, a survey research method (questionnaires) was employed to collect longitudinal quantitative data with the aim of empirically and quantitatively testing the relations of career commitment with its antecedents and outcomes in the hospitality context. The advantages of a questionnaire survey involve reducing researcher reflexivity, having a relatively large sample size and producing more representative results (Bryman &

Bell, 2011). In this study, all instruments were adopted or adapted from previous studies to ensure reliability and validity.

3.2.2 Scope of the present study

The main purpose of this study was to develop a better understanding of hospitality employees' career commitment. First, the relations between the antecedent variables (i.e., occupational self-efficacy and family support) and career commitment were empirically tested from both within- and between-person perspectives in a hospitality context (H1-2). The study also set out to investigate why these factors would influence hospitality employees' career commitment, namely the role of mediators. Specifically, based on the findings from the meta-analysis and existing theories (e.g., signalling theory, Goffman, 1959), affective organisational commitment was expected to be the mediator (H3a, b).

The study also paid attention to the outcomes of hospitality employees' career commitment, informed by career motivation theory (London, 1983). Specifically, the independent variable was career commitment, and wellbeing was considered as the outcome variable (H4a). In addition, drawing on Kahneman and Tversky's (1977) prospect theory, latent change score modelling was utilised to evaluate whether career commitment change played a unique role in subsequent change in wellbeing (H4b).

Considering the temporal nature of career-related constructs, this study aimed to reveal the trajectory of hospitality employees' career commitment through the use of longitudinal growth modelling. Drawing upon the honeymoon-hangover effect (Boswell et al., 2009), this study hypothesised that hospitality employees would demonstrate relatively high levels of career commitment early on (H5a), followed soon after by a deterioration in their appraisal of their careers (H5b). Regarding hospitality employees in mid-and late-career stages, drawing from existing hospitality studies (e.g., Mooney et al., 2016) and uncertainty reduction theory (Kramer, 1999), it was expected that there would be an increase in their career commitment over time (H5c). Additionally, time-varying effect analysis was conducted to examine how the relationships of career commitment with these antecedents changed over time (H6a, b, c).

3.3 Research participants

3.3.1 Sampling strategy

The common two sampling methods applied in quantitative research are probability sampling and non-probability sampling. In probability sampling, population members are given an equal probability of being included in the sample (Bradley, 1999). Under such circumstances, the sample has a high degree of representativeness. However, in order to conduct probability sampling, researchers have to clearly identify the sample frame, which is a list of the members of the targeted population who are eligible to be included (Kenneavy et al., 2022). Probability sampling thus is not suitable for this study as the number of hospitality employees is large, and turnover in the sector is high. Hence, non-probability sampling was chosen as the sampling method.

Convenience sampling as a common non-probability sampling method in social science was applied in the present study to maximise the number of participants efficiently and affordably. The advisor of the present study was based in Kaifeng (a famous tourist city in China) and had successfully conducted several longitudinal studies in the Chinese hospitality context. The advisor provided the researcher with a list of hotels in Kaifeng that may be willing to participate in research based on his previous experience. The reputation of each listed hotel was double-checked utilising the China National Enterprise Credit Information Publicity System (<http://www.gsxt.gov.cn/>), and only establishments with good credit status (i.e., not in the list of corporates with irregular operations) were chosen to recruit participants.

Research utilising convenience sampling is simple to challenge since it is difficult for the researchers to justify the generalisability of their results. According to Oppong (2013), in order to improve sample representativeness, the convenience method is typically combined with purposive sampling. It can be used when a study centres on predefined respondents who have a particular background. With the aim of ensuring respondents have a basic understanding of the hospitality industry, the study identified as its sample, employees who had at least one-month of experience working in hospitality establishments. Accordingly, screening questions were located at the initial stage of each questionnaire to help the researcher choose eligible participants.

For the purpose of subgroup analysis (e.g., a comparison between early-career employees' and old-timers' career commitment trajectories), guided by extant vocational studies (e.g., Lam et al., 2012; Stumpf, 2014) published in high-impact journals, individuals with seven or fewer years of career tenure were regarded as early-career employees and those with eight or more years of career tenure as old-timers. It should be noted that while there is no agreement regarding how career stages should be operationalised, career tenure is a more proper indicator of career stages in a particular occupational field than age, job tenure, etc (Lam et al., 2012). This is mainly because individuals can be at any career stage at any age. Workers may also recycle through career stages when they change their job or occupation.

3.3.2 Sample size

With respect to the minimum sample size for quantitative research, both Appannaiah et al. (2010) and Sekaran and Bougie (2016) argue that it must be over 30. Sekaran and Bougie (2016) also recommend that the sample size needs to be at least 10 times the number of research constructs for conducting regression analysis. In a review of popular sample size guidelines, Osborne (2007) found that if a sample size was larger than 200, the representativeness of the sample would be generally considered acceptable. Recommendations on determining the sample size of longitudinal multilevel research also vary. Snijders (2011) suggests that the sample size at level two in multilevel research should be never less than 20. Hox et al. (2010) regard samples of 30 as satisfactory. Shi et al. (2021) further suggest that in order to avoid poor model fit, the sample size should be larger than 60 for research using longitudinal growth modelling, and in practice, 100-200 clusters (i.e., individuals for repeated measurement data) are preferable (Boomsma, 1982 as cited in Shi et al. 2021) Taking all the above into consideration, and drawing on previous longitudinal multilevel studies (e.g., De Cuyper et al., 2012; Park et al., 2021b), the expected size of the sample was 200; however, considering attrition, the targeted sample size for the baseline survey was above 300.

Several strategies were applied to maximise the sample size. Longitudinal research designs normally involve a fixed number of repeated measurements on the same respondents at three or more time points. In other words, respondents of longitudinal research need to be surveyed multiple times. It is highly possible that participants may become tired in the surveys,

especially in the latter surveys. Such an issue, called respondent fatigue, is a common phenomenon in longitudinal research and is normally associated with rising non-response rates (Lynn, 2009). Several strategies were used to prevent participants from feeling tired. For example, only questions closely related to the research questions were asked, to reduce the time the survey requires. In addition, considering more effort is required to fill in open text fields relative to selecting a multiple-choice answer, the use of open-ended questions was limited.

Besides respondent fatigue, longitudinal research often suffers from attrition, namely, respondents dropping out earlier than planned, which may make the findings biased (Lynn, 2009). According to De Leeuw and Lugtig (2014), failure to contact participants, and failure to achieve cooperation are the two main reasons for dropouts in longitudinal surveys. Accordingly, the following strategies were employed to reduce dropout rates. To minimise issues in contacting respondents, specific locating information was gathered from respondents. For example, besides their WeChat ID, participants' phone numbers were also needed. In addition, with the aim of limiting problems in achieving cooperation, before sending out survey links, the researcher ensured the online questionnaire could be optimised for different devices (e.g., tablets, smartphones and desktops) to make the survey accessible and user-friendly. Monetary incentives were used after each round to enhance respondent engagement.

3.4 Data collection

3.4.1 Pilot test

While all the measurement scales in the questionnaire were adopted or adapted from highly cited research, they were originally established in English. Considering the present study was conducted in China, a translation of the questionnaire was needed before conducting pilot test and actual data collection. Such translation was performed as per Brislin's (1980) suggestions. First, as a native speaker of Chinese, the researcher translated the questionnaire into Chinese. Next, two bilingual postgraduate students independently reviewed the quality of the translations and revised the translated questionnaire. The discrepancies between their versions were addressed by group discussion among the three of us. The revised version was then sent to a professional English-Chinese translator who worked in a translation company

in Shanghai, China. The translator was requested to convert the questionnaire back to English. No major semantic inconsistencies were observed between the original English version and the reverse-translation version.

In comparison with qualitative research instruments (e.g., interview scripts), researchers will not be able to make any changes to questionnaires once they have been distributed (Gray, 2018). The researcher thus conducted a series of pilot tests following Gillham's (2008) recommendations to ensure the quality of the questionnaire. In each pilot test, participants were asked to provide suggestions on the wording of the measurement items, sequence of questions, length of the questionnaire and other aspects of concerns (e.g., the format of the questionnaire) (see Gray, 2018).

The first pilot of the survey was conducted with five individuals who were not the target sample (non-hospitality employees) to check whether the questionnaire was translated into plain language. All five respondents reported that the survey questions were straightforward and could be finished in a reasonable amount of time (i.e., 10-15 minutes). A second pilot test was then conducted with ten hospitality employees and five bilingual hospitality academics to seek their advice on the appropriateness of questions. All the test participants confirmed that the questions were clear and easy to complete. Based on the comments from the bilingual academics, the translation of several items was slightly reworded to enhance accuracy. No other adjustments were made. Finally, before distributing the questionnaire, the PhD research supervisors reviewed the content again and made some minor modifications to the design of the web-survey (e.g., navigational routes).

3.4.2 Longitudinal data collection

Respondents of the present work were hospitality employees working in divergent departments of various hotels in Kaifeng, China. The hotels included mid- to upscale hotels, such as three-star and five-star hotels. Kaifeng, despite being a mid-size city, stands out as a highly popular tourist destination with a rich historical background in northern China. Several research assistants were hired and trained to collect data. Specifically, the research assistants visited a number of hotels in Kaifeng, informed the HR manager about the aim and procedure of the present study using the Information Sheet for Managers (see Appendix B.c) and then asked for approval to approach and survey their employees.

With permission from the HR manager, the research assistants informed employees about the background, time schedules and plans for compensation of current research using the Participant Information Sheet (see Appendix B.b) and Invitation Poster (see Appendix B.e) face to face. Some hotels also allowed the research assistants to put up an invitation poster on the staff noticeboards and/or distribute the posters during team meetings. With the aim of obtaining more honest response from participants, they were informed that their participation should be voluntary and that their supervisors/managers would not have access to their responses.

Employees who exhibited willingness to participate in the survey were required to provide verbal consent and sign the Consent Form (see Appendix B.d) and give it back to the research assistants in hard copy or soft copy via email/WeChat (one of the most popular instant communication Apps in China). The consent form not only asked participants to give their signatures but also their contact details (e.g., WeChat ID), enabling them to receive survey links via WeChat. Qualtrics was chosen as the tool to establish online questionnaires and generate survey links. These links could be accessed using either smartphones or desktop computers. All respondents participated in the longitudinal surveys by clicking on the Qualtrics survey links that were sent to them.

Online surveys were conducted over a six-month period at three-month intervals. This decision was made for the following reasons. First, three time points are the minimum required to apply latent growth modelling (Xu & Martinez, 2018). Second, according to Bucy and Holbert (2010), as more waves of data are gathered, the sample attrition rate will increase, diminishing the representativeness and reliability of longitudinal data. The use of a three-month time lag was consistent with existing career-related longitudinal studies (see Autin et al., 2017; Xu & Tracey, 2017) published in high-impact journals.

Respondents were requested to complete the baseline survey at Time 1, measuring career commitment and its antecedents (i.e., occupational self-efficacy, family support and affective organisational commitment) and outcome (i.e., wellbeing) variables as well as sociodemographic characteristics (e.g., age, gender and civil status). Participants who completed the Time 1 survey were invited to participate in Time 2 (three months later) and Time 3 (six months later) surveys utilising the same questionnaire. In order to boost response

rates, a reminder notice was sent to each potential participant who signed the consent form seven days before each wave via WeChat. In line with the best practice of extant longitudinal studies (e.g., Park et al., 2021a), when completing each online survey, respondents were asked to provide the last four digits of their mobile phone number as a personal code. Such an identification number along with the sociodemographic characteristics allowed the researcher to track and match their responses over time while also ensuring confidentiality.

The sample size across waves was shown in Table 3. First, regarding the total sample, of 335 hospitality employees who signed the consent form, 310 participated in the Time 1 Survey and provided valid responses, generating a response rate of 93%. These respondents were invited to join the Time 2 and Time 3 surveys. The Time 2 questionnaire was accomplished by 215 participants, resulting in a response rate of 69%. One hundred and eighty-four respondents completed the Time 3 survey; hence, from Time 1 to Time 3, the attrition rate was around 40 per cent which was in the acceptable range (see Kristman et al., 2005). Respondents were distributed fairly between early-career employees (N = 154) and old-timers (N = 156). The overall attrition rate of the early-career sample was 10% higher than that of the old-timer sample.

Table 3

Sample Size across Waves

	Time 1	Time 2	Time 3
<i>Total sample</i>			
Questionnaire distributed	335	310	310
Valid responses	310	215	184
Response rate	93%	69%	59%
<i>Early-career employees</i>			
Questionnaire distributed	169	154	154
Valid responses	154	89	83
Response rate	91%	58%	54%
<i>Old-timers</i>			
Questionnaire distributed	166	156	156
Valid responses	156	126	101
Response rate	94%	81%	65%

Participants received financial incentives in the form of WeChat Red Packets (digital currency) as compensation for their time and efforts. The incentives were given subject to

the completion of each online questionnaire. For example, if a respondent completed the Time 1 questionnaire, the person would obtain a WeChat Red Packet (RMB 8 yuan). Then, the individual would get RMB 5 yuan for every follow-up questionnaire accomplished. In addition, if the respondent successfully participated in all the surveys, the person could get extra RMB 6 yuan as a bonus; totally, RMB 24 yuan (approximately NZD \$5) could be obtained.

3.5 Instrument development

The questionnaire entailed three screening questions, thirty questions measuring the variables of interest and ten questions related to respondent demographic profile. The questionnaire can be found in Appendices B.a (English version) and C.a (Chinese version).

Occupational self-efficacy: Occupational self-efficacy was captured utilising a six-item scale developed by Rigotti et al. (2008). This shortened scale was developed based on the long version by Sherer et al. (1982). The authors of the short version scale reported acceptable reliability and validity estimates based on samples across five countries. Preceding works published in high-ranking journals also reported evidence of high reliability for this scale, such as Park and Jung (2015), Hirschi et al. (2013) and Hirschi et al. (2015). The predictive power of this measurement in forecasting career-related attitudes had been confirmed in a meta-analytic study by Udayar et al. (2020). In the present study, respondents rated the items from 1 = strongly disagree to 7 = strongly agree. A total occupational self-efficacy score was computed by calculating the mean of the six items. Higher scores reflected higher occupational self-efficacy. The scale demonstrated adequate internal consistency in current research since the Cronbach's alpha values for this scale were 0.93 at Time 1, 0.91 at Time 2 and 0.93 at Time 3. The six measurement items are shown in Table 4.

Table 4

The Measurement Scale of Occupational Self-Efficacy

Items
SE1 I can remain calm when facing difficulties in my job because I can rely on my abilities.
SE2 When I am confronted with a problem in my job, I can usually find several solutions.
SE3 Whatever comes my way in my job, I can usually handle it.
SE4 My past experiences in my job have prepared me well for my occupational future.
SE5 I meet the goals that I set for myself in my job.
SE6 I feel prepared for most of the demands in my job.

Family support: Family support was examined utilising seven items adapted from Boyar et al. (2014). The authors' social support measurement scale consists of 16 dimensions, such as work-related support from co-workers, work-related support from supervisors, work-related

support from the organisation and work-related support from family members. The items used for family support in the current research were adapted from the “work-related support from family members” dimension. The items in this dimension were developed based on King et al.'s (1995) family support scale, asking about the emotional and instrumental support that employees obtain from their family members. Boyar et al. (2014) validated the scale based on samples across five industries. Preceding works published in high-ranking journals also reported evidence of high reliability for this scale, such as Yang et al. (2022) and Torte and Mills (2022). In the present study, respondents rated the items from 1 = strongly disagree to 7 = strongly agree. A total family support score was computed by calculating the mean of the seven items. Higher scores reflected higher perceived family support. The scale demonstrated adequate internal consistency in current research since the Cronbach's alpha values for this scale were 0.91 at Time 1, 0.92 at Time 2 and 0.95 at Time 3. The seven measurement items are shown in Table 5.

Table 5

The Measurement Scale of Family Support

Items	
FS1	My family is willing to listen to me when I talk about my career.
FS2	My family understands how important my career is to me.
FS3	Someone in my family asks me regularly about my career progression.
FS4	When my work gets very demanding, someone in my family will take on extra household duties and/or childcare responsibilities.
FS5	If I need to work late as a result of my career role, I can count on someone in my family to take care of everything at home.
FS6	When I have career-related setbacks to overcome, my family tries to do more work around the house.
FS7	Family members adjust their schedules to meet my work needs.

Affective organisational commitment: Affective organisational commitment was examined utilising an improved five-item version (Lee et al., 2001) of the scale established by Allen and Meyer (1996) whose conceptualisation of organisational commitment was one of the most cited theoretical frameworks for understanding employees' affection towards the organisation. And in particular, the five-item version demonstrated better applicability in the Asian culture than the original eight-item version (see Lee et al., 2001). Preceding works also reported evidence of high reliability for this five-item scale, such as Kim et al. (2017) and Ramesh and Gelfand (2010). The predictive power of such measurement in forecasting work-

related attitudes and behaviour had been confirmed in a meta-analytic study by Meyer et al. (2002). In the present study, respondents rated the items from 1 = strongly disagree to 7 = strongly agree. A total affective organisational commitment score was computed by calculating the mean of the five items. Higher scores reflected higher affective organisational commitment. The scale demonstrated adequate internal consistency in current research since the Cronbach's alpha values for this scale were 0.95 at Time 1, 0.96 at Time 2 and 0.96 at Time 3. The five measurement items are shown in Table 6.

Table 6

The Measurement Scale of Affective Organisational Commitment

Items
AOC1 I really feel as if this organisation's problems are my own.
AOC2 I do feel like "part of the family" at my organisation.
AOC3 I do feel "emotionally attached" to this organisation.
AOC4 This organisation has a great deal of personal meaning for me.
AOC5 I do feel a strong sense of belonging to my organisation.

Career commitment: Career commitment was captured utilising seven items adopted from Blau (1985b) with wording slightly adjusted to be pertinent to the hospitality context. Blau (1985b) developed this scale based on the previous well-established measurements of work commitment (e.g., Price & Mueller, 1981) and reported acceptable reliability and validity estimates of the scale based on longitudinal samples. Preceding individual works published in high-ranking journals reported evidence of high reliability for this scale, such as Zhou et al. (2022), Wang (2021) and Steger et al. (2012). A meta-analytic review of 156 career commitment studies showed that this scale was the most frequently applied and demonstrated high internal consistency. In the present study, respondents rated the items from 1 = strongly disagree to 7 = strongly agree. A total career commitment score was computed by calculating the mean of the seven items. Higher scores reflected higher career commitment. The scale demonstrated adequate internal consistency in current research since the Cronbach's alpha values for this scale were at 0.94 Time 1, at 0.96 Time 2 and at 0.96 Time 3. The seven measurement items are shown in Table 7.

Table 7*The Measurement Scale of Career Commitment*

Items
CC1 If I could go to a different job in an industry other than hospitality which paid the same, I would not do so.
CC2 I definitely want a career for myself in the hospitality industry.
CC3 If I could do it all over again, I would still choose to work in in the hospitality industry.
CC4 If I had all the money, I needed without working, I would probably still continue to work in the hospitality industry.
CC5 I like this vocation too well to give it up.
CC6 This is the ideal vocation for a life work.
CC7 I never feel disappointed that I ever entered the hospitality industry.

Wellbeing: Wellbeing was examined utilising five items adopted from Diener and Emmons (1985). The authors validated this scale based on multiple and longitudinal samples and reported acceptable reliability and validity estimates. Preceding individual works published in high-ranking journals reported evidence of high reliability for this scale, such as Kim et al. (2016), Santilli et al. (2014) and Perdrix et al. (2012). Besides, several meta-analytic studies also revealed the extensive use of this measurement scale (DeNeve & Cooper, 1998; Luhmann et al., 2012; Zessin et al., 2015). This scale had been considered as the ‘gold standard’ to measure wellbeing (Luhmann et al., 2012). In the present study, respondents rated the items from 1 = strongly disagree to 7 = strongly agree. A total wellbeing score was computed by calculating the mean of the five items. Higher scores reflected higher wellbeing. The scale demonstrated adequate internal consistency in current research since the Cronbach’s alpha values for this scale were 0.95 at Time 1, 0.96 at Time 2 and 0.95 at Time 3. The five measurement items are shown in Table 8.

Table 8*The Measurement Scale of Wellbeing*

Items
WB1 In most ways my life is close to my ideal.
WB2 The conditions of my life are excellent.
WB3 I am satisfied with my life.
WB4 So far I have gotten the important things I want in life.
WB5 If I could live my life over, I would change almost nothing.

Demographic information: Participants were also asked about their sociodemographic profile. Specifically, they were requested to indicate their age, gender, civil status, number of dependents they had, educational background, the industrial sector they were working in, job level, organisational tenure, career tenure and annual incomes. A review of the antecedents of career commitment revealed that age, gender, civil status and number of dependents were among the most frequently examined demographic variables, and previous empirical works (e.g., Satoh et al., 2017) also captured their potential confounding effects. They were thus selected as control variables (time-invariant covariates) in the present study and were recorded as follows: age (coded as a numerical variable), gender (0 = male, 1 = female), civil status (0 = single, 1 = in a relationship/married) and number of dependents (coded as a numerical variable).

3.6 Data analysis methods

Several statistical tools were applied to conduct data analysis. Specifically, measurement model assessment was performed using Mplus 8.0. Statistical Package for the Social Sciences (SPSS) 26 was utilised to do descriptive analysis. All the hypotheses were tested based on Hierarchical linear modelling (HLM) using the software HLM 7, except H4 which was examined based on structural equation modelling (SEM) using Mplus 8.0.

3.6.1 Measurement model

Before testing the hypotheses, a measurement model assessment was performed to evaluate the reasonableness of the proposed model and verify the reliability and validity of the construct measurements. Confirmatory factor analysis (CFA) (also known as the goodness-of-fit test) (see Byrne, 2011) was conducted first to evaluate how well the theoretical model proposed in the present study fitted the observed data (i.e., model validity) using Mplus 8.0. As a mainstream SEM-based software, Mplus 8.0 offers several essential model fit indices covering three aspects: absolute fit indices, parsimony fit indices and incremental fit indices (Kelloway, 2014). It is suggested that at least one investigation per aspect should be reported to justify model reasonableness (Jackson et al., 2009).

Chi-squared test (X^2) as an absolute fit index reveals the discrepancy between the sample and expected covariance matrices. Thus, the smaller the X^2 (e.g., non-significant results for the

chi-squared test), the better the model fit (Clark & Bowles, 2018). However, a number of scholars have found that when examining model fit, the chi-squared test normally only provides positive results when the sample size is small (Bergh, 2015). Given that quantitative research often needs relatively large sample sizes (e.g., over hundreds of respondents), another absolute fit index, X^2/df (i.e., Chi-square divided by the degrees of freedom, also known as the misfit ratio) revised based on the chi-squared test is recommended (Alavi et al., 2020). The misfit ratio is calculated by utilising chi-square values divided by the degrees of freedom, and the smaller the misfit ratio, the better model fit. Values of the X^2/df less than five imply a good fit (Hair & Babin, 2018).

Root Mean Square Error of Approximation (RMSEA) is considered one of the most important and most widely used fit indexes (Kenny et al., 2015). As a parsimony-adjusted index, it indicates residuals in the model (Clark & Bowles, 2018). The smaller the RMSEA, the lesser residuals in the model and the better the model fit. According to Schumacker and Lomax (2010) and Hair and Babin (2018), scores of the RMSEA smaller than or equal to 0.08 can be deemed as acceptable.

The comparative fit index (CFI) and Tucker-Lewis index (TLI) are two incremental fit indices. The CFI and TLI evaluate the model fit by calculating the difference (with respect to fit) between the proposed model and the null model (i.e., a model with the worst model fit in which all the variables are not correlated to each other) (Brosseau-Liard & Savalei, 2014). Hence, the larger the CFI and TLI, the better the model fit. Values of the CFI and TLI around or larger than 0.90 can be considered as satisfactory (Bentler, 1990; Schumacker & Lomax, 2010).

Mplus 8.0 also allows researchers to assess the reliability and validity of construct measurements (Kelloway, 2014). Measurement reliability refers to the extent to which the items in a scale constantly measure the same construct. In other words, if the items in a scale are highly correlated with each other, the internal consistency (i.e., reliability) of the scale would be high (Chiang et al., 2015). Consistent with the mainstream practice of existing quantitative studies (e.g., Park et al., 2021b), Cronbach's alpha coefficients and composite reliability values were reported to justify the reliability of the constructs of interest. Both the

Cronbach's alpha and composite reliability scores larger than 0.7 imply high internal consistency of a measurement (Hair & Babin, 2018).

Measurement validity focuses on the degree to which a particular scale adequately measures what it is expected to (Chiang et al., 2015). The measurement validity (e.g., convergent validity) of a scale/construct can be assessed by calculating Average Variance Extracted (AVE) values and item factor loading values which both concern how well a construct is measured by its items, that is, the proportion of variance explained by a construct in its indicators in the overall construct variance (Hamid et al., 2017). According to Cheung and Wang (2017) and Hair and Babin (2018), if both the AVE and the factor loadings of all items are greater than 0.5, it indicates that the proportion of variance explained by a construct in its indicators is larger than that of the variance explained by measurement error, and thus the validity of a construct can be maintained.

3.6.2 Descriptive statistics

Descriptive analysis is a form of data analysis that assists in introducing the key characteristics of the gathered data in a quantitative and constructive fashion (Trochim & Donnelly, 2006). In social research, descriptive statistics usually involve summaries of participants and study variables. In the current research, first, descriptive analysis was conducted to portray the features (i.e., demographic information) of respondents. Given that this study involves subgroup analysis (e.g., assessing the difference between early-career employees and old-timers' career commitment trajectories), participants' demographic information was summarised for the total sample, early-career sample and old-timer sample. The demographic characteristics included age, gender, civil status, number of dependents, educational background, job position, career tenure, organisational tenure, annual incomes, etc.

To enhance the transparency and reproducibility of the present study, descriptive analysis was also performed for the study variables. The mean and standard deviations, skewness statistics, and kurtosis statistics of the variables were calculated. The mean and standard deviation were used to help readers understand the shape of the data distribution, while skewness (a measure of symmetry) and kurtosis (a measure of outliers) statistics were applied to further statistically justify whether data were normally distributed (Westfall, 2014).

According to Hair and Babin, (2018), data can be deemed as normally distributed, if the skewness is less than an absolute value of 2 and the kurtosis is smaller than an absolute value of 7.

Pearson's correlation analysis was also conducted to demonstrate the potential relationships among the study variables. This is a tool to assess the discernment validity of the study constructs: whether the study variables are theoretically distinguished from each other (Hair & Babin, 2018). According to Cheung and Wang (2017), if the Pearson's value of the relation between two constructs is less or around 0.7, discriminant validity will occur between the constructs. Correlation analysis can also provide researchers with some insights into the magnitude and direction of the relations among the variables of interest before hypothesis testing (Bryman, 2012). In the current work, the findings of correlation analysis were not used as evidence to support/reject hypotheses since such an analytic technique lacks the ability to predict the values of an outcome variable depending on its predictor(s).

3.6.3 Hypothesis testing

Hierarchical linear modelling (HLM) (also known as multilevel modelling) was employed as the main data analysis tool to test hypotheses using the software HLM 7. The reasons are as follows. Statistically, traditional single-level regression models are not suitable for current research. In order to fill the gaps in the extant literature, present longitudinal research takes the within-person effect into account when examining the antecedents of career commitment; however, this does not mean the between-person effect can be ignored. According to Frost (2020), disturbances need to be normally distributed in regression analysis. In other words, to meet this prerequisite, disturbances in different observations should not be correlated in order to obtain a precise and pure estimation of the influence of a predictor on an outcome variable. Nevertheless, when investigating the within-person effect using longitudinal data, individual-time observations are not independent because they are nested in respondents, revealing that individual characteristics may also influence outcome variables and the need for taking between-person effects into consideration apart from within-person change (Galla et al., 2014).

Regarding single-level models, the aggregation regression model prevents researchers from capturing changes within an individual, while the disaggregation regression model does not take between-subject influence into account (Woltman et al., 2012). HLM as a multilevel analysis technique that can simultaneously evaluate within-person variance with between-person variance, and therefore is more appropriate for the present study (Galla et al., 2014). In essence, besides focusing on the effects of time-varying variables (i.e., within-person change), HLM allows for the possibility that the effects of time-varying variables can vary across different respondents. More details about the statistical rationale of HLM are explained with formulas in the following subsections.

When compared to cross-lagged analysis that is commonly used to examine the directional influence of an independent variable on a dependent variable, HLM not only allows researchers to explore the effects of time-varying predictors on time-varying outcome variables, but also enables investigation of the change/developmental trajectory of outcome variables based on growth modelling (Chen et al., 2020). Additionally, HLM is a flexible tool for dealing with missing data in longitudinal data. For example, in ANOVA (Analysis of Variance) analysis where data needs to be in a compound symmetry structure, if a respondent has missing values on time-varying variables (e.g., did not complete the Time 2 and/or Time 3 surveys), the entire case will need to be excluded (Nakai & Ke, 2011; Vallejo et al., 2011). Statistically, though HLM does not allow missing data on the between-unit level, missing values on level 1 variables are allowed (Raudenbush & Bryk, 2002). In longitudinal research, as long as a respondent completes the baseline survey, the participant with missing data in one (or more) of the waves will not be excluded from HLM analysis.

3.6.3.1 Null model test

Before running HLM analysis, a null model test (also known as an unconditional means model test or empty model test) is required to justify whether both within- and between-person effects need to be taken into account (i.e., the necessity of conducting multilevel analysis) (Raudenbush & Bryk, 2002; Kwok et al., 2008). Specifically, the null model test can be used to answer the question, “How is variation in the outcome variable Y segregated between within-person variance (variance among repeated occasions) and between-person

variance (variance across individuals)?” The null model can be exhibited using the formulas below:

Level-1:

$$Y_{ti} = \pi_{0i} + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + r_{0i}$$

In the level-1 equation, t denotes the repeated measurement occasions (e.g., 1, 2, 3...) and i indicates the respondents (1, 2, 3...). Y is modelled as a function of an intercept (i.e., π_{0i} , individual i 's initial value of Y), and a within-person deviation/random error (i.e., e_{ti}). In the level-2 equation, π_{0i} is modelled as a function of an intercept (i.e., β_{00} , grand mean of Y , that is the population intercept) and a slope (i.e., r_{0i} , the difference between individual i 's intercept and population intercept). While there are no predictors involved in the null model, e_{ti} (as an indicator of within-person variance, σ^2) and r_{0i} (as an indicator of between-person variance, τ) can be used to further calculate intra-class correlation coefficients (ICC) (Garson, 2019). The formula to calculate is shown below:

$$ICC = \frac{\tau}{\tau + \sigma^2}$$

Mathematically, ICC revealing the portion of variation in the outcome variable Y can be explained by the between-person variance (variance across individuals). According to Koo and Li (2016), the cut-off value of ICC is 0.5. If ICC is less than 0.5, it means that statistically, there is no or negligible difference among individuals regarding their Y ; in this case, attention should be paid to the within-person effect only. Multilevel level analysis or HLM analysis is not needed. If ICC is greater than the cut-off value, it indicates significant variation at the between-person level, and both within-person and between-person effects therefore should be considered. In the current research, when conducting the null model test, career commitment was treated as Y .

3.6.3.2 Longitudinal multilevel analysis

After checking and confirming ICC values, the longitudinal HLM model was adopted to examine the antecedents of career commitment (H1&H2). The model is comprised of two levels: repeated measurements at level 1 and individual attributes at level 2 (De Cuyper et al., 2012). The equations below show a traditional longitudinal HLM model. The level-1 equation shows the within-person effects of time-varying variables (i.e., time and X) on the outcome (i.e., time-varying variable Y) while the level-2 equation exhibits the influence of between-person/time-invariant variables (e.g., gender).

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(Time_{ti}) + \pi_{2i}*(X_{ti}) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Covariates) + r_{1i}$$

$$\pi_{2i} = \beta_{20}$$

This traditional model has been challenged by contemporary researchers (Raudenbush & Bryk, 2002; Zhang et al., 2009) who point out that even the common time-invariant covariates (e.g., demographic variables) are controlled, within-person change at level 1 can still be confounded by between-person differences at level 2, such as the between-person effect of the variable X. There may be, for example, a longitudinal relationship between occupational self-efficacy (X) and career commitment (Y). When examining such a relationship based on the traditional model, the intra-person influence of self-efficacy on career commitment may be affected by the attributes of the individual (e.g., a respondent who has high levels of self-efficacy). This sets barriers to capturing pure intra-person fluctuations (e.g., the positive change in self-efficacy results in positive change in career commitment) (see Henry et al., 2009).

To overcome such statistical limitations, the longitudinal multilevel analysis in the present study was conducted following Raudenbush and Bryk's (2002) approach. The equations below show a revised longitudinal HLM model. It can be seen that the time-varying variable

x is group-mean centred (centred at each respondent's own mean) at level 1 to subtract between-person variance from X (see level-1 equation), allowing a pure calculation of the within-person effect of X on Y. The level-2 equation illustrates that apart from time-invariant covariates, level 2 variables also include the group mean of X as a control variable. This improved model not only enables researchers to remove between-person confounds but also allows a simultaneous examination of the within-person and between-person effects of X on Y (Galla et al., 2014). In the current research, when investigating the relations of career commitment with its antecedents, occupational self-efficacy (H1) and family support (H2) were treated as X whereas career commitment was used as Y. The covariates (i.e., control variables) involved were age, gender, civil status and number of dependents.

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(Time_{ti}) + \pi_{2i}*(X_{ti} - Mean_X) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Mean_X) + \beta_{02}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Mean_X) + \beta_{12}*(Covariates) + r_{1i}$$

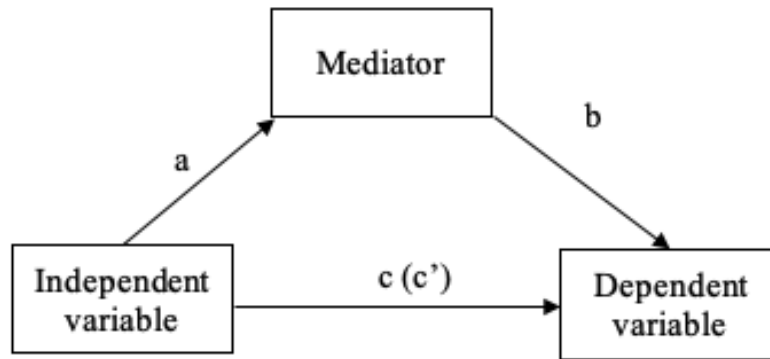
$$\pi_{2i} = \beta_{20}$$

3.6.3.3 Longitudinal multilevel mediation analysis

The causal steps approach proposed by Baron and Kenny (1986) was applied to conduct mediation analysis (see Figure 3) for H3a, b. This approach has been one of the most popular techniques to examine mediation in published articles (MacKinnon et al., 2002; Pardo & Román, 2013). According to Baron and Kenny (1986), there are four criteria to be satisfied for a construct to act as a mediator (M) between an independent variable (X) and a dependent variable (Y). The following equations are used to illustrate these four conditions.

Figure 3

Mediation Model



Condition 1: X can be used to significantly predict Y; namely, path c should be statistically significant (see equation below).

$$Y = i_1 + cX + e_1$$

Condition 2: X can be used to significantly predict M; namely, path a should be statistically significant (see equation below).

$$M = i_2 + aX + e_2$$

Condition 3: M can be used to significantly predict Y; namely, path b should be statistically significant (see equation below).

$$Y = i_3 + bM + e_3$$

Condition 4: Controlling the influence of M, the relation (i.e., path c) between X and Y is no longer significant (see equation below). In this case, M fully mediates the relation between X and Y. However, if both X and M are significant predictors of Y, it shows that M partially mediates the relation between X and Y.

$$Y = i_4 + cX + bM + e_4$$

The selection of the causal steps approach was because of its applicability in multilevel research (e.g., Hon, 2013; Tofighi et al., 2013). For example, drawing on Raudenbush and Bryk's (2002) multilevel analysis procedures, Zhang et al. (2009) tested and confirmed the applicability of Baron and Kenny's (1986) approach in HLM-based multilevel settings. As a robust and rigorous methodological paper, Zhang et al.'s (2009) research has been cited by over 1,000 multilevel studies. Consistent with the practice in the existing longitudinal works (e.g., Galla et al., 2014) and following Zhang et al.'s (2009) instructions, the longitudinal multilevel mediation analysis in the present study was conducted in four steps:

Step 1: An examination of the relation between X and Y.

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(Time_{ti}) + \pi_{2i}*(X_{ti} - Mean_X) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Mean_X) + \beta_{02}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Mean_X) + \beta_{12}*(Covariates) + r_{1i}$$

$$\pi_{2i} = \beta_{20}$$

Step 2: An examination of the relation between X and M.

Level-1:

$$M_{ti} = \pi_{0i} + \pi_{1i}*(Time_{ti}) + \pi_{2i}*(X_{ti} - Mean_X) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Mean_X) + \beta_{02}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Mean_X) + \beta_{12}*(Covariates) + r_{1i}$$

$$\pi_{2i} = \beta_{20}$$

Step 3: An examination of the relation between M and Y.

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(TIME_{ti}) + \pi_{2i}*(M_{ti} - Mean_M) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Mean_M) + \beta_{02}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Mean_M) + \beta_{12}*(Covariates) + r_{1i}$$

$$\pi_{2i} = \beta_{20}$$

Step 4: An examination of the relation between X and Y, controlling the effect of M

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i}*(Time_{ti}) + \pi_{2i}*(X_{ti} - Mean_X) + \pi_{3i}*(M_{ti} - Mean_M) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + \beta_{01}*(Mean_X) + \beta_{02}*(Mean_M) + \beta_{03}*(Covariates) + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}*(Mean_X) + \beta_{12}*(Mean_M) + \beta_{13}*(Covariates) + r_{1i}$$

$$\pi_{2i} = \beta_{20}$$

$$\pi_{3i} = \beta_{30}$$

In the current research, when investigating the relations of career commitment with its antecedents, occupational self-efficacy and family support were treated as X, affective organisational commitment as M, and career commitment as Y. The covariates (i.e., control variables) involved were age, gender, civil status and number of dependents. In each step, the level-1 model paid attention to the within-person effect while the level-2 model focused on the between-person effect.

3.6.3.4 Latent change score modelling

Latent change score modelling was applied to explore the longitudinal relation between career commitment and wellbeing (H4). Cross-lagged panel modelling as a traditional SEM-based longitudinal analysis technique can be used to test whether an antecedent variable (X) at time 1 onwards can be used to predict an outcome variable (Y) at time 2, but it is not a flexible tool to capture the change or growth in the variables and effect of change. In contrast, latent growth modelling focuses on developmental trajectories but lacks the ability to obtain

strong evidence for causal relations. Latent change score modelling (see McArdle, 2009) provides similar benefits of cross-lagged panel modelling and latent growth modelling without the abovementioned limitations (Quinn et al., 2015). Specifically, SEM-based latent change score modelling allows researchers to examine the causal relation between change in an independent variable (e.g., career commitment) and subsequent change in the outcome variable (e.g., wellbeing).

Traditionally, the difference scores (change) between two consecutive observations were simply calculated utilising the observed data (i.e., $X_t - X_{t-1}$). However, this method is statistically problematic since it does not take into account residuals (e.g., measurement errors) (Cáncer et al., 2021). Latent change score modelling enables researchers to overcome such limitations. The equations used in latent change score modelling can be expressed as follows:

$$X_{[t]} = 1 * X_{[t-1]} + 1 * \Delta X_{[t]} + e$$

$$\Delta X_{[t]} = \beta_{t-1} X_{[t-1]}$$

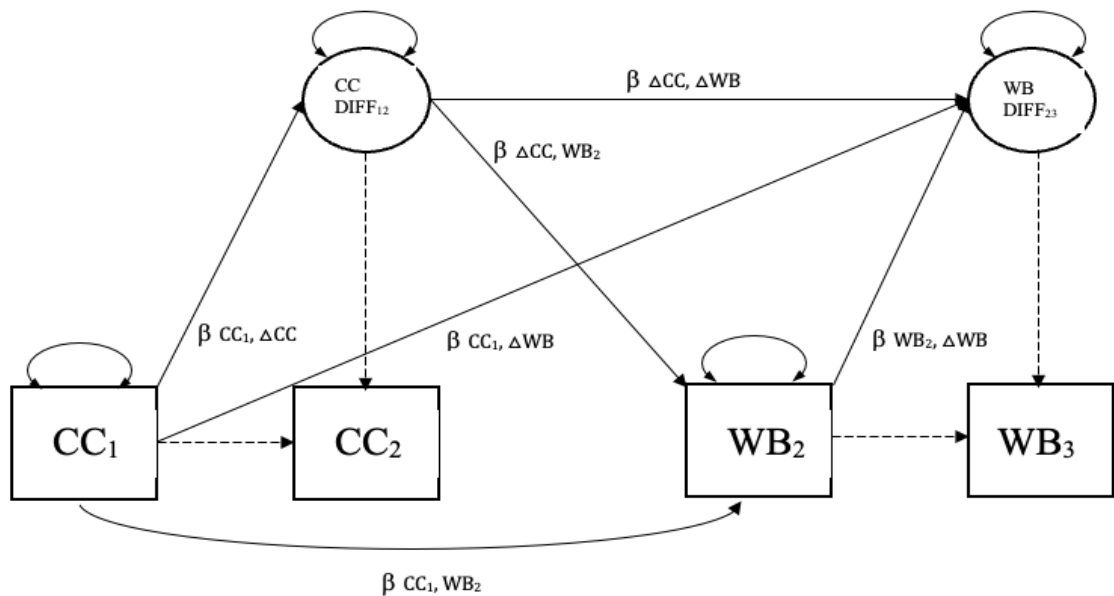
The first equation shows that X at time t is modelled as a function of X at a prior time (i.e., X_{t-1}), change in X (i.e., ΔX_t) and residuals (e.g., measurement error). In the context of SEM, given that the paths of X_t with X_{t-1} and ΔX_t have no coefficients, these paths are fixed at 1 (Cáncer et al., 2021). Thus, the latent variable can be predicted by X at the prior time point (X_{t-1}) through a self-feedback regression parameter (also known as an autoregressive parameter) β_{t-1} (see the second equation).

Treating change in X as a distinct latent variable enables researchers to split the true change values from residuals (Cáncer et al., 2021). This allows the possibility that ΔX_t as a latent variable, can also be used to predict a particular outcome variable (Y), or even the latent change in that outcome variable (ΔY). Following Selig and Preacher's (2009) instructions and consistent with the practice of extant longitudinal studies (e.g., Zacher & Rudolph, 2017), latent change score modelling was used to assess the effect of change in career commitment (ΔX) on the subsequent change in wellbeing (ΔY).

The latent change score model (see Figure 4) in the current research was created and tested using a SEM software, Mplus 8.0. In order to establish two latent variables, the paths of T2 career commitment (CC_2) with T1 career commitment (CC_1) and change in career commitment (ΔCC_{12}) and the paths of T3 wellbeing (WB_3) with T2 wellbeing (WB_2) and change in wellbeing (ΔWB_{23}) were fixed at 1; and in contrast, the influence of CC_1 on ΔCC_{12} and the influence of WB_2 on ΔWB_{23} were calculated. In the context of SEM, the model also took into consideration the potential influence of CC_1 and ΔCC_{12} on WB_2 and more importantly, the influence of ΔCC_{12} on ΔWB_{23} . Considering the latent confounding effects from between-person characteristics, the influence of CC_1 on ΔWB_{23} was also assessed. Additionally, age, gender, marital status and number of dependents were also included in the analysis as control variables.

Figure 4

Latent Change Score Model



3.6.3.5 Latent growth modelling

HLM-based latent growth modelling (also known as the unconditional growth model) (see Raudenbush & Bryk, 2002) was employed to examine the trajectory of hospitality employees' career commitment (H5a, b, c). It is widely believed that, compared to the change score analysis that is commonly used in two-wave longitudinal research, latent growth modelling

utilised in three (or more)-wave studies has more statistical power to scrutinise the growth trajectory (DeLucia & Pitts, 2006). In comparison with fixed-effect regression analysis that only emphasises average intercept and average slope, HLM-based growth modelling as a multilevel analytic technique (mixed-effect modelling) also takes the individual heterogeneity (random-effect) into account, thereby offering more conservative and precise estimations (DeLucia & Pitts, 2006; Hesser, 2015).

The equations used in latent growth modelling are illustrated as follows. The level 1 equation, particularly of interest to researchers, centres on within-person change (i.e., changes in Y over time), allowing us to observe the developmental trajectories of a time-varying outcome variable. Specifically, Y is modelled as a function of an intercept (i.e., π_{0i} , individual i 's initial value of Y), a slope (i.e., π_{1i} , growth rates of Y over time t) and an individual- and time-specific residual (i.e., e_{ti} , within-person random error).

Level-1:

$$Y_{ti} = \pi_{0i} + \pi_{1i} * (Time_{ti}) + e_{ti}$$

Level-2:

$$\pi_{0i} = \beta_{00} + r_{0i}$$

$$\pi_{1i} = \beta_{10} + r_{1i}$$

The level 2 equation reflects the influence of between-person heterogeneity on the level 1 intercept and slope. Specifically, in the level 2 equation, π_{0i} is modelled as a function of an intercept (i.e., β_{00} , grand mean of Y, that is population intercept) and a slope (i.e., r_{0i} , the difference between individual i 's intercept and population intercept). π_{1i} is modelled as a function of an intercept (i.e., β_{10} , mean growth rates of Y, that is population slope) and a slope (i.e., r_{1i} , the difference between individual i 's growth rates and population slope).

In the present study, the time-varying outcome, career commitment, was treated as Y. In order to explore the difference between early-career employees' and old-timers' career commitment trajectories, latent growth analysis was conducted for the two samples.

3.6.3.6 Time-varying effect analysis

Time-varying effect analysis was performed to examine whether the relations between career commitment and its antecedents change over time (H6a, b, c). Basically, the time-varying effect analysis is grounded in moderation analysis since it aims to investigate whether the strength of the relation between an independent variable and a dependent variable can be influenced (increased or reduced) by the moderator variable (time). The classic model of moderation analysis can be illustrated using the equation below (Baron & Kenny, 1986; Hayes, 2013) where X is treated as the independent variable, Z as the moderator, Y as the outcome variable and ϵ as the residual.

$$Y = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ + e$$

It can be seen that the model includes not only the main effects of X and Z on Y, but also the influence of an interacting variable of X and Z. Mathematically, the inclusion of the interaction variable enables the effect size of X on Y to vary depending on the value of Z. According to Hayes (2013), when the product of X and Z is statistically significantly different from zero, it shows that Z can alter the strength or even change the direction between X and Y, regardless whether the main effects of X and Z are significant or not (Baron & Kenny, 1986).

Following Singer and Willett's (2003) and Lee et al.'s (2016) instructions, the classic moderation model can be converted into a time-varying effect model (see below). Specifically, Y is the outcome variable; β_{00} as an intercept is the initial value of Y; β_{10} and β_{20} demonstrate the main effects of time and X on Y. The focal variable is the cross-product of time and X; if it is statistically significant, it shows that time moderates the relation between X and Y. In this case, it also means that the relation between X and Y changes over time. The parenthetical term entails the residuals at the within- and between-person levels. In the present study, career commitment was treated as Y, and occupational self-efficacy, family support and affective organisational commitment were utilised as X.

$$Y_{ti} = \beta_{00} + \beta_{10} * Time_{ti} + \beta_{20} * X_{ti} + \beta_{30} * Cross-product (Time * X) + [r_{0i} + r_{1i} * Time_{ti} + e_{ti}]$$

3.7 Ethical considerations

Ethical approval was needed for this study as it involved human subjects. The researcher did not conduct any data collection activities until ethical approval (Reference 21/70, see Appendix A) was obtained from the Auckland University of Technology Ethics Committee (AUTEC) on 31 March 2021. Following AUTEC's guidelines, several ethical issues were taken into consideration. Online questionnaires were used for each wave, preventing respondents from being physically harmed by interpersonal activities. Adhering to the principle of voluntary participation, another ethical issue addressed was how to ensure participants would be completely informed about the study. This was achieved by utilising participant information sheets placed on the first page of each online questionnaire. The information included in the participant information sheets would tell respondents about the voluntary nature, purposes, requirements, benefits, risks and process of the current research and the time span for filling the questionnaire. In particular, respondents were informed that they had the right to withdraw from this longitudinal study at any time.

While the longitudinal questionnaires were distributed by the research assistants, only the researcher and supervisors could view the completed questionnaires to protect the confidentiality of respondents. Although identifying information about respondents (e.g., WeChat ID) was collected, data were anonymously coded after collection and no information that could be attributed to a single individual would be employed to explain the findings of the study or published. After data analysis, the gathered digital data were stored in a locked hard drive in the primary supervisor's office at AUT university.

Social and cultural sensitivity were also taken into consideration during the research. The primary researcher grew up in China and is familiar with Chinese cultural and social contexts. The researcher had been studying in the hospitality and tourism sector for more than 10 years with both overseas and Chinese hospitality working experience. When designing the questionnaire, such experience helped the researcher make sure all the survey questions were non-sensitive, preventing respondents from feeling embarrassed or uncomfortable.

A two-way communication channel was created to facilitate mutual trust. The researcher's and supervisor's contact details could be found in the participant information sheet, and

respondents were welcome to contact us to share their concerns or ask for more details about this study. Participants were also informed that they could receive the data analysis results of this study via WeChat if they requested such or they could read the present study on Tuwhera (<https://openrepository.aut.ac.nz/>).

4. Results

4.1 Chapter preview

Chapter 4 exhibits the results of the analysis of data. The characteristics of participants are introduced at the beginning. Next, the results of reliability and validity tests for the instruments utilised in this study and model fit analysis (i.e., confirmatory factor analysis) are presented. Descriptive statistics of the variables of interest are then described, involving means, skewness and kurtosis statistics as well as zero-order correlations among the study variables. The findings of hypothesis testing are displayed at the end.

4.2 Respondent profile

Table 9 presents the characteristics of respondents. The mean age of participants was 38, with the oldest being 60 years old and the youngest being 18 years old. The median age was 38, meaning that around half of respondents were under 38 years old while the remainder were above 38 years old. In the early-career sample, half of respondents were under 30 years old while only 4.5% of participants in the old-timer sample were aged less than 30. On average, old-timer employees were ten years older than early-career employees.

Table 9*Respondent Profile*

		Total sample		Early-career		Old-timer	
		N	%	N	%	N	%
Age							
20 and under		10	3.2	10	6.5	-	-
21-30		74	23.9	67	43.5	7	4.5
31-40		80	25.8	33	21.4	47	30.1
41-50		97	31.3	25	16.2	72	46.2
51 and above		49	15.8	19	12.3	30	19.2
Total		310	100.0	154	100.0	156	100.0
		<i>Mean = 38, Median = 38, min = 18, max = 60</i>		<i>Mean = 33, Median = 31, min = 18, max = 55</i>		<i>Mean = 43, Median = 44, min = 22, max = 60</i>	
Gender							
Male		121	39.0	66	42.9	55	35.3
Female		189	61.0	88	57.1	101	64.7
Total		310	100.0	154	100.0	156	100.0
Civil status							
Single		52	16.8	36	23.4	16	10.3
In a relationship/Married		258	83.2	118	76.6	140	89.7
Total		310	100.0	154	100.0	156	100.0
Number of dependents (e.g., children and parents)							
1		28	9.0	11	7.1	17	10.9
2		79	25.5	47	30.5	32	20.5
3		71	22.9	39	25.3	32	20.5
4		66	21.3	28	18.2	38	24.4
5 and more		66	21.3	29	18.8	37	23.7
Total		310	100.0	154	100.0	156	100.0
Highest qualification							
None		55	17.7	23	14.9	32	20.5
High school qualification		100	32.3	39	25.3	61	39.1
Certificate/Diploma		119	38.4	68	44.2	51	32.7
Bachelor's degree		35	11.3	23	14.9	12	7.7
Postgraduate degree		1	.3	1	.6	-	-
Total		310	100.0	154	100.0	156	100.0
Industrial sector							
Lodging		206	66.5	91	59.1	115	73.7
Food and beverage		75	24.2	45	29.2	30	19.2
Travel		16	5.2	11	7.1	5	3.2
Other		13	4.2	7	4.5	6	3.8
Total		310	100.0	154	100.0	156	100.0
Position							
Entry level employees		226	72.9	131	85.1	95	60.9
Supervisor/Manager		82	26.5	22	14.3	60	38.5
Senior Manager		2	.6	1	.6	1	.6
Total		310	100.0	154	100.0	156	100.0
Organisational tenure (years)							
1-5		161	51.9	129	83.8	32	20.5
6-10		88	28.4	25	16.2	63	40.4
11-15		56	18.1	-	-	56	35.9
16 and above		5	1.6	-	-	5	3.2
Total		310	100.0	154	100.0	156	100.0
		<i>Mean = 6, Median = 5, min = 1, max = 23</i>		<i>Mean = 3, Median = 4, min = 1, max = 7</i>		<i>Mean = 9, Median = 9, min = 1, max = 23</i>	
Career tenure (years)							
1-5		109	35.2	109	70.8	-	-
6-10		99	31.9	45	29.2	54	34.6
11-15		71	22.9	-	-	71	45.5
16 and above		31	10.0	-	-	31	19.9
Total		310	100.0	154	100.0	156	100.0
		<i>Mean = 8, Median = 8, min = 1, max = 31</i>		<i>Mean = 3, Median = 4, min = 1, max = 7</i>		<i>Mean = 13, Median = 12, min = 8, max = 31</i>	
Annual incomes							
Less than 30,000		96	31.0	60	39.0	36	23.1
30,000 - 39,999		128	41.3	51	33.1	77	49.4
40,000 - 49,999		39	12.6	18	11.7	21	13.5
50,000 - 59,999		24	7.7	10	6.5	14	9.0
60,000 and above		23	7.4	15	9.7	8	5.1
Total		310	100.0	154	100.0	156	100.0
		<i>Mean = 35,000, Median = 30,000, min = 10,000, max = 24,000</i>		<i>Mean = 33,000, Median = 30,000, min = 10,000, max = 80,000</i>		<i>Mean = 37,000, Median = 30,000, min = 10,000, max = 240,000</i>	

In terms of gender, female respondents accounted for 61% of total participants, and male respondents made up 39%. Similar patterns where female employees were more prevalent than male employees were also observed in the early-career and old-timer samples. The majority of respondents (83.2%) were in a relationship or married. The portion of employees who were in a relationship or married in the old-timer sample (89.7%) was higher than that in the early-career sample (76.6%). Most respondents (57.4%) had one to three dependents. The portion of employees who had four and more dependents in the old-timer sample (48.1%) was higher than that in the early-career sample (37%).

With regard to educational background, the majority of respondents (88.4%) did not have a degree qualification. Specifically, 17.7% did not have any educational qualification, 32.3% had a high school qualification, and 38.4% had completed a certificate or diploma qualification. Only 11.3% had obtained a Bachelors' degree and 0.3% had a postgraduate degree. Similar ratios were also found in the early-career and old-timer samples. However, the ratio of employees who had a bachelor's degree in the early sample (14.9%) was almost twice that in the old-timer sample (7.7%).

Of 310 respondents, about two thirds were from the lodging section (66.5%) and respondents from Food and Beverage sector made up 24.2%. Similar distribution ratios were also observed in the early-career and old-timer samples. Regarding job level, over two-thirds were entry-level employees (72.9%), and the remainder were in a managerial position. The early-career and old-timer samples exhibited a similar pattern. Nevertheless, the portion of employees who were in a supervisory/managerial job position in the old-timer sample (39.1%) was nearly three times that in the early-career sample (14.9%).

With respect to organisational tenure, the mean length of employment with the present organisation was six years. Approximately half of respondents (51.9%) had worked for the current organisation for one to five years. Around 30% (28.4%) had been with their current employer between six and ten years, and about 20% (19.7%) had had organisational tenure for above ten years. On average, old-timer employees' organisational tenure was six years longer than early-career employees.

In terms of career tenure, the mean length of employment in the hospitality industry was eight years. Around one-third of respondents (35.2%) had worked in the industry for one to five years, 31.9% had been in the industry between six and ten years, and another third

(32.9%) had industry experience for more than 10 years. On average, old-timer employees' career tenure was ten years longer than early-career employees.

On average, respondents earned RMB 35,000 (USD 5,030) per year. The majority of participants (53.9%) earned between RMB 30,000 (USD 4,311) and 49,999 (USD 7,186). Nearly one-third (31%) earned less than RMB 30,000 annually, and only 15.1% had an annual income above RMB 50,000. Similar results were also found in the early-career and old-timer samples. In the early-career sample, nearly 40% of respondents earned less than RMB 30,000 per year while such portion in the old-timer sample was 23.1%. On average, old-timer employees earned RMB 4,000 (USD 575) more than early-career employees per year.

4.3 Measurement model

To inspect the reliability and validity of the measures, confirmatory factor analysis (CFA) was conducted utilising Mplus 8.0. The statistical results presented in Tables 10, 11 and 12 indicate that the theoretical model of the present study fit the data acceptably.

4.3.1 Measurement model Time 1

Table 10 delivers the CFA results based on Time 1 data. First, the X^2/df was 3.47, which was under the threshold of 5, implying a good model fit. The RMSEA was 0.08, which was an acceptable model fit index. The CFI value was 0.90 and the TLI (0.89) was also very close to 0.90, further showing signs of model fit.

The Cronbach's alpha values of all the Time 1 variables were above 0.90, demonstrating very high reliability of the instruments. All the Time 1 variables also obtained greater than 0.90 composite reliability, providing further indication of high measurement reliability. The standardised factor loadings of each measurement item were above the threshold of 0.5, and the AVE of each Time 1 variable exceeded the minimum requirement of 0.5. The convergent validity of the measurements was thus established.

Table 10*CFA Analysis and Reliability Test (Time 1)*

T1 Variables	Standardised factor loadings	Cronbach's alpha	CR	AVE
<i>Self-efficacy</i>		0.93	0.90	0.70
SE1	0.81			
SE2	0.86			
SE3	0.84			
SE4	0.84			
SE5	0.82			
SE6	0.84			
<i>Family support</i>		0.91	0.90	0.57
FS1	0.57			
FS2	0.65			
FS3	0.65			
FS4	0.78			
FS5	0.81			
FS6	0.90			
FS7	0.87			
<i>Affective organisational commitment</i>		0.95	0.91	0.78
AOC1	0.79			
AOC2	0.86			
AOC3	0.91			
AOC4	0.94			
AOC5	0.92			
<i>Career commitment</i>		0.95	0.94	0.72
CC1	0.73			
CC2	0.83			
CC3	0.88			
CC4	0.88			
CC5	0.92			
CC6	0.92			
CC7	0.76			
<i>Wellbeing</i>		0.95	0.93	0.81
WB1	0.87			
WB2	0.95			
WB3	0.93			
WB4	0.92			
WB5	0.81			

Note. Fit indices: χ^2 (394) = 1369, RMSEA = 0.08; CFI = 0.90; TLI = 0.89

4.3.2 Measurement model Time 2

Table 11 shows the CFA results based on Time 2 data. First, the X^2/df was 3.06, which was under the threshold of 5, implying a good model fit. The RMSEA was 0.08, which was an acceptable model fit index. The CFI (0.89) and the TLI (0.87) both were very close to 0.90, further showing signs of model fit.

The Cronbach's alpha values of all the Time 2 variables were above 0.90, demonstrating very high reliability of the instruments. All the Time 2 variables also obtained greater than 0.80 composite reliability, which were above the cut-off value of 0.70, providing further indication of high measurement reliability. The standardised factor loadings of each measurement item were above the threshold of 0.5, and the AVE of each Time 2 variable exceeded the minimum requirement of 0.5. The convergent validity of the measurements was thus established.

Table 11*CFA Analysis and Reliability Test (Time 2)*

T2 Variables	Standardised factor loadings	Cronbach's alpha	CR	AVE
<i>Self-efficacy</i>		0.91	0.88	0.63
SE1	0.77			
SE2	0.76			
SE3	0.82			
SE4	0.76			
SE5	0.79			
SE6	0.84			
<i>Family support</i>		0.92	0.92	0.61
FS1	0.88			
FS2	0.84			
FS3	0.81			
FS4	0.88			
FS5	0.62			
FS6	0.74			
FS7	0.65			
<i>Affective organisational commitment</i>		0.96	0.93	0.83
AOC1	0.86			
AOC2	0.91			
AOC3	0.93			
AOC4	0.93			
AOC5	0.92			
<i>Career commitment</i>		0.96	0.96	0.76
CC1	0.76			
CC2	0.83			
CC3	0.85			
CC4	0.90			
CC5	0.95			
CC6	0.93			
CC7	0.88			
<i>Wellbeing</i>		0.96	0.94	0.84
WB1	0.94			
WB2	0.97			
WB3	0.96			
WB4	0.89			
WB5	0.80			

Note. Fit indices: χ^2 (395) = 1210, RMSEA = 0.08; CFI = 0.89; TLI = 0.87

4.3.3 Measurement model Time 3

Table 12 exhibits the CFA results based on Time 3 data. First, the X^2/df was 2.73, which was under the threshold of 5, implying a very good model fit. The RMSEA was 0.07, which was a satisfactory model fit index. The CFI value was 0.90 and the TLI (0.88) was also very close to 0.90, further showing signs of model fit.

The Cronbach's alpha values of all the Time 3 variables were above 0.90, demonstrating very high reliability of the instruments. All the Time 3 variables also obtained greater than 0.90 composite reliability, providing further indication of high measurement reliability. The standardised factor loadings of each measurement item were above the threshold of 0.5, and the AVE of each Time 3 variable exceeded the minimum requirement of 0.5. The convergent validity of the measurements was thus established.

Table 12*CFA Analysis and Reliability Test (Time 3)*

T3 Variables	Standardised factor loadings	Cronbach's alpha	CR	AVE
<i>Self-efficacy</i>		0.93	0.90	0.70
SE1	0.79			
SE2	0.91			
SE3	0.85			
SE4	0.85			
SE5	0.77			
SE6	0.83			
<i>Family support</i>		0.95	0.95	0.71
FS1	0.80			
FS2	0.77			
FS3	0.74			
FS4	0.88			
FS5	0.87			
FS6	0.90			
FS7	0.93			
<i>Affective organisational commitment</i>		0.96	0.92	0.82
AOC1	0.80			
AOC2	0.88			
AOC3	0.94			
AOC4	0.94			
AOC5	0.95			
<i>Career commitment</i>		0.96	0.96	0.79
CC1	0.77			
CC2	0.90			
CC3	0.93			
CC4	0.90			
CC5	0.94			
CC6	0.93			
CC7	0.85			
<i>Wellbeing</i>		0.95	0.93	0.79
WB1	0.86			
WB2	0.93			
WB3	0.94			
WB4	0.87			
WB5	0.85			

Note. Fit indices: χ^2 (395) = 1080, RMSEA = 0.07; CFI = 0.90; TLI = 0.88

4.4 Descriptive analysis

Table 13 shows the means, standard deviations, skewness statistics, standard errors, kurtosis statistics and standard errors of the study variables. In terms of the Level 1 variables, the antecedent variables such as occupational self-efficacy, family support and affective organisational commitment had mean values of 5.68 (SD = 0.92), 5.51 (SD = 0.94) and 5.62 (SD = 1.04), respectively. The focal construct (i.e., career commitment) yielded a mean of 5.10 (SD = 1.17), and the outcome variable (i.e., wellbeing) of career commitment had a mean of 5.09 (SD = 1.27). For the Level 2 control variables, age had a mean of 38.26 (SD = 10.84), indicating that the average age for respondents was around 38 years old. The mean score of number of dependents was 3.30 (SD = 1.46), implying that respondents had three dependents (e.g., children and parents) on average. Skewness statistics of all the variables of interest were lower than the cut-off value of |2|, and Kurtosis statistics of all study variables were less than the cut-off value of |7|. Taken together, the results show that the distribution of the variables was normal.

Table 13

Means, Standard Deviations, Skewness, and Kurtosis Statistics and Standard Errors for All Study Variables

	Mean	SD	Skewness		Kurtosis	
			Statistics	S.E.	Statistics	S.E.
<i>Level 1</i>						
1. Occupational self-efficacy	5.68	0.92	-1.38	0.13	4.03	0.27
2. Family support	5.51	0.94	-0.98	0.13	1.57	0.27
3. Affective organisational commitment	5.62	1.04	-1.28	0.13	2.66	0.27
4. Career commitment	5.10	1.17	-0.40	0.13	-0.28	0.27
5. Wellbeing	5.09	1.27	-0.78	0.13	0.33	0.27
<i>Level 2</i>						
1. Age	38.26	10.84	-0.13	0.13	-1.19	0.27
2. Gender	-	-	-	-	-	-
3. Marital status	-	-	-	-	-	-
4. Number of dependents	3.30	1.46	0.40	0.13	-0.04	0.27

Zero-order correlation analysis was conducted to preliminarily check the latent relations among the study variables as well as the discriminant validity of the main constructs. The results are displayed in Table 14. At level 1, as expected, there were significant and positive relations of career commitment with the antecedent variables such as

occupational self-efficacy ($r = 0.47, p < 0.01$), family support ($r = 0.57, p < 0.01$) and affective organisational commitment ($r = 0.66, p < .05$). Occupational self-efficacy ($r = 0.48, p < 0.01$) and family support ($r = 0.56, p < 0.01$) also had positive correlations with affective organisational commitment. A positive relation between career commitment and wellbeing ($r = 0.72, p < 0.01$) was also observed. The correlation coefficients of all the relations among the Level 1 constructs were below or around 0.7, confirming the discriminant validity of the study variables.

Table 14

Correlations of All Study Variables

Variables	1	2	3	4	5
<u>Level 1</u>					
1. Occupational self-efficacy	1				
2. Family support	0.51**	1			
3. Affective organisational commitment	0.48**	0.56**	1		
4. Career commitment	0.47**	0.57**	0.66**	1	
5. Wellbeing	0.46**	0.57**	0.55**	0.72**	1
<u>Level 2</u>					
1. Age	1				
2. Gender	0.03	1			
3. Marital status	0.45**	0.20**	1		
4. Number of dependents	-0.02	0.16**	0.12*	1	

* $p < 0.05$, ** $p < 0.01$

At level 2, age was positively correlated with marital status ($r = 0.45, p < 0.01$), suggesting that the older the respondents, the more likely they were in a relationship or to have a married status. It was also observed that gender had a significant and positive relation with the number of dependents ($r = 0.20, p < 0.01$), indicating that female respondents had more dependents than male participants. There was also a significant relation between marital status and the number of dependents ($r = 0.12, p < 0.05$), showing that, compared to respondents who were single, married employees had more dependents.

4.5 Testing the hypotheses

Before testing the main hypotheses, unconditional models were estimated to check the intraclass correlation coefficients (ICC) for each time-varying construct. Table 15 presents that the intercept of the focal construct (i.e., career commitment) was statistically significant ($p < 0.001$). And the ICC for career commitment were 0.76, reflecting that 76% of the variance in career commitment was from the between-person level, and 24% of the variance was attributable to the within-person level. Besides, the ICC scores were 0.68 for occupational self-efficacy, 0.66 for family support and 0.74 for affective organisational commitment. The ICC values for each time-varying construct were above 0.5, indicating good test-retest reliability and stable measurement among three-time waves, justifying the rationality of conducting multilevel analysis.

Table 15

HLM Results of Null Model Test

Career commitment	
Intercept	5.09***
ICC 1	0.76
Reliability	0.86
Deviance	1932
*** $p < 0.001$	

4.5.1 Occupational self-efficacy (H1)

Longitudinal multilevel modelling was employed to examine the relation between occupational self-efficacy and career commitment (H1). The results of the multilevel analysis are shown in Table 16. The baseline model (Model 1) revealed that at the within-person level (Level 1), time ($b = -0.01, p > 0.05$) was not a significant predictor of career commitment. Besides, at the between-person level (Level 2), the demographic variables of age ($b = 0.01, p > 0.05$), gender ($b = -0.10, p > 0.05$), marital status ($b = 0.14, p > 0.05$) and number of dependents ($b = -0.06, p > 0.05$) did not significantly influence career commitment. These covariates were thus less likely to confound the relation between occupational self-efficacy and career commitment in the present research.

Table 16

HLM Results of the Effect of Occupational Self-Efficacy on Career Commitment

	Model 1	Model 2
Intercept	5.07	5.12***
<u>Level 1</u>		
Time	-0.01	0.02
Occupational self-efficacy		0.34***
<u>Level 2</u>		
Age	0.01	0.01
Gender	-0.10	0.03
Marital status	0.14	-0.03
Number of dependents	-0.06	-0.02
Occupational self-efficacy		0.55***
<i>Deviance</i>	1932	1833

*** $p < 0.001$

Model 2 showed that at the within-person level (Level 1), after controlling for the effect of time, occupational self-efficacy ($b = 0.34, p < 0.001$) significantly predicted career commitment. Besides, at the between-person level (Level 2), after controlling for the effects of age, gender, marital status and number of dependents, occupational self-efficacy ($b = 0.55, p < 0.001$) also significantly predicted career commitment.

Compared to the baseline model, Model 2 obtained better model fit with a significant reduction in deviance (from 1,932 to 1,833). Taken together, the results demonstrated that occupational self-efficacy was significantly and positively related to career commitment at both the within- and between-person levels. H1 was thus supported.

4.5.2 Family support (H2)

Longitudinal multilevel modelling was employed to examine the relation between family career support and career commitment (H2). The results of the multilevel analysis are shown in Table 17. The baseline model (Model 1) revealed that at the within-person level (Level 1), time ($b = -0.01$, $p > 0.05$) was not a significant predictor of career commitment. Besides, at the between-person level (Level 2), the demographic variables of age ($b = 0.01$, $p > 0.05$), gender ($b = -0.10$, $p > 0.05$), marital status ($b = 0.14$, $p > 0.05$) and number of dependents ($b = -0.06$, $p > 0.05$) did not significantly influence career commitment. These covariates were, therefore, less likely to confound the relation between family support and career commitment in the present research.

Table 17

HLM Results of the Effect of Family Support on Career Commitment

	Model 1	Model 2
Intercept	5.07	5.02***
<u>Level 1</u>		
Time	-0.01	0.08
Family support		0.31***
<u>Level 2</u>		
Age	0.01	-0.01
Gender	-0.10	-0.09
Marital status	0.14	0.18
Number of dependents	-0.06	-0.04
Family support		0.70***
<i>Deviance</i>	1932	1802

*** $p < 0.001$

Model 2 showed that at the within-person level (Level 1), after controlling for the effect of time, family support ($b = 0.31$, $p < 0.001$) significantly predicted career commitment. Besides, at the between-person level (Level 2), after controlling for the effects of age, gender, marital status and number of dependents, family support ($b = 0.70$, $p < 0.001$) also significantly predicted career commitment.

Compared to the baseline model, Model 2 obtained better model fit with a significant reduction in deviance (from 1,932 to 1,802). Taken together, the results demonstrated that family support was significantly and positively related to career commitment at both the within- and between-person levels. H2 was thus supported.

4.5.3 The mediating role of affective organisational commitment (H3a, b)

4.5.3.1 Occupational self-efficacy, affective organisational commitment and career commitment (H3a)

Longitudinal multilevel mediation modelling was employed to examine the mediating role of affective organisational commitment in the relation between occupational self-efficacy and career commitment at both the within- and between-person levels (H3a). Multilevel mediation analysis was performed in four steps (see Table 18) following Baron and Kenny's (1986) and Zhang et al.'s (2009) instructions.

Table 18

HLM Results of the Mediation Effect of Affective Organisational Commitment between Occupational Self-Efficacy and Career Commitment

	CC	OC	CC	CC
Intercept	5.12***	5.73***	5.01***	5.05***
<i>Level 1</i>				
Time	0.02	-0.10	0.10	0.09
Occupational self-efficacy	0.34***	0.36***		0.18*(0.34***)
Affective organisational commitment			0.43***	0.38***
<i>Level 2</i>				
Age	0.01	0.01*	-0.01	-0.01
Gender	0.03	0.15	-0.12	-0.06
Marital status	-0.03	-0.20	0.20	0.10
Number of dependents	-0.02	0.02	-0.04	-0.03
Occupational self-efficacy	0.55***	0.49***		0.28(0.55***)
Affective organisational commitment			0.70***	0.56***
<i>Deviance</i>	1833		1683	1673

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Within-person level (Level 1)

In Step 1, the relation between the independent variable (i.e., occupational self-efficacy) and the outcome variable (i.e., career commitment) was tested. The results showed that after controlling for the effect of time, there was a significant relation between occupational self-efficacy and career commitment ($b = 0.34$, $p < 0.001$) at the within-person level.

In Step 2, the relation between the independent variable (i.e., occupational self-efficacy) and the mediator (i.e., affective organisational commitment) was checked. The results showed that after controlling for the effect of time, there was a significant relation between occupational self-efficacy and affective organisational commitment ($b = 0.36, p < 0.001$) at the within-person level.

In Step 3, the relation between the mediator (i.e., affective organisational commitment) and the outcome variable (i.e., career commitment) was investigated. The results showed that after controlling for the effect of time, there was a significant relation between occupational self-efficacy and affective organisational commitment ($b = 0.43, p < 0.001$) at the within-person level.

In Step 4, the relations of the outcome variable (i.e., career commitment) with the independent variable (i.e., occupational self-efficacy) and the mediator (i.e., affective organisational commitment) were analysed in the same model to explore the latent mediating effect. The results showed that after controlling for the effect of time, both occupational self-efficacy ($b = 0.18, p < 0.05$) and affective organisational commitment ($b = 0.38, p < 0.001$) significantly predicted career commitment at the within-person level. However, compared to the Step 1 results, the effect size of occupational self-efficacy decreased from 0.34 to 0.18, suggesting affective organisational commitment partially mediated the relation between occupational self-efficacy and career commitment at the within-person level.

Between-person level (Level 2)

In Step 1, the relation between the independent variable (i.e., occupational self-efficacy) and the outcome variable (i.e., career commitment) was tested. The results showed that after controlling for the effects of the covariates (i.e., age, gender, marital status and number of dependents), there was a significant relation between occupational self-efficacy and career commitment ($b = 0.55, p < 0.001$) at the between-person level.

In Step 2, the relation between the independent variable (i.e., occupational self-efficacy) and the mediator (i.e., affective organisational commitment) was checked. The results showed that after controlling for the effects of the covariates, there was a significant relation between occupational self-efficacy and affective organisational commitment ($b = 0.49, p < 0.001$) at the between-person level.

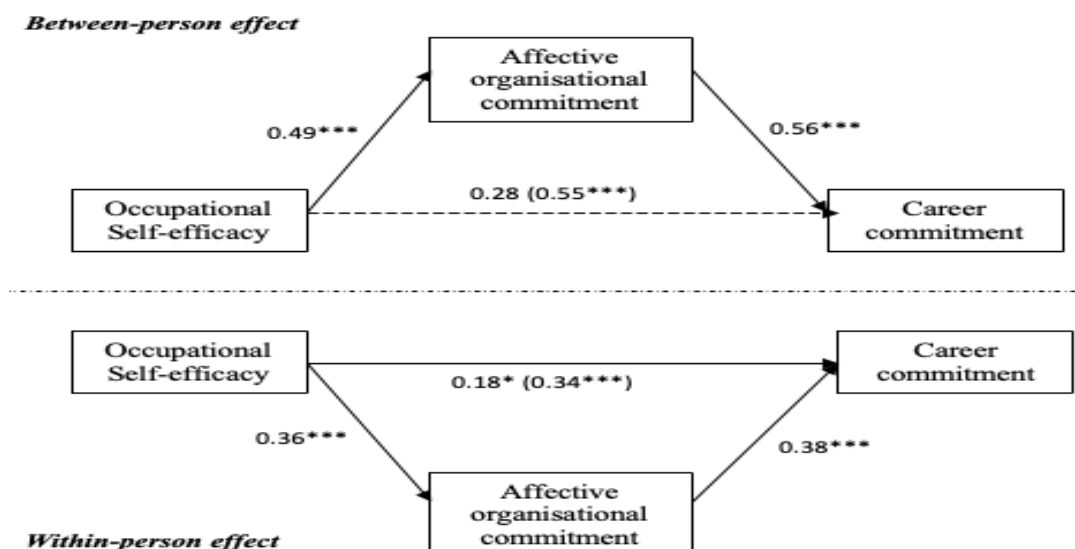
In Step 3, the relation between the mediator (i.e., affective organisational commitment) and the outcome variable (i.e., career commitment) was investigated. The results showed that after controlling for the effects of the covariates, there was a significant relation between occupational self-efficacy and affective organisational commitment ($b = 0.70, p < 0.001$) at the between-person level.

In Step 4, the relations of the outcome variable (i.e., career commitment) with the independent variable (i.e., occupational self-efficacy) and the mediator (i.e., affective organisational commitment) were analysed in the same model to explore the latent mediating effect. The results showed that after controlling for the effects of the covariates, affective organisational commitment ($b = 0.56, p < 0.001$) significantly predicted career commitment, while the relation between occupational self-efficacy and career commitment became insignificant ($b = 0.28, p > 0.05$), suggesting affective organisational commitment fully mediated the relation between occupational self-efficacy and career commitment at the between-person level.

Compared to the models in Step 1 and Step 3, the final mediating model obtained better model fit with a significant reduction in deviance. Taken together, the results (see Figure 5) demonstrated that affective organisational commitment mediated the relation between occupational self-efficacy and career commitment at both the within- and between-person levels. H3(a) was thus supported.

Figure 5

Multilevel Mediation Model for the Mediation Effect of Affective Organisational Commitment on the Relation between Occupational Self-Efficacy and Career Commitment



4.5.3.2 Family support, affective organisational commitment and career commitment (H3b)

Longitudinal multilevel mediation modelling was employed to examine the mediating role of affective organisational commitment in the relation between family support and career commitment at both the within- and between-person levels (H3b). Multilevel mediation analysis was performed in four steps (see Table 19) following Baron and Kenny's (1986) and Zhang et al.'s (2009) instructions.

Table 19

HLM Results of the Mediation Effect of Affective Organisational Commitment between Family Support and Career Commitment

	CC	OC	CC	CC
Intercept	5.02***	5.63***	5.01***	5.01***
<i>Level 1</i>				
Time	0.08	-0.05	0.10	0.11
Family support	0.31***	0.26***		0.20***(0.31***)
Affective organisational commitment			0.43***	0.38***
<i>Level 2</i>				
Age	-0.01	0.01	-0.01	-0.01
Gender	-0.09	0.03	-0.12	-0.12
Marital status	0.18	0.01	0.20	0.18
Number of dependents	-0.04	-0.01	-0.04	-0.04
Family support	0.70***	0.67***		0.44***(0.70***)
Affective organisational commitment			0.70***	0.45***
<i>Deviance</i>	1802		1683	1656

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Within-person level (Level 1)

In Step 1, the relation between the independent variable (i.e., family support) and the outcome variable (i.e., career commitment) was tested. The results showed that after controlling for the effect of time, there was a significant relation between family support and career commitment ($b = 0.31$, $p < 0.001$) at the within-person level.

In Step 2, the relation between the independent variable (i.e., family support) and the mediator (i.e., affective organisational commitment) was checked. The results showed that after controlling for the effect of time, there was a significant relation between family

support and affective organisational commitment ($b = 0.26, p < 0.001$) at the within-person level.

In Step 3, the relation between the mediator (i.e., affective organisational commitment) and the outcome variable (i.e., career commitment) was investigated. The results showed that after controlling for the effect of time, there was a significant relation between affective organisational commitment and career commitment ($b = 0.43, p < 0.001$) at the within-person level.

In Step 4, the relations of the outcome variable (i.e., career commitment) with the independent variable (i.e., family support) and the mediator (i.e., affective organisational commitment) were analysed in the same model to explore the latent mediating effect. The results showed that after controlling for the effect of time, both family support ($b = 0.20, p < 0.001$) and affective organisational commitment ($b = 0.38, p < 0.001$) significantly predicted career commitment at the within-person level. Compared to the Step 1 results, the effect size of family support decreased from 0.31 to 0.20, suggesting affective organisational commitment partially mediated the relation between family support and career commitment at the within-person level.

Between-person level (Level 2)

In Step 1, the relation between the independent variable (i.e., family support) and the outcome variable (i.e., career commitment) was tested. The results showed that after controlling for the effects of the covariates (i.e., age, gender, marital status and number of dependents), there was a significant relation between family support and career commitment ($b = 0.70, p < 0.001$) at the between-person level.

In Step 2, the relation between the independent variable (i.e., family career support) and the mediator (i.e., affective organisational commitment) was checked. The results showed that after controlling for the effects of the covariates, there was a significant relation between family support and affective organisational commitment ($b = 0.67, p < 0.001$) at the between-person level.

In Step 3, the relation between the mediator (i.e., affective organisational commitment) and the outcome variable (i.e., career commitment) was investigated. The results showed that after controlling for the effects of the covariates, there was a significant relation

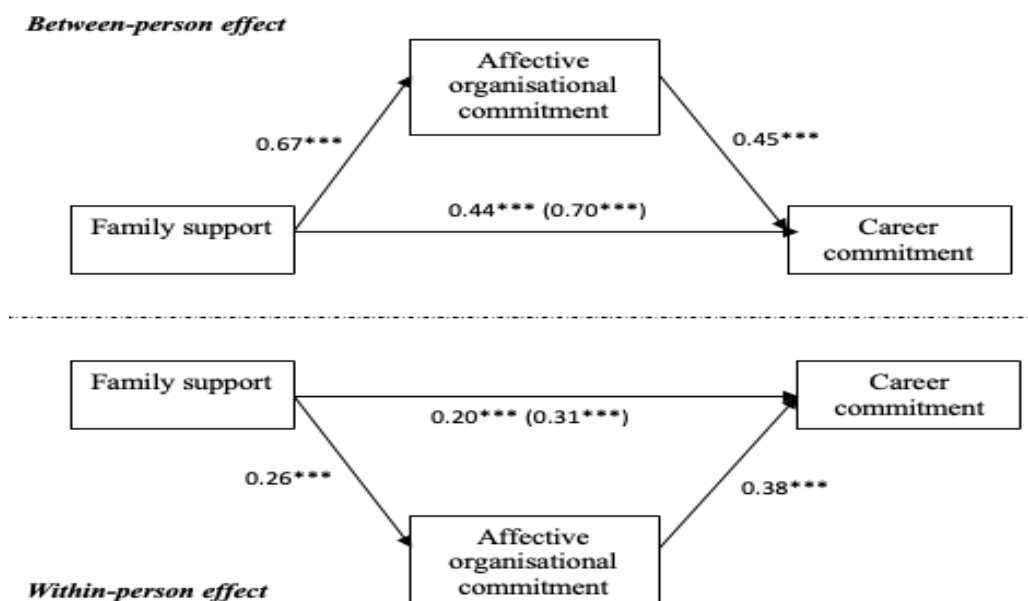
between affective organisational commitment and career commitment ($b = 0.70, p < 0.001$) at the between-person level.

In Step 4, the relations of the outcome variable (i.e., career commitment) with the independent variable (i.e., family support) and the mediator (i.e., affective organisational commitment) were analysed in the same model to explore the latent mediating effect. The results showed that after controlling for the effects of the covariates, both family support ($b = 0.44, p < 0.001$) and affective organisational commitment ($b = 0.45, p < 0.001$) significantly predicted career commitment at the between-person level. Compared to the Step 1 results, the effect size of family support decreased from 0.70 to 0.44, suggesting affective organisational commitment partially mediated the relation between family support and career commitment at the between-person level.

Compared to the models in Step 1 and Step 3, the final mediating model obtained better model fit with a significant reduction in deviance. Taken together, the results demonstrated (see Figure 6) that affective organisational commitment mediated the relation between family support and career commitment at both the within- and between-person levels. H3(b) was thus supported.

Figure 6

Multilevel Mediation Model for the Mediation Effect of Affective Organisational Commitment on the Relation between Family Support and Career Commitment



4.5.4 The outcome of career commitment: Wellbeing (H4a, b)

Latent change score modelling was applied to examine the longitudinal relation between career commitment and wellbeing (H4). The results of the longitudinal SEM analysis were presented in Table 20 and Figure 7. The goodness of fit test demonstrated that the latent change score model fit the data well (χ^2 (328) = 860, RMSEA = 0.07; CFI = 0.92; TLI = 0.91). The results also revealed that after controlling for the effects of age ($b = -0.01, p > 0.05$), gender ($b = 0.09, p > 0.05$), marital status ($b = -0.03, p > 0.05$) and number of children ($b = -0.03, p > 0.05$), both T1 career commitment ($b = 0.93, p < 0.001$) and T1-T2 change in career commitment ($b = 0.70, p < 0.001$) significantly and positively predicted T2 wellbeing. H4(a) thus was supported.

Table 20

The Influence of Career Commitment on Wellbeing based on Latent Change Score

Modelling

Predictors	T2 Wellbeing	T2-T3 change in Wellbeing
T1 Age	-0.01 (0.01)	0.01 (0.01)
T1 Gender	0.09 (0.14)	-0.15 (0.12)
T1 Marital status	-0.03 (0.18)	-0.21 (0.15)
T1 Number of dependents	-0.03 (0.05)	0.06 (0.03)
T1 Career commitment	0.93*** (0.08)	0.40*** (0.10)
T2 wellbeing	-	-0.47*** (0.07)
T1-T2 change in career commitment	0.70*** (0.11)	0.22* (0.10)

Note. Unstandardised estimates and standard errors (in parentheses) are shown.

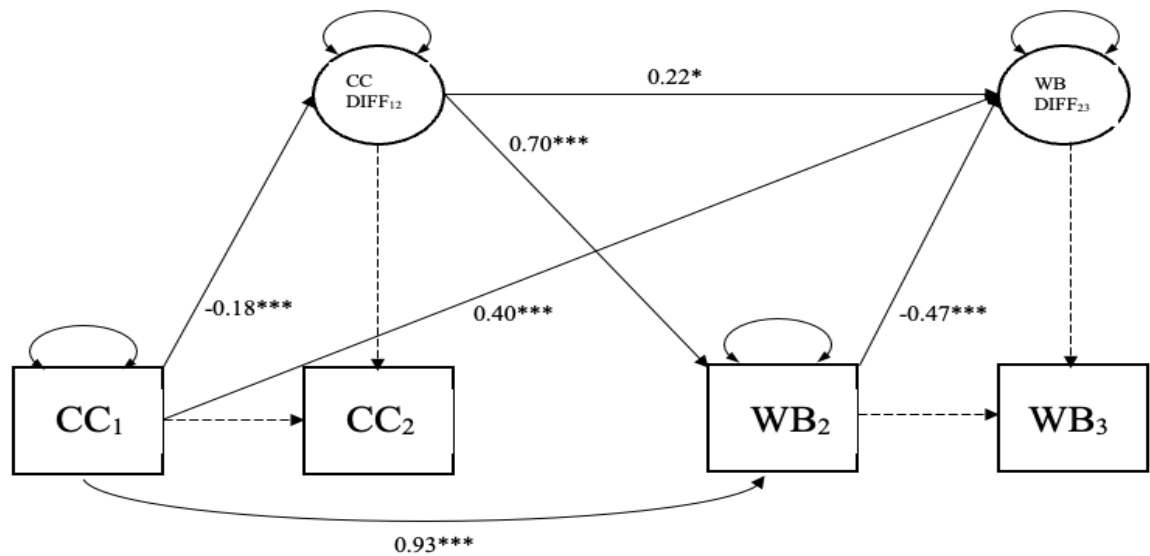
* $p < 0.05$, *** $p < 0.001$

After controlling for the effects of demographic variables, T1 career commitment ($b = 0.40, p < 0.001$) and T2 wellbeing ($b = -0.47, p < 0.001$), T1-T2 change in career commitment ($b = 0.22, p < .05$) was found to significantly and positively predict T2-T3 change in wellbeing. This implies that T1-T2 change in career commitment was positively related to T2-T3 change in wellbeing such that an increase (decline) in career commitment predicted a subsequent increase (decline) in wellbeing. Hence, H4(b) was supported.

Figure 7

The Influence of Career Commitment on Wellbeing based on Latent Change Score

Modelling



4.5.5 Trajectory of career commitment (H5a, b, c)

Before testing the hypotheses related to the trajectory of career commitment, unconditional models were estimated to check the ICC of career commitment in the total sample, early-career sample and old-timer sample. Table 21 illustrates that the intercept of the focal construct (i.e., career commitment) was statistically significant ($p < 0.001$) in each sample. And the ICC of career commitment were 0.75 in the total sample, 0.76 in the early-career sample and 0.75 in the old-timer sample. The ICC of the interest variable were above 0.5 in each sample, justifying the rationality of conducting multilevel analysis on each sample.

Table 21

HLM Results of Subgroup Null Model Test

	Total (N = 310)	Early-career (N = 154)	Old-timer (N = 156)
Intercept	5.09***	5.03***	5.15***
ICC 1	0.75	0.76	0.75
Reliability	0.86	0.84	0.87
Deviance	1932	931	996

*** $p < 0.001$

Unconditional latent growth analysis was conducted to examine the trajectory of hospitality employees' career commitment. The results are presented in Table 22 and Figure 8. For the total sample, the findings showed that while the intercept was significant (5.12, $p < 0.001$), time ($b = -0.01$ $p > 0.05$) was not a significant predictor of career commitment.

Table 22

HLM Results of Latent Growth Modelling (Unconditional Growth Model)

	Total (N = 310)	Early-career (N = 154)	Old-timer (N = 156)
Intercept	5.12***	5.16***	5.05***
<u>Level 1</u>			
Time	-0.01	-0.19***	0.12***
Deviance	1932 (1932)	907 (931)	992 (996)

Note. Deviances for the null model (in parentheses) are shown.

*** $p < 0.001$

Regarding the trajectory of early-career employees' career commitment, the intercept was 5.16 ($p < 0.001$) on a seven-point Likert scale, revealing their mean career commitment level at the initial stage. The mean growth rate was -0.19 ($p < 0.001$), implying that early-

career employees' career commitment decreased by 0.19 units at each time point (H5b supported).

Regarding the trajectory of old-timers' career commitment, the intercept was 5.05 ($p < 0.001$) on a seven-point Likert scale, revealing their mean career commitment level at the initial stage. Compared to early-career employees (5.16, $p < 0.001$), old-timers (5.05, $p < 0.001$) reported lower initial career commitment (H5a supported). The mean growth rate was 0.12 ($p < 0.001$), implying that old-timers' career commitment increased by 0.12 units at each time point (H5c supported).

Supplementary analysis

A simple slope analysis was conducted to confirm the statistical difference between the slopes of early-career employees' and old-timers' career commitment trajectories. As shown in Figure 9, there was a significant interaction effect of time and career stage (early-career = 0, old-timer = 1, $b = 0.31$, $p < 0.001$), and early-career employees had a relatively higher level of initial career commitment. The figure also exhibits that the slope of career commitment change was negative for early-career employees, while the slope of change was positive for old-timers. Taken together, the findings of both latent growth analysis and simple slope analysis provide support for H5(a, b, c).

Figure 8

Career Commitment Trajectories of the Total Sample, Early-Career Employees and Old-Timers based on Latent Growth Modelling

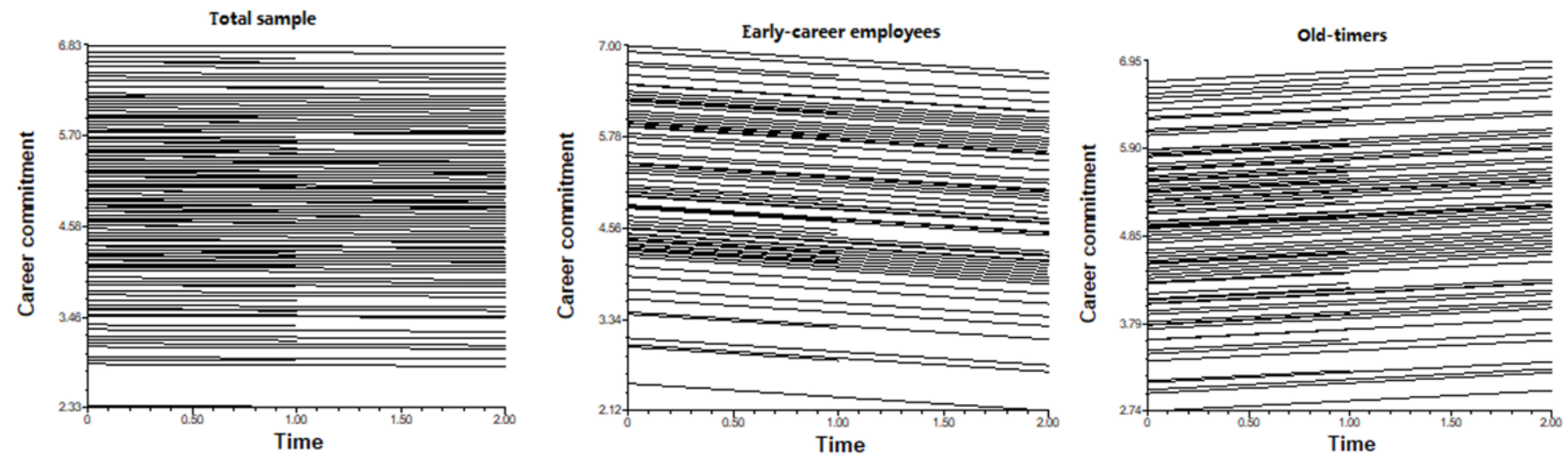
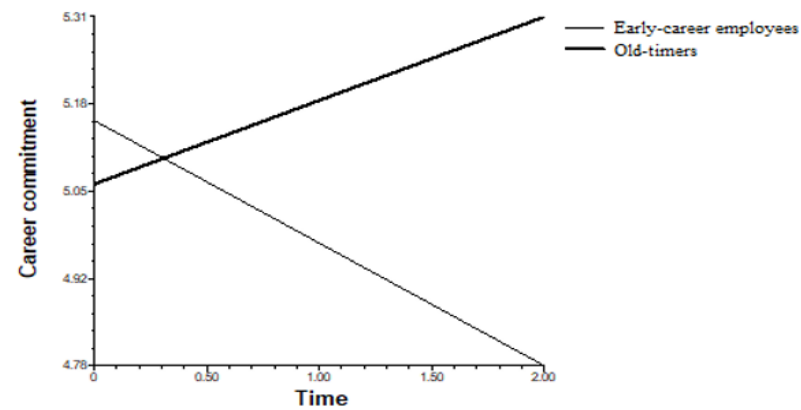


Figure 9

Statistical Difference between the Slopes of Early-Career Employees' and Old-Timers' Career Commitment Trajectories



4.5.6 Time-varying effect (time as a moderator) (H6a, b, c)

4.5.6.1 The accelerating effect of occupational self-efficacy (H6a)

The means and standard errors of occupational self-efficacy and career commitment for both early-career and old-timer samples can be found in Table 23. Time-varying effect analysis was conducted to examine whether the effect of occupational self-efficacy on career commitment may vary over time (H6a). The results are presented in Table 24. The results indicated that the time variable was a significant predictor of the growth trajectory of career commitment in both early-career employees ($b = -0.14, p < 0.01$) and old-timer samples ($b = 0.10, p < 0.01$); specifically, early-career employees' career commitment decreased over time while old-timers' increased over time, providing additional support for H5.

Table 23

Means and Standard Errors of Occupational Self-Efficacy and Career Commitment (Subgroup Analysis)

Time	Early-career				Old-timer			
	Occupational Self-efficacy		Career commitment		Occupational Self-efficacy		Career commitment	
	M	S.E.	M	S.E.	M	S.E.	M	S.E.
Time 1	5.59	0.07	5.15	0.09	5.75	0.07	5.04	0.09
Time 2	5.53	0.08	4.98	0.13	5.76	0.06	5.13	0.10
Time 3	5.49	0.09	4.89	0.14	5.77	0.07	5.28	0.10

Table 24

HLM Results of the Time-Varying Effect of Occupational Self-Efficacy on Career Commitment

	Early-career	Old-timer
Intercept	5.36***	4.76***
<i>Level 1</i>		
Time (A)	-0.14**	0.10**
Occupational self-efficacy (B)	0.53***	0.43***
A x B	-0.05	0.11*
<i>Level 2</i>		
Age	0.02*	0.01
Gender	-0.07	-0.02
Marital status	-0.24	0.34
Number of dependents	0.01	-0.09
<i>Deviance</i>	871 (931)	947 (996)

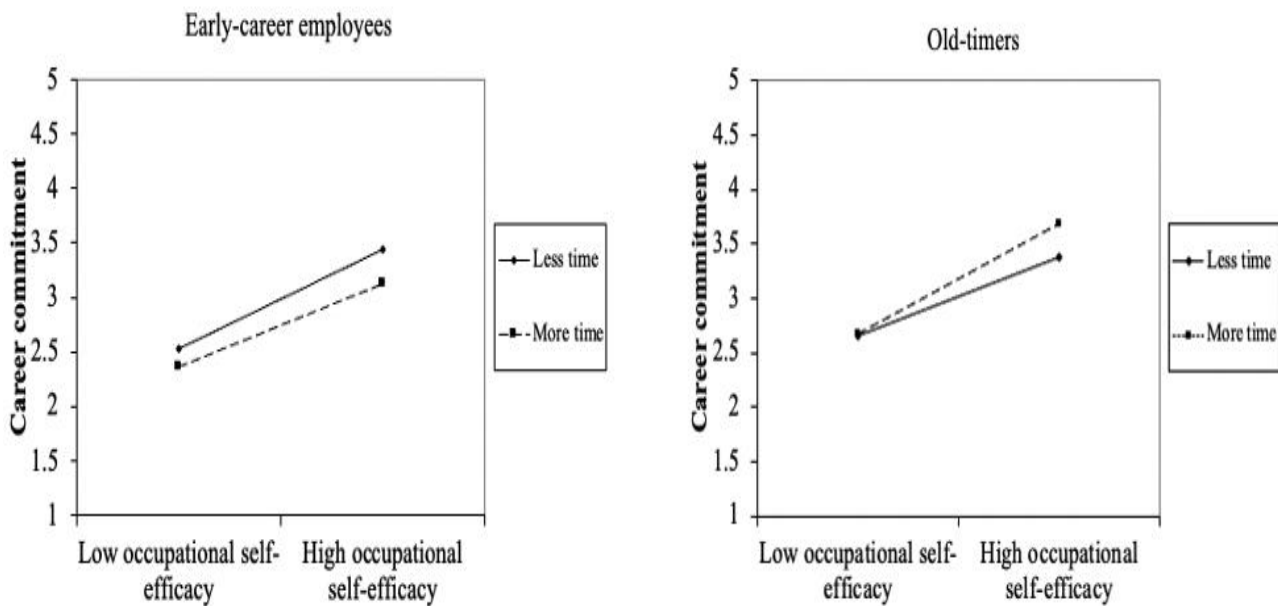
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Regarding the influence of occupational self-efficacy on career commitment, a significant and positive relation between occupational efficacy and career commitment was captured in both early-career ($b = 0.53, p < 0.001$) and old-timer samples ($b = 0.43, p < 0.001$), providing additional support for H1.

A significant interaction effect of occupational self-efficacy with time on career commitment was observed in the old-timer sample ($b = 0.11, p < 0.05$) but not in the early-career sample ($b = -0.05, p > 0.05$) (see Figure 10). This indicates that the effect of old-timers' occupational self-efficacy on their career commitment varied over time; more specifically, for old-timers, the effect of occupational self-efficacy on career commitment increased over time. H6a, therefore, was supported.

Figure 10

The Time-Varying Effect of Occupational Self-Efficacy on Career Commitment



4.5.6.2 The decelerating effect of family support (H6b)

The means and standard errors of family support and career commitment for both early-career and old-timer samples can be found in Table 25. Time-varying effect analysis was conducted to examine whether the effect of family support on career commitment may vary over time (H6b). The results are presented in Table 26. The results indicated that the time variable was a significant predictor of the growth trajectory of career commitment in both early-career employees ($b = -0.15, p < 0.01$) and old-timer samples ($b = 0.11, p < 0.01$); specifically, early-career employees' career commitment decreased over time while old-timers' increased over time, providing additional support for H5.

Table 25

Means and Standard Errors of Family Support and Career Commitment (Subgroup Analysis)

Time	Early-career				Old-timer			
	Family support		Career commitment		Family support		Career commitment	
	M	S.E.	M	S.E.	M	S.E.	M	S.E.
Time 1	5.49	0.07	5.15	0.09	5.53	0.08	5.04	0.09
Time 2	5.44	0.09	4.98	0.13	5.62	0.08	5.13	0.10
Time 3	5.43	0.10	4.89	0.14	5.56	0.09	5.28	0.10

Table 26

HLM Results of the Time-Varying Effect of Family Support on Career Commitment

	Early-career	Old-timer
Intercept	5.28***	4.80***
<i>Level 1</i>		
Time (A)	-0.15**	0.11**
Family support (B)	0.63***	0.48***
A x B	-0.18**	0.02
<i>Level 2</i>		
Age	0.01	0.01
Gender	-0.18	-0.02
Marital status	-0.06	0.29
Number of dependents	-0.01	-0.11
<i>Deviance</i>	855 (931)	923 (996)

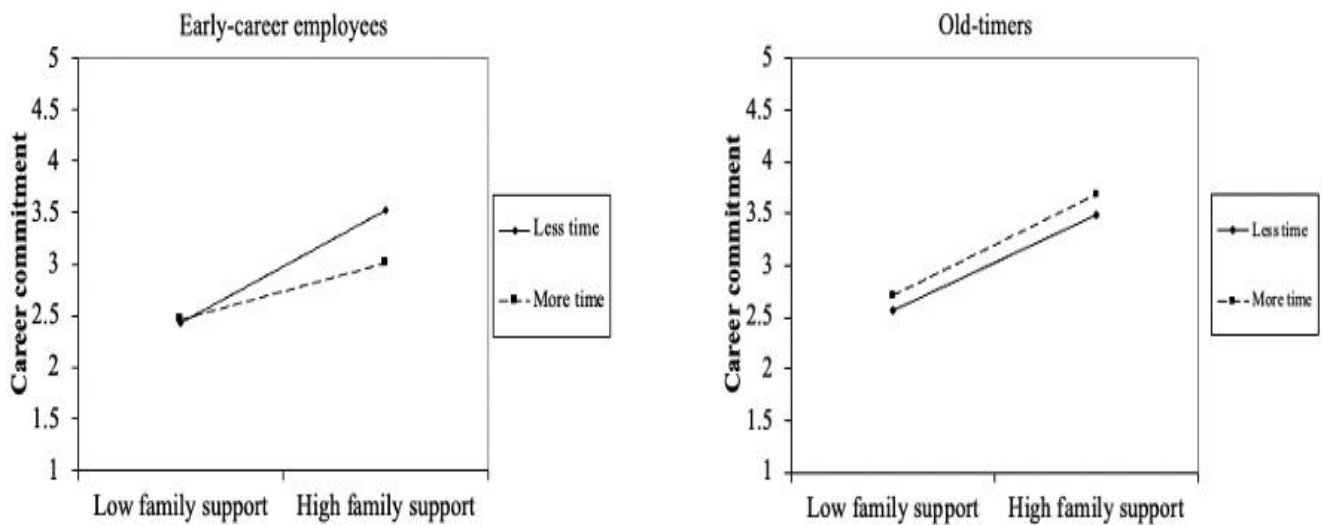
** $p < 0.01$, *** $p < 0.001$

Regarding the influence of family support on career commitment, a significant and positive relation between family support and career commitment was captured in both early-career ($b = 0.63, p < 0.001$) and old-timer samples ($b = 0.48, p < 0.001$), providing additional support for H2.

A significant interaction effect of family support with time on career commitment was observed in the early-career sample ($b = -0.18, p < 0.01$) rather than in the old-timer sample ($b = 0.02, p > 0.05$) (see Figure 11). This indicates that the effect of early-career employees' family support on their career commitment varied over time; more specifically, for early-career employees, the effect of family support on career commitment decreased over time. H6b, therefore, was supported.

Figure 11

The Time-Varying Effect of Family Support on Career Commitment



4.5.6.3 The accelerating effect of affective organisational commitment

The means and standard errors of affective organisational commitment and career commitment for both early-career and old-timer samples can be found in Table 27. Time-varying effect analysis was conducted to examine whether the effect of affective organisational commitment on career commitment may vary over time (H6c). The results are presented in Table 28. The results indicated that the time variable was a significant predictor of the growth trajectory of career commitment in both early-career employees ($b = -0.12, p < 0.05$) and old-timer samples ($b = 0.11, p < 0.001$); specifically, early-career employees' career commitment decreased over time while old-timers' increased over time, providing additional support for H5.

Table 27

Means and Standard Errors of Affective Organisational Commitment and Career Commitment (Subgroup Analysis)

Time	Early-career				Old-timer			
	Affective organisational commitment		Career commitment		Affective organisational commitment		Career commitment	
	M	S.E.	M	S.E.	M	S.E.	M	S.E.
Time 1	5.48	0.08	5.15	0.09	5.76	0.08	5.04	0.09
Time 2	5.47	0.11	4.98	0.13	5.70	0.08	5.13	0.10
Time 3	5.41	0.11	4.89	0.14	5.74	0.07	5.28	0.10

Table 28

HLM Results of the Time-Varying Effect of Affective Organisational Commitment on Career Commitment

	Early-career	Old-timer
Intercept	5.33***	4.88***
<u>Level 1</u>		
Time (A)	-0.12*	0.11***
Affective organisational commitment (B)	0.62***	0.64***
A x B	-0.01	0.11**
<u>Level 2</u>		
Age	0.01	0.01
Gender	-0.24	-0.13
Marital status	-0.07	0.27
Number of dependents	0.01	-0.06
Deviance	827 (931)	851 (996)

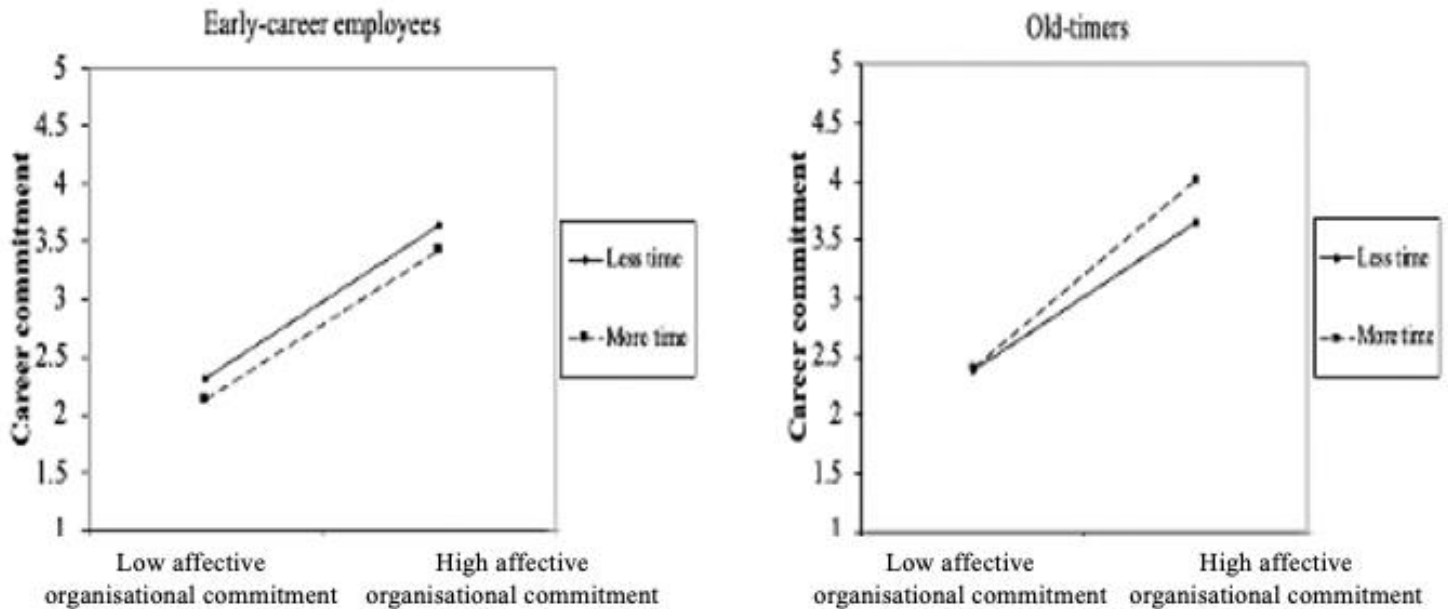
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Regarding the influence of affective organisational commitment on career commitment, a significant and positive relation between affective organisational commitment and career commitment was captured in both early-career ($b = 0.62, p < 0.001$) and old-timer samples ($b = 0.64, p < 0.001$), providing additional support for H3.

A significant interaction effect of affective organisational commitment with time on career commitment was observed in the old-timer sample ($b = 0.11, p < 0.01$) rather than in the early-career sample ($b = -0.01, p > 0.05$) (see Figure 12). This indicates that the effect of old-timers' affective organisational commitment on their career commitment varied over time; more specifically, for old-timers, the effect of affective organisational commitment on career commitment increased over time. H6c, therefore, was supported.

Figure 12

The Time-Varying Effect of Affective Organisational Commitment on Career Commitment



4.5.7 Summary of key findings

Based on multilevel modelling, latent change score modelling, latent growth modelling and time-varying effect analysis, three-wave longitudinal data gathered from 310 hospitality employees was analysed. A total of 12 hypotheses were supported, addressing three research questions of the present work. Table 29 provides a summary of research hypotheses corresponding to each research question.

Table 29*Summary of Key Findings*

Research questions	Hypotheses	Results	Notes
RQ1			
1(a) To what extent can occupational self-efficacy and family support be used to predict career commitment?	H1 Accepted	○ Occupational self-efficacy was positively related to career commitment at both the within- ($b = 0.34, p < 0.001$) and between-person ($b = 0.55, p < 0.001$) levels.	See Tables 16-17
	H2 Accepted	○ Family support was positively related to career commitment at both the within- ($b = 0.31, p < 0.001$) and between-person ($b = 0.70, p < 0.001$) levels.	
1 (b) How do these antecedents affect career commitment?	H3 (a) Accepted	○ Affective organisational commitment mediated the relation between occupational self-efficacy and career commitment at both the within- ($b = 0.38, p < 0.001$) and between-person ($b = 0.56, p < 0.001$) levels.	See Figure 5
	H3 (b) Accepted	○ Affective organisational commitment mediated the relation between family career support and career commitment at both the within- ($b = 0.38, p < 0.001$) and between-person ($b = 0.45, p < 0.001$) levels.	See Figure 6
RQ2			
2 (a) To what extent can career commitment be used to predict wellbeing?	H4 (a) Accepted	○ Career commitment ($b = 0.93, p < 0.001$) was positively related to wellbeing.	See Figure 7
2 (b) What role does change in career commitment play in subsequent change in wellbeing?	H4 (b) Accepted	○ Change in career commitment ($b = 0.22, p < 0.05$) was positively related to change in wellbeing such that an increase (decline) in career commitment predicted a subsequent increase (decline) in wellbeing.	See Figure 7
RQ.3			
3 (a) How does career commitment develop over time?	H5 (a) Accepted	○ Early-career employees ($5.16, p < 0.001$) displayed higher levels of career commitment at the initial stage than old-timers ($5.05, p < 0.001$).	See Figures 8-9
	H5 (b) Accepted	○ A decreasing trajectory of change occurred in early-career employees' career commitment ($b = -0.19, p < 0.001$).	
	H5 (c) Accepted	○ For old-timers (employees with relatively longer career tenure), an increasing trajectory of change occurred in their career commitment ($b = 0.12, p < 0.001$).	
3 (b) Do the predictive effects of the antecedents on career commitment vary over time?	H6 (a) Accepted	○ For old-timers, the positive effect of occupational self-efficacy on career commitment increased over time ($b = 0.11, p < 0.05$)	See Figures 10-12
	H6 (b) Accepted	○ For early-career employees, the positive effect of family support on career commitment decreased over time ($b = -0.18, p < 0.01$)	
	H6 (c) Accepted	○ For old-timers, the positive effect of affective organisational commitment on career commitment increased over time ($b = 0.11, p < 0.01$)	

5. Discussion

5.1 Chapter preview

This final chapter concludes the doctoral thesis by explicating its important contributions to career commitment literature as well as implications and suggestions for hospitality practitioners corresponding to the research questions. In addition, it covers an acknowledgement of the research limitations along with detailed directions for future research on this topic. Some concluding remarks are made at the end.

5.2 Research and theoretical implications

By thoroughly addressing the research questions, the current work offers a number of contributions to the career commitment literature. The thesis advances our knowledge of the influence of psychological characteristics and family factors on career commitment at both the between- and within-person levels utilising multilevel modelling (RQ1a). From a between-person perspective, the findings confirm the generalisability of the results of previous cross-sectional research to the hospitality setting regarding the positive relations of career commitment with occupational self-efficacy (e.g., Park & Jung, 2015) and family support (e.g., Azim & Islam, 2018). These existing works fall short of scrutinising within-person change in the variables as time passes and longitudinal relations between variables (Rauthmann, 2021). Unlike these studies conducted at a single point of time, by investigating the antecedents and career commitment as time-varying covariates, the present study sheds light on the within-subject processes in which occupational self-efficacy and family support vary within individuals over time and such fluctuations have influence on the development of their career commitment. Taken together, the multilevel design offers a holistic, solid and enhanced understanding of cause-and-effect relationships between the antecedents and hospitality employees' career commitment and answers calls Storme et al., (2020) made to take both inter-individual differences and intra-individual change into consideration in vocational psychology.

This study also extends current knowledge by examining both the antecedents and the explanatory mechanism for their relations with career commitment (RQ1b). By exhibiting the mediating role of affective organisational commitment, it lends support to signalling theory (Goffman, 1959) and previous studies (e.g., Liu et al., 2020; Song & Chon, 2012)

using job attitudes as a proxy to predict vocational outcomes. This PhD research is the first study to explore the mediating role of affective organisational commitment in the associations of career commitment with its antecedents at both the between- and within-person levels. Since mediation analysis is used to claim causality that reflects change within a person (MacKinnon & Pirlott, 2015), combining between-person results with longitudinal evidence (i.e., within-person variance) is more convincing (Jose, 2016). The assessment of the indirect influence of fluctuations in occupational self-efficacy and family support on fluctuations in career commitment through fluctuations in affective organisational commitment contributes to a robust understanding of the dynamic and causal processes underlying the association between the antecedents and career commitment.

The study also generates fresh insight into what is influenced by employees' career commitment (RQ2a, b). To date extant studies have captured the impact of career commitment on organisational outcomes (e.g., job withdrawal intention, Park and Jung 2015; organisational citizenship behaviour, Afsar et al., 2018) and vocational attitudes (e.g., career success, Van der Heijden et al., 2022). This research is among the first to reveal that career commitment also influences life attitudes. In comparison with preceding between-person studies that tested the concurrent relation between career commitment and wellbeing (e.g., Cho & Lee, 2017), drawing on Chen et al.'s (2011) research model and prospect theory (Kahneman & Tversky, 1979), this study is the first to present the dynamic influence of career commitment on wellbeing. The findings suggest that within-person change in career commitment has unique influence on subsequent wellbeing change, above and beyond the static level of career commitment. As such, this research implies that if investigators only take the static/average career commitment into account, they may fail to get a comprehensive understanding of its longitudinal influence, particularly regarding respondents whose initial career commitment is high (low) but undergo a decrease (increase) in career commitment. In summary, the findings highlight the value of examining within-person variance and respond to the call from Haenggli et al. (2021) to pay more attention to the dynamic relations among constructs in career development research.

Though career has often been viewed as a temporal construct, little is known about whether career commitment changes over time and how it unfolds because of a paucity

of longitudinal research. This research is the first study to empirically explore the trajectory of career commitment based on a six-month, three-wave sample, demonstrating that career commitment indeed changes over time and emphasising the importance and necessity of adopting longitudinal design when examining such a construct (RQ3a). By being theoretically rigorous, this study conducted subgroup analysis guided by Boswell et al.'s (2009) honeymoon-hangover effect theory and captured different developmental trajectories for early-career employees and old-timers. The constructive replication of Boswell et al. (2009) based on latent growth modelling not only confirms its validity, but also supports its applicability in vocational research. Future studies on other career-related constructs (e.g., career adaptability and career engagement) can adopt such development patterns when designing research methods and interpreting results.

Besides, this work is the first endeavour to explore how the antecedents and time can jointly influence career commitment, complementing existing works (Klassen et al., 2013; Okurame, 2012) that have largely utilised gender and culture as latent moderators when examining boundary conditions (RQ3b). Particularly, it challenges an implicit empirical proposition held by most previous cross-sectional studies that the magnitude of the relation between the antecedents and career commitment is constant. The findings of the current paper are critical and novel in that with the longitudinal design, this research not only demonstrates that occupational self-efficacy, family support and affective organisational commitment have influence on career commitment over time, but the strength of the effects also may vary as time passes (moderated by time). It is acknowledged that the moderating role of time-related constructs (e.g., tenure and age) has drawn attention in hospitality research (Gkorezis et al., 2011; Kim et al., 2019), yet most them to some extent lack reliability without the support of longitudinal data. This study suggests a possible way to conduct a more nuanced assessment of the moderating role of time through the use of repeated measurements and time-varying effect analysis and offers clear guidance.

As one of very few works to investigate career commitment based on multi-wave data, this study sets up a methodological example for future hospitality studies aiming to use longitudinal design on this relevant topic. For instance, this study highlights the importance of appropriately using multilevel modelling in order to take full advantage of the longitudinal data. While either the group-mean centering or grand-mean centering

strategy is accepted for time-varying (Level 1) variables (see Zhang et al., 2009), the present study empirically reveals that group-mean centering should be given priority since it makes it methodologically possible to eliminate between-person variance/confounds in the time-varying variable at level 1. Such between-variance, calculated by the group-mean centering method can also be added back to the model at level 2 and concomitantly examined with within-person variance (at level 1), generating a comprehensive understanding of the predictive power of the variable.

The use of latent change score modelling provides an alternative solution to studying time-lagged dynamics. This approach extends extant time-lagged research in the hospitality literature that predominantly adopts cross-lagged panel modelling and which has insufficient power to scrutinise individual differences in change (see Quinn et al., 2015). Researchers can benefit from adopting latent change score modelling when their research interest is investigating within-person change and generating strong causal inferences between constructs.

The methodological design of this study also answers the call from Singer and Willet (2003) and Lee et al. (2016) to treat time more flexibly in longitudinal research. With the support of solid psychological theory (e.g., honeymoon and hangover theory, Boswell et al., 2009; human capital theory, Becker, 1994) and based on advanced longitudinal analysis techniques (e.g., latent growth modelling and time-varying effect analysis), this study broadens our view to consider time as a predictor or a moderator rather than solely as a control variable. Doing so permits us to observe the developmental trajectory of time-varying variables as well as the change in the magnitude of effect sizes.

The meta-analysis of current research contributes to the literature in several ways. In contrast to Lee et al. (2000), the current review includes additional empirical works on career commitment published between 1999 and 2019, providing the literature with an updated and wide-ranging “big picture” regarding the antecedents of career commitment. Compared to previous individual studies and qualitative reviews (e.g., Jones et al., 2006), this meta-analytic review presents more robust and generalisable results regarding the strength and direction of the associations between the latent predictors and career commitment, which could be of value to researchers wishing to establish solid theoretical frameworks for career commitment. Researchers may want to employ the relatively

stronger predictors with proven validity in forecasting career commitment. The systematic review also demonstrates the current state of career commitment works regarding their publication year, sample characteristics, research context, research design, measurement scales and to what extent the moderators and mediators have been investigated. Taken together, the results provide a reference point and point to avenues for future empirical research.

5.3 Practical implications

The findings also have implications for practice. Drawing on social cognitive theory (Bandura, 1986), it is observed that hospitality employees' career commitment is positively affected by their occupational self-efficacy (RQ1a). This finding helps human resource practitioners extend the approaches they use to evaluate employee commitment of which occupational self-efficacy can serve as an indicator. Particularly, when choosing job applicants, low occupational self-efficacy is recommended to be an exclusion criteria as such employees may have low confidence and motivation to perform their job to a high standard (Niu, 2010; Yu et al., 2020) but may increase costs (e.g., hiring costs, training costs) related to turnover issues. Comparatively, managers should invest more (e.g., learning and promotion opportunities) in high-efficacious employees and create a platform for them to pursue career dreams.

The observed within-person fluctuations in occupational self-efficacy exhibit that it is malleable. Methods to develop occupational self-efficacy thus require adequate attention from management. Specifically, first, tasks assigned to employees should be clearly defined and explained in detail to enhance the likelihood of task accomplishment. This is important as successful experience can improve employees' expectancy judgments about their ability to handle similar tasks in the future (see social cognitive theory, Bandura, 1986). In order to protect employees' self-efficacy, an error-tolerant work environment should be established to encourage them to try challenging tasks, develop more ambitious career goals and in turn be more committed to their career choice.

The findings of the current work provide evidence that family support has beneficial impact on career commitment (RQ1a). Hospitality employees need to be made aware of the importance of family support to their career development. Proactively and openly pouring out true thoughts and work experiences (e.g., feelings of stressful work events)

to family members through regular communication is advocated to release pressure and enhance resilience (Tuan, 2021). In doing so, family members can also have an accurate understanding of the type of assistance (emotional or instrumental support) the worker desires and provide effective support accordingly.

From an organisational perspective, with the aim of helping employees obtain more understanding and support from family, managers need to come up with policies that bring employees and their families closer. Common family-friendly practices include but are not limited to flexible work arrangements, access to subsidised childcare services and paid parental leave (Remery & Schippers, 2019). A two-way communication channel should be built to ensure the effectiveness of these strategies. Besides, celebrating employee achievements in front of their families and hosting corporate family parties are also highly recommended. Such social events not only create an opportunity to acknowledge the sacrifices of family in supporting employees' work but can also enable family members to understand more about hospitality work, especially the difficulties associated with hospitality occupations (Naveed et al., 2021).

The findings also exhibit the significant influence of the antecedents on career commitment via affective organisational commitment (RQ1b). The powerful mediating effect of affective organisational commitment implies that one may develop more willingness to stay in one's occupational field as one sees oneself building more emotional bonds with the organisation. Affective organisational commitment thus should be considered a vital proxy and prerequisite for career commitment. In order to retain talents from a long-term view, apart from paying attention to occupational self-efficacy and family support, practitioners may need to apply diverse HRM interventions that can boost employees' affection and commitment toward the employer.

Management is encouraged to transform the HRM system from a "control" mode to a "people-oriented" mode to make sure that employees feel that they are perceived by the company as assets instead of expenses, enhancing identification with the organisation (Francis & Baum, 2018; Rossidis et al., 2021). According to social exchange theory (Homans, 1961), in order to sustain employees' psychological contract with the organisation, it is crucial to comprehend and satisfy their needs. Conducting anonymous surveys and having informal interviews with subordinates in off-work gatherings helps to

capture workers' true needs and shows personalised care for them, thereby formulating a feeling of empathy and commitment between two parties (Zheng et al., 2022).

In light of the findings that career commitment is positively associated with wellbeing (RQ2a), career counsellors can help their clients broaden their knowledge of the importance of developing attachment to their chosen careers. Hospitality firms seeking to have a happier workforce, should discover methods to improve employees' career prospects. Possible interventions have been discussed based on the findings of the present study regarding the antecedents of hospitality employees' career commitment. The results of the latent change score modelling go beyond stressing the beneficial impact of career commitment, revealing that while individuals may exhibit similar commitment at a certain time point, their subsequent life attitudes can be different depending on how their commitment trajectories have developed (e.g., upward or downward) (RQ2b). It is recommended when investigating employees' vocational attitudes (e.g., job satisfaction, career satisfaction), organisations are encouraged to utilise multi-wave survey to take trends in these attitudes into account in order to get a more precise understanding of their outcomes.

The observed hangover effect in early-career employees' career commitment needs special attention (RQ3a). According to honeymoon-hangover theory (Boswell et al., 2005), a drop in commitment is a signal that there is an incongruence between newcomers' vocational expectations and the reality of hospitality careers. In order to make the hospitality workforce sustainable, both educators and practitioners shoulder the responsibility to reduce such hangover effect.

From an educational perspective, institutions must help students to have realistic knowledge of the industry's conditions and in turn shape sensible employment expectations. Apart from internships, institutions need to add more experiential learning to the curriculum and provide more chance for students to interact with industry professionals (e.g., inviting guest speakers and organising networking events) (Brown et al., 2015).

From an employer's perspective, organisations should offer early-career employees adequate information about the nature of a hospitality job rather than overstating its positive side. Managers may want to proactively inform employees of latent change in

career attitudes in the early-career stage and offer career planning assistance and skill development programmes to underline the possibilities for professional advancement associated with the increase of tenure. Building mentorships between early-career employees and old-timers who are experiencing an upward career commitment trajectory may be another strategy that fosters positive change in newcomers' career development (e.g., better career adaptability) (Kim, 2022).

Longitudinal data also shows that the predictive power of the antecedents varies across time (RQ3b). Practically, this implies that the importance of an antecedent may increase or drop if the weight an employee places on it changes. Understanding how such weight changes over time would help practitioners implement the right HR interventions for the right person at the right time. For example, the accelerating effects of affective organisational commitment and occupational self-efficacy exhibit that their importance to old-timers increases over time. Accordingly, managers are encouraged to provide old-timers with more empowerment over time to make them feel valued and grow their confidence (Lee et al., 2016), thereby boosting their psychological ownership toward the organisation and commitment to the career.

Besides, it is found that family support is important to early-career employees' career commitment, but the importance diminishes as time passes. This to some extent reflects that the shorter the industry tenure the more family conflicts early-career employees tend to experience perhaps because of lack of autonomy and flexibility in work (Reichl et al., 2014). While long and irregular working hours are inevitable for most hospitality jobs, organisations have to give entrants enough and flexible time to spend with their family to assist them in obtaining more understanding and support from family members which are important for them to stay in hospitality in the long-term. Taken together, the results of time-varying analysis urge managers to avoid using "one size fits all" HR strategies but take time-related factors into account when tailoring their retention strategies according to the needs of employees with different ages, organisational tenure and industry experience.

5.4 Limitations and recommendations for future research

As with all research, the current study has some limitations, which provide avenues for future work. While the non-probability sampling strategies (i.e., convenience sampling

and purposive sampling) enabled the researcher to conveniently get access to potential respondents, it also raises concern about sampling bias. For example, all samples were drawn from hospitality establishments in China and employees working in lodging and F&B accounted for about 90% of the total sample. The results thus have to be interpreted with caution.

There has been growing interest in the impact of employees' cultural background on their work commitment (e.g., Jehanzeb & Mohanty, 2019; Wang et al., 2021). Indeed, it is possible that the relationships between the antecedents and work commitment can be moderated by culture. Compared to Eastern employees, Western employees influenced by low power distance culture tend to have more sense of security to try challenging tasks beyond what they are asked to handle and feel more comfortable communicating with management about their career goals (see Hofstede, 2011). In this case, self-efficacious employees not only hold a "can do" attitude, but also may seize more career development opportunities. The beneficial effect of occupational self-efficacy on career commitment thus is expected to be stronger in the context of low power distance. Future studies are required to test the research model and enhance its contextual reliability on samples from other geographic areas or different hospitality sectors (e.g., events and recreation sectors).

The results of this longitudinal study might also be influenced by the sample size and attrition bias. As Iacobucci (2010) points out, a limited sample size (less than 500) not only poses the risk of inadequate representation of the target population, but also inhibits the research model's capability to fully capture complexity of relations among constructs, resulting in less precise estimates of model parameters. This could partly explain why some of the CFI and TLI values (e.g., 0.89, 0.88) were slightly below the threshold of 0.90, despite the overall acceptable model fit achieved for the T1-3 models. Additionally, regarding attrition bias, it is a special type of sample-related bias. Though the attrition rate of the present study was acceptable (see Kristman et al., 2005), researchers (e.g., Winefield et al., 1991; Jelcic et al., 2010) have long found that in longitudinal studies, respondents who are unsatisfied with their work are more likely to stop participating after the baseline survey. Thus, it is possible that respondents undergoing a sharper decline in career commitment left before finishing all the follow-up surveys, diminishing the representativeness of the findings. Further studies are needed to reduce attrition for

example by personalising survey invitations, using shorter questionnaires or offering more incentives.

The measurement model test and CFA analysis show that the variables in this study have high reliability and validity. However, given that all the constructs were assessed using self-reported measures, the findings might be exposed to the risk of common method bias. For instance, existing evidence (e.g., Donaldson & Grant-Vallone, 2002; Khalid & Ali, 2005) has shown that because of the tendency to provide organisationally desirable responses, favourable work-related attitudes rated by employees themselves are significantly higher than ratings by supervisors. As such, the positive effects of the antecedents on career commitment might be overvalued. To further validate the predictive power of the antecedents, future studies may want to gather data from various sources (e.g., from colleagues or supervisors).

In addition, under constraints of limited time, the present study utilised a three-wave longitudinal design and was unable to test if the developmental trajectory of career commitment could be portrayed in a non-linear fashion. Several existing studies (e.g., Son & Ok, 2019; Wang et al., 2017) have found that during the later period of hangover, the deterioration rate of newcomers' work satisfaction will gradually become slower. Technically, the adoption of a time series approach with more than three survey waves and over a longer timeframe may help future researchers to scrutinise such curvilinear change in career commitment. Such a research design will also allow the use of alternative methods for conducting time-varying effect analysis with stronger statistical power, such as Cox's (1972) survival regression method and Hastie and Tibshirani's (1993) Time-varying effect model (TVEM).

In order to reduce respondent fatigue, only questions closely related to the variables of interest were asked. Future research is required to extend the research framework by integrating other antecedents of career commitment. For example, a within-person examination of the negative determinants (e.g., role ambiguity, customer mistreatment and emotional exhaustion) would shed more light on the triggers for negative change in hospitality employees' career commitment. Given the nesting of employees within teams or companies, another possible area for future longitudinal research would be to adopt a three-level design to examine the influence of supervisory- (e.g., leaders' empowering

behaviour), group- (e.g., team cohesion) or organisational-level attributes (e.g., organisational career-advancement support) on hospitality employees' career commitment. There is also an opportunity to examine the mechanisms underlying the relation between career commitment and wellbeing or the behavioural outcomes (e.g., service performance). Future researchers are encouraged to fill these gaps by taking advantage of latent change score modelling.

Finally, several limitations of the meta-analytic review of the present work should also be acknowledged. While the review obtained a sample of over 150 individual studies, the validity of the results may still be constrained by the sample size. Hunter and Schmidt (2004) argue that if a pooled estimate is calculated based on a sample size of less than 10, this can be called a small meta-analysis, and the results must be interpreted cautiously. This could be used to explain why some antecedents ($K < 10$) had significant Q-statistics, meaning that the accuracy of between-study variance may be affected by second-order sampling error. In addition, due to growing concern about this topic, there are potentially as yet unpublished studies, as well as research overlooked during data collection, despite the systematic and rigorous study selection process. Future meta-analytic work with broader samples may help to address the above flaws. In addition, although the antecedents in the review were categorised with reference to prior research and career motivation theory (London, 1983), it should be noted that there might be alternative views on how these factors can be classified. This study calls for more research (e.g., qualitative review) aimed at systematically exploring and classifying the antecedents of career commitment.

5.5 Conclusion

Labour shortages and the high turnover rate seem like a curse for the hospitality industry, and a body of research has explored the stories behind job/career change, yet empirical studies on the factors motivating hospitality employees to be committed to their vocation and the importance of such commitment are scant. This doctoral research focusing on career commitment offers insights into how to foster a sustainable hospitality workforce and proactively prevent turnover.

Regarding the antecedents of career commitment, this study extends preceding works concentrating on job or organisational factors by providing the first longitudinal evidence

for the predictive roles of occupational self-efficacy and family support. Utilising mediation analysis, this research also uncovers the psychological mechanism (i.e., mediating role of affective organisational commitment) that can explain the causal relations between the antecedents and career commitment. These findings can serve as guidelines to help hospitality businesses refine their recruitment and retention strategies and may encourage practitioners to think more about career longevity, namely, retaining talents from a long-term perspective.

The examination of the impact of career commitment on wellbeing using latent change score modelling better clarifies the cause-and-effect relation between the two constructs. These findings help to offer hospitality employees and students a better understanding of the importance of career commitment to assist them in making a conscious career plan. Moreover, based on latent growth modelling and time-varying effect analysis, this paper also explores the temporal nature of career commitment and highlights its different growth trajectories for employees at different career stages as well as change in the strength of the antecedents over time. Managers are thus recommended to review their HR policies regularly as workers' vocational needs may vary across time and individuals. Detailed practical guidance is given in light of the findings.

The present study is a valuable starting point for longitudinally understanding hospitality employees' career commitment. The work calls for more research aimed at scrutinising its developmental trajectories and causal/dynamic relations with other antecedents and outcomes using multilevel and multi-wave design. While this PhD research cannot address all the retention issues, the researcher hopes that the findings will attract the attention of practitioners and educators to hospitality employees' career development. Something that is clearly of great importance to the long-term survival and growth of the industry.

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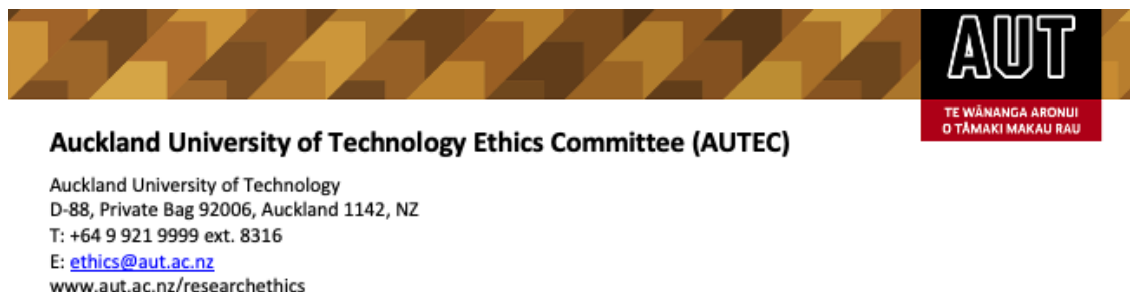
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Appendices

Appendix A: Ethics approval



31 March 2021

BeomCheol (Peter) Kim

Faculty of Culture and Society

Dear Peter

Ethics Application:2 21/70 **A longitudinal examination of hospitality employees' career commitment**

We advise you that a subcommittee of the Auckland University of Technology Ethics Committee (AUTEC) has **approved** your ethics application.

This approval is for three years, expiring 30 March 2024.

Non-Standard Conditions of Approval

1. The Information Sheet immediately before the survey can now be removed as participants will have received this information and consented beforehand.

Note: leaving the survey url open for more than three days may increase participation in each round of the survey.

Non-standard conditions must be completed before commencing your study. Non-standard conditions do not need to be submitted to or reviewed by AUTEC before commencing your study.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.

6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEK Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.

AUTEK grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through <http://www.aut.ac.nz/research/researchethics>

(This is a computer-generated letter for which no signature is required)

The AUTEK Secretariat

Auckland University of Technology Ethics Committee

Cc: dan.zhu@autuni.ac.nz; Simon Milne

Appendix B: Research tools

Appendix B.a. Questionnaire



Section A

1. Are you currently working in a hospitality organisation?
2. Have you worked in the hospitality industry for more than one month?
3. Have you signed the consent form?

Section B

Please indicate the level of your agreement with each statement on the scale provided.

Section B1. Self-efficacy

For each statement below, decide which response best indicates your attitude - how much you agree or disagree with the statement.

Occupational self-efficacy		←SD SA→						
1	I can remain calm when facing difficulties in my job because I can rely on my abilities.	1	2	3	4	5	6	7
2	When I am confronted with a problem in my job, I can usually find several solutions	1	2	3	4	5	6	7
3	Whatever comes my way in my job, I can usually handle it.	1	2	3	4	5	6	7
4	My past experiences in my job have prepared me well for my occupational future.	1	2	3	4	5	6	7
5	I meet the goals that I set for myself in my job.	1	2	3	4	5	6	7
6	I feel prepared for most of the demands in my job.	1	2	3	4	5	6	7

Section B2. Family support for my career

For each statement below, decide which response best indicates your attitude - how much you agree or disagree with the statement.

Family support to my career		←SD SA→						
1	My family is willing to listen to me when I talk about my career.	1	2	3	4	5	6	7
2	My family understands how important my career is to me.	1	2	3	4	5	6	7
3	Someone in my family asks me regularly about my career progression.	1	2	3	4	5	6	7
4	When my work gets very demanding, someone in my family will take on extra household duties and/or childcare responsibilities.	1	2	3	4	5	6	7
5	If I need to work late as a result of my career role, I can count on someone in my family to take care of everything at home.	1	2	3	4	5	6	7
6	When I have career-related setbacks to overcome, my family tries to do more work around the house.	1	2	3	4	5	6	7
7	Family members adjust their schedules to meet my work needs.	1	2	3	4	5	6	7

Section B3. Organisational commitment

For each statement below, decide which response best indicates your attitude - how much you agree or disagree with the statement.

Organisational commitment		←SD SA→						
1	I really feel as if this organisation's problems are my own.	1	2	3	4	5	6	7
2	I do feel like "part of the family" at my organization.	1	2	3	4	5	6	7
3	I do feel "emotionally attached" to this organization.	1	2	3	4	5	6	7
4	This organisation has a great deal of personal meaning for me.	1	2	3	4	5	6	7
5	I do feel a strong sense of belonging to my organization.	1	2	3	4	5	6	7

Section B4. Career commitment

For each statement below, decide which response best indicates your attitude - how much you agree or disagree with the statement.

Career commitment		←SD SA→						
1	If I could go to a different job in an industry other than hospitality which paid the same, I would not do so.	1	2	3	4	5	6	7
2	I definitely want a career for myself in the hospitality industry.	1	2	3	4	5	6	7
3	If I could do it all over again, I would still choose to work in in the hospitality industry.	1	2	3	4	5	6	7
4	If I had all the money, I needed without working, I would probably still continue to work in the hospitality industry.	1	2	3	4	5	6	7
5	I like this vocation too well to give it up.	1	2	3	4	5	6	7
6	This is the ideal vocation for a life work.	1	2	3	4	5	6	7
7	I never feel disappointed that I ever entered the hospitality industry.	1	2	3	4	5	6	7

Section B5. Wellbeing

For each statement below, decide which response best indicates your attitude - how much you agree or disagree with the statement.

Wellbeing		←SD SA→						
1	In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2	The conditions of my life are excellent.	1	2	3	4	5	6	7
3	I am satisfied with my life.	1	2	3	4	5	6	7
4	So far I have gotten the important things I want in life.	1	2	3	4	5	6	7
5	If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Section C

Demographic questions

1. What year were you born?
2. What is your gender?
 - Male
 - Female
3. What is your relationship status? (Please choose one option)
 - Single
 - In a relationship/Married

4. How many dependents do you have? ____
5. What is your highest qualification? (Please choose one option)
- None,
 - High school graduate
 - Certificate/Diploma
 - Bachelor's degree
 - Postgraduate degree (Master's or Doctorate degree)
6. What kind of hospitality organisation is it? (Please choose one option)
- Accommodation: Hotel, Motel, Resort, Serviced apartment
 - Foodservice: Casual dining restaurant, Fine dining restaurant, Café, Bar, Nightclub
 - Travel and Entertainment: Travel agent, Leisure centre, Event company
 - Other: ____
7. What is your current job title? (Please choose one option).
- Entry-level employees
 - Supervisors/Managers
 - Senior Managers/ Directors
8. How long have you worked for your current employer? ____Months (For example, 1 year and 2 months = 14 months, please fill in the blank with digital numbers only)
9. How long have you worked in the hospitality industry? ____Months (For example, 1 year and 2 months = 14 months, please fill in the blank with digital numbers only)
10. Which of these describes your personal income last year?
- Less than ¥30,000
 - ¥30, 000 to ¥39, 999
 - ¥40, 000 to ¥49, 999
 - ¥50, 000 to ¥59, 999
 - ¥60, 000 or more
11. As we are doing a longitudinal study, we may need to match your response across time. Please provide the last four digits of your mobile phone number (please fill in the blank with digital numbers only). _____

Appendix B.b. Participation Information Sheet



Date Information Sheet Produced:

31 March 2021

Project Title

A longitudinal examination of hospitality employees' career commitment

An Invitation

My name is Dan Zhu. I am a PhD. Candidate at AUT University. I am writing to you to invite you to participate in this study of career commitment in the hospitality industry. Whether or not you take part in this study is your choice. If you don't want to take part, you don't have to give a reason, and you have the right to stop your participation in this study at any time.

What is the purpose of this research?

The primary purpose of this research project is to contribute to the understanding of hospitality employees' career commitment. This research aims to develop a comprehensive theoretical model for understanding and measuring career commitment in the hospitality industry. The establishment of a dynamic prediction model of career commitment and the examination of the causal relationships of career commitment with its outcomes seek to offer practitioners several insights into hospitality employees' career development and management. The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

With support from your management, permission to conduct my research in this establishment has been obtained. I am inviting you as a potential participant in this study because you currently work in the hospitality industry.

What will happen in this research?

This research is a longitudinal study. You will be surveyed three times, at 3-month intervals. At each time point, you will be asked to complete an online questionnaire,

and each will take about 10-15 minutes to complete (approximately one hour in total). The online questionnaires will be sent to you via WeChat.

How do I agree to participate in this research?

If you are willing to participate in this study, please fill out the attached consent form and hand it back directly to me in hard copy or soft copy via email/WeChat. My contact details can be found on the next page. Again, your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What are the discomforts and risks?

There are no anticipated discomforts and risks. Some questions may be sensitive to you, such as those about your career turnover intentions. However, I can assure you that all your response will be kept confidential and will never be exposed to your management.

How will these discomforts and risks be alleviated?

Your participation in this research is voluntary, and you have the right to stop your participation in this study at any time.

What are the benefits?

➤ For the researcher

This research is part of my Doctoral thesis. The successful completion of this study will assist me to achieve my PhD degree and progress with my career. My supervisors and I may also publish the findings of this study in a journal article or at a conference.

➤ For participants

You will be given monetary rewards (WeChat Red Packet) as compensation for your time and effort. You will receive RMB 8 yuan after you finish the baseline survey at Time 1. Next, you will receive RMB 5 yuan for each of the follow-up surveys completed. If you finish all of the surveys, you will receive an extra RMB 6 yuan. In total, you can obtain RMB 24 yuan if you complete all of the 3 surveys.

How will my privacy be protected?

Your response will remain confidential. After data collection, all your response will be coded (only coded data will then be analysed) so that no individual or organisational information will be included in our final findings. Your response will never be shared with anybody within or outside your organisation.

What are the costs of participating in this research?

There are no financial costs to you. We anticipate you will need to allocate a total of around 1 hour of your own time if you complete all surveys.

Will I receive feedback on the results of this research?

You can contact me after completing the survey, to request the findings of this study which can be sent to you via WeChat. Besides, this research will also be posted on the website of the library of Auckland University of Technology.
<https://openrepository.aut.ac.nz/>

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Prof Peter Kim, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

Dan Zhu, dan.zhu@aut.ac.nz, WeChat ID: ohwell

Project Supervisor Contact Details:

Prof Peter Kim, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Appendix B.c. Participation Information Sheet for managers



Date Information Sheet Produced:

31 March 2021

Project Title

A longitudinal examination of hospitality employees' career commitment

About me

My name is Dan Zhu, and I am a PhD. Candidate at Auckland University of Technology, undertaking research in the field of human resource management. As part of this research, I hope to survey staff of your property, along with other major hospitality establishments in Kaifeng, China.

What is the purpose of this research?

As working in the hospitality industry is often considered a negative career option, the industry is facing labour shortages. The primary purpose of this research project is to contribute to the understanding of hospitality employees' career commitment. This research aims to develop a comprehensive theoretical model for understanding and measuring career commitment in the hospitality industry.

How will staff be invited to participate?

My preference is to explain the purpose and procedure of the present study to staff using the **Participant Information Sheet** (see attached) and **Invitation Poster** (see attached) face to face and proceed to invite them to participate in the study. However, if this is too difficult, I can put up the invitation poster on your staff noticeboards or hand it out during your team meetings.

Participation in this research is voluntary and whether or not your staff choose to participate will neither advantage nor disadvantage them. They can withdraw from the study at any time.

How will the longitudinal research be undertaken?

Employees who are willing to be our respondents will be asked to sign the **Consent Form** (see attached) and hand it back directly to me in hard copy or soft copy via email/WeChat. They will be surveyed three times, at 3-month intervals. At each time point, they will be asked to complete an online questionnaire, and each will take about 10-15 minutes to complete (approximately one hour in total). The online questionnaires will be sent to them via WeChat.

What are the discomforts and risks?

There are no anticipated discomforts and risks.

What are the benefits?

This research is part of my Doctoral thesis. The successful completion of this study will help me to achieve my PhD degree and progress with my career. The establishment of a dynamic prediction model of career commitment and the examination of the causal relationships of career commitment with its outcomes seek to offer practitioners several insights into hospitality employees' career development and management. The findings of this research may be used for academic publications and presentations.

How will employees' privacy be protected?

Employees' response will remain confidential. After data collection, all their response will be coded (only coded data will then be analysed) so that no individual or organisational information will be included in the final findings. Their response will never be shared with anybody within or outside the organisation.

What are the costs of participating in this research?

There are no financial costs to staff. It is anticipated that they will need to allocate a total of around 1 hour of their own time if they complete all surveys.

Will I receive feedback on the results of this research?

This research will be posted on the website of the library of Auckland University of Technology. <https://openrepository.aut.ac.nz/>

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Prof Peter Kim, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTECH, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

Dan Zhu, dan.zhu@autuni.ac.nz

Project Supervisor Contact Details:

Prof Peter Kim, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Appendix B.d. Consent form



Project title: A longitudinal examination of hospitality employees' career commitment

Project Supervisor: Prof. Peter Kim

Researcher: Dan Zhu

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 31 March 2021.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I consent to the researcher contacting me via WeChat.
- ☐ I understand that the present research is a longitudinal study that will survey me three times and that each survey will take about 10-15 minutes. However, I also understand that participating in the first-round survey will not obligate me to participate in any of the subsequent data collection.
- ☐ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ☐ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, the removal of my data may not be possible.
- ☐ I understand that my response will be kept confidential and that my name will not be used in any report.
- ☐ I agree to take part in this research.
- ☐ I wish to receive a summary of the research findings (please tick one):

Yes ☐ No ☐

Participant's signature:

Participant's name:

Participant's Contact Details (please leave your WeChat ID below):

Date:

RESEARCH PARTICIPANTS WANTED!

What is the purpose of this study?

As working in the hospitality industry is often considered a negative career option, the industry is facing labour shortages. The primary purpose of this research project is to contribute to the understanding of hospitality employees' career commitment.

What will be involved?

This research is a longitudinal study. You will be surveyed three times, at 3-month intervals. At each time point, you will be asked to fill up an online questionnaire. Each will take about 10-15 minutes to complete. The online questionnaires will be sent to you via WeChat.

Are you eligible?

- You are currently employed by a hospitality organisation.
- You have hospitality work experience of no fewer than one month.

Interested?

Please contact the researcher to see the participant information sheet and sign the consent form.

Dan Zhu, Ph.D. Candidate

WeChat: ohwell

Email: dan.zhu@autuni.ac.nz

Participation is voluntary.

You have the right to stop your participation in this study at any time.

Appendix C: Research tools (Chinese Version)

Appendix C.a. Questionnaire



第 1 环节

1. 您目前就职的企业属于餐旅行业吗??
2. 您有至少一个月的餐旅从业经验吗?
3. 您有签署知情同意书吗?

第 2 环节

请在下方选择您对每个陈述的同意或不同意的程度。

第2环节，第1小节，自我能力评估

对于下方每条陈述，请选择您对该陈述同意或不同意的程度。

自我能力评估		←不同意					同意→	
1	当在工作中遇到困难时我能冷静面对。 因为我对自己处理问题的能力有信心。	1	2	3	4	5	6	7
2	当在工作中遇到困难时， 我通常能找到多种解决办法。	1	2	3	4	5	6	7
3	无论工作中遭遇什么困难， 我通常都能应付。	1	2	3	4	5	6	7
4	我过去积累的工作经验已经为我未来职业发展奠定了基础。	1	2	3	4	5	6	7
5	我实现了我为自己目前工作所制定的目标。	1	2	3	4	5	6	7
6	我觉得自己有足够的 ability 来应对工作中的要求。	1	2	3	4	5	6	7

第2环节，第2小节，家人对职业的支持

对于下方每条陈述，请选择您对该陈述同意或不同意的程度。

家人对职业的支持		←不同意						同意→
1	我的家人愿意听我谈论自己的职业。	1	2	3	4	5	6	7
2	我的家人知道我的职业对我来说有多重要。	1	2	3	4	5	6	7
3	我家人经常问我职业发展的状况。	1	2	3	4	5	6	7
4	当我工作很忙时，家人会承担额外的家务/育儿责任。	1	2	3	4	5	6	7
5	如因我职业需要，不得不晚下班，我可指望家人照顾家里的一切。	1	2	3	4	5	6	7
6	当我处在职业困境时，家人会做更多的家务。	1	2	3	4	5	6	7
7	家人会调整他们的日程/时间安排来照顾我的工作需要。	1	2	3	4	5	6	7

第2环节，第3小节，对于单位的情感认同

对于下方每条陈述，请选择您对该陈述同意或不同意的程度。

对于单位的情感认同		←不同意						同意→
1	我真的把单位的事情当作我自己的事情来处理了。	1	2	3	4	5	6	7
2	我在单位有那种“大家庭里一分子”的感觉。	1	2	3	4	5	6	7
3	在感情上，我觉得自己就属于这个公司。	1	2	3	4	5	6	7
4	我对这家单位有很深的个人感情。	1	2	3	4	5	6	7
5	我对目前的单位有着很强的归属感。	1	2	3	4	5	6	7

第2环节，第4小节，职业忠诚度

对于下方每条陈述，请选择您对该陈述同意或不同意的程度。

职业忠诚度		←不同意						同意→
1	即使我可以在餐旅业以外的行业工作也能得到一样的报酬，我还是不会离开餐旅业。	1	2	3	4	5	6	7
2	我就是希望自己可以把餐旅业当作自己的职业。	1	2	3	4	5	6	7
3	如果我能再做一次职业选择，我仍然会选择从事餐旅业。	1	2	3	4	5	6	7
4	即使我有了足够的钱（不需要再工作），我也还会继续在餐旅业工作。	1	2	3	4	5	6	7
5	我非常喜欢餐旅业以至于无法放弃这个职业。	1	2	3	4	5	6	7
6	餐旅业可以作为我一生中的理想职业。	1	2	3	4	5	6	7
7	我从不为选择餐旅行业作为职业而感到后悔。	1	2	3	4	5	6	7

第2环节，第5小节，生活幸福感

对于下方每条陈述，请选择您对该陈述同意或不同意的程度。

生活幸福感		←不同意 同意→						
1	大致上，我现在的的生活跟我理想中的状态很接近。	1	2	3	4	5	6	7
2	我目前的生活状态很理想。	1	2	3	4	5	6	7
3	我对现在的生活感到满意。	1	2	3	4	5	6	7
4	到目前为止，我已经获得了人生中我认为重要的那些东西。	1	2	3	4	5	6	7
5	如果人生可以重来，我不会对现在的生活做大幅度的改变。	1	2	3	4	5	6	7

第3环节

基本信息

1. 您出生于那一年？
2. 您的性别是？
 - 男
 - 女
3. 您当前情感状态是？（请选择一项）
 - 单身
 - 恋爱中/已婚
4. 您总共有多少家人需赡养（父母）和抚养（孩子）？
5. 您的最高学历是？（请选择一项）
 - 高中文凭以下
 - 高中文凭
 - 中、大专文凭
 - 本科文凭
 - 研究生文凭（硕士学位或博士学位）
6. 您在哪一类餐旅行业单位工作？（请选择一项）
 - 住宿：酒店，汽车旅馆，度假村，服务式公寓
 - 餐饮服务：休闲餐厅，高级餐厅，咖啡厅，酒吧，夜总会
 - 旅行和娱乐：旅行社，休闲中心，活动策划公司

- 其他: ____
7. 您当前的职务是什么？（请选择一项）
- 普通职员
 - 主管/经理
 - 高级经理/董事
 - 100 或更多
8. 您为当前**单位**工作了多长时间？(____)个月（例：1 年 2 个月=14 个月，请用阿拉伯数字填写）
9. 您在**餐旅行业**工作了多长时间？(____)个月（例：1 年 2 个月=14 个月，请用阿拉伯数字填写）
10. 以下哪项描述了您去年的个人收入？（请选择一项）
- 少于 ¥30,000
 - ¥30, 000 to ¥39, 999
 - ¥40, 000 to ¥49, 999
 - ¥50, 000 to ¥59, 999
 - ¥60, 000 或更多
11. 本研究是追踪调查。为确保我们能追踪匹配您每一次的回答，请输入您的手机尾号后4位。（请用阿拉伯数字填写）手机号后四位(____)

Appendix C.b. Participation Information Sheet



日期:

2021 年 3 月 31 日

研究名称

一个对于酒店行业员工职业忠诚度的追踪调查

邀请

我叫朱丹，我是奥克兰理工大学的一名博士生。在此，我想邀请您参加本次关于酒店行业员工职业忠诚度的追踪调查。此次研究完全是自愿的，如果您不想参加，也无需提供理由，您有权随时停止参与此研究。

这项研究的目的是什么？

本研究项目的主要目的是促进对酒店业员工的职业忠诚度的了解。这项研究旨在建立一个覆盖面广的理论模型，以了解和衡量酒店业员工的职业忠诚度。本次研究将通过建立一个对于职业忠诚度动态预测模型，来了解它的前因和后果，旨在为从业人员提供一些有关酒店员工职业发展和管理的见解。

本次的研究结果可能会被刊载于学术出版物和学术会议上。

为什么要邀请我参加这项研究？

您被视为此次研究的潜在参与者是因为您目前在酒店业工作。在您管理层的支持下，我已获得在您单位进行我的研究的许可。

研究中将会发生什么？

这项研究是一项追踪研究。您将每隔三个月接受一次调查，共 3 次。每一次，您只需要填写一张在线问卷。每一次问卷需要花费您 10-15 分钟左右。调查问卷将会通过微信发送给您。

我如何同意参与这项研究？

如果您愿意参加本次研究，您需要填写知情同意书，当面或者通过邮件/微信的形式递交给我。我的联系方式请参见下一页。

再一次告知您，本次研究完全是自愿的。无论参加与否，都不会给您带来不利。您可以随时退出此次研究。如果您选择退出研究，那么您将可以选择删除任何和您有关的数据，或者授权我们继续使用。但是，如果这发生在数据分析之后，您可能无法删除您的数据。

本次研究会带来哪些不适和风险？

本次研究预计不会有不适和风险。有些问题可能对您会比较敏感，例如关于您的退出职业意向。但是，我可以向您保证，您的所有问卷回答都将被保密，并且永远不会透露给您的管理层。

如何避免这些不适和风险？

此研究是自愿的，您有权随时停止参与此研究。

本次研究会带来哪些好处？

➤ 对于研究者本人

这项研究是我博士论文的一部分，成功完成这项研究将有助于我获得博士学位，并推动我的职业发展。我和我的导师也将在学术期刊或会议上发布本次的研究结果。

➤ 对于受访者

您将获得经济上的奖励，以补偿您的时间和精力。在完成问卷 1 后，您将获得 8 元人民币。接下来，每完成一次后续调查，您将获得 5 元人民币。如果您积极参与了所有的调查，您还可获得额外的 6 元人民币的奖励。综上，如果您完成我们全部 3 次调查，则总共可获得人民币 24 元的收益。

我的隐私将如何受到保护？

您的回复将始终是保密的。在完成数据收集后，我们会对您的所有答复进行编译处理。只有经过了编码的数据会被用于分析，以便使最终调查结果中不包含任何与您个人或以及您单位有关的信息。您的回答将永远不会透露给您单位内部或外部的任何人。

参加这项研究我需要花费什么？

您无需花费任何经济上费用。如果您完成所有的调查，我们预计总共将占用您四十到六十分钟填写在线问卷。

我会了解到此次调查的研究结果吗？

完成问卷后，您如果对本次研究的结果感兴趣，可以以微信的方式邮件索取。

此外，这项研究也将发布在奥克兰理工大学图书馆的网站上。

<https://openrepository.aut.ac.nz/>

如果我对此研究还有疑问该怎么办？

有关于此次研究内容的问题，请联系 Peter Kim 教授，pkim@aut.ac.nz，(+649) 921 9999 ext 6105.

有关于此次研究道德伦理有关的问题，请联系奥克兰理工大学道德伦理委员会，ethics@aut.ac.nz，(+649) 921 9999 ext 6038.

我还可联络谁寻求进一步有关于此次研究的信息？

研究人员联系方式:

朱丹, dan.zhu@autuni.ac.nz，微信号: ohwell

研究项目导师联系方式:

Peter Kim 教授, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Appendix C.c. Participation Information Sheet for managers



日期:2021年3月31日

研究名称

一个对于酒店行业员工职业忠诚度的追踪调查

关于我

我叫朱丹，我是奥克兰理工大学的一名博士生。我正在开展一项和人力资源管理有关的研究。作为此项研究的一部分,我希望可以调查您企业中的员工。我们也将邀请开封市其他主要餐饮住宿机构参与我们的调查。

这项研究的目的是什么？

在酒店业工作有时会被成见化理解为是一个消极的职业选项，所以我们看到这个产业正面临着劳动力的短缺。本研究项目的主要目的是促进对酒店业员工的职业忠诚度的了解。

这项研究旨在建立一个覆盖面广的理论模型，以了解和衡量酒店业员工的职业忠诚度。

员工将怎样被邀请参与研究？

我的理想中选择是面对面的解释我的研究目的和流程给您的员工听，通过使用参与者须知书（参见附件），和邀请海报（参见附件），以此邀请他们加入我的研究。如果，这不方便的话，我可以将海报贴在您们的员工告示板上，或者在您们开团队会议的时候，分发我的海报。本次研究完全是自愿的。

此项追踪研究将如何开展？

对于那些想要加入我们研究的员工，他们需要填写知情同意书，当面或者通过邮件/微信的形式递交给我。这项研究是一项追踪研究。

他们将每隔两个月接受一次调查，共3次。每一次，他们只需要填写一张在线问

卷。每一次问卷需要花费他们10-15分钟左右。

调查问卷将会通过微信发送给他们。

本次研究会带来哪些不适和风险？

本次研究预计不会有不适和风险。

本次研究会带来哪些好处？

对于研究者本人

这项研究是我博士论文的一部分，成功完成这项研究将有助于我获得博士学位，并推动我的职业发展。我和我的导师也将在学术期刊或会议上发布本次的研究结果。

本次研究将通过建立一个对于职业忠诚度动态预测模型，来了解它的前因和后果，旨在为从业人员提供一些有关酒店员工职业发展和管理的见解。

本次的研究结果可能会被刊载于学术出版物和学术会议上。

员工的隐私将如何受到保护？

员工的回复将始终是保密的。在完成数据收集后，我们会对他们所有答复进行编译处理。只有经过了编码的数据会被用于分析，以便使最终调查结果中不包含任何与他们个人或以及您单位有关的信息。他们的回答将永远不会透露给您单位内部或外部的任何人。

参加这项研究需要花费什么？

无需花费任何费用。如果他们完成所有的调查，我们预计总共将占用他们四十到六十分钟填写在线问卷。

我会了解到此次调查的研究结果吗？

这项研究将发布在奥克兰理工大学图书馆的网站上。<https://openrepository.aut.ac.nz/>

如果我对此研究还有疑问该怎么办？

有关于此次研究内容的问题，请联系Peter Kim教授, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

有关于此次研究道德伦理有关的问题，请联系奥克兰理工大学道德伦理委员会, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

我还可联络谁寻求进一步有关于此次研究的信息？

研究人员联系方式:

朱丹, dan.zhu@autuni.ac.nz, 微信号: ohwell

研究项目导师联系方式:

Peter Kim 教授, pkim@aut.ac.nz, (+649) 921 9999 ext 6105.

Appendix C.d. Consent form



研究名称: 一个对于酒店行业员工职业忠诚度的追踪调查

研究导师: Peter Kim 教授

研究人员: 朱丹

- ☐ 我已阅读并且理解了参与者须知（2021 年 3 月 31 日版本）中提到的有关此次研究的信息。
- ☐ 我有机会提出有关此次研究的疑问，并且已经的到了解答。
- ☐ 我授权研究人员通过微信与我联络。
- ☐ 我知道这项研究是一项追踪研究。我将每隔三个月接受一次调查，共 3 次。每一次，我只需要填写一张在线问卷。每一次问卷需要花费我 10-15 分钟左右。然而，我也知道参与第一阶段问卷调查不代表我有义务必须参加其后的问卷研究。
- ☐ 我知道参与此次研究是完全自愿的（我可以自己决定），并且我可以随时退出此项研究，这将不会给我带来任何不利。
- ☐ 我知道如果我选择退出研究，那么我将可以选择删除任何和我有关的数据，或者授权研究人员继续使用。但是，如果这发生在数据分析之后，我可能无法删除我的数据
- ☐ 我知道我的问卷回答会被严格保密，我的名字不会出现在任何报告中。
- ☐ 我愿意参加此研究。
- ☐ 我想要一份关于此研究结果的总结（请选择一项）是 ☐ 是 ☐ 否

参与者签名:

参与者姓名:

参与者联络方式 (请留下您的微信号):

日期:

研究受访者招募

这项研究的目的是什么？

本研究项目的主要目的是促进对酒店业员工的职业忠诚度的了解。这项研究旨在建立一个动态预测理论模型，以了解和衡量酒店业员工的职业忠诚度，及其前因和后果。

研究中将会发生什么？

这项研究是一项追踪研究。您将每隔三个月接受一次调查，共 3 次。每一次，您只需要填写一张在线问卷。每一次问卷需要花费您 10-15 分钟左右。问卷将会通过微信发送给您。

您符合吗？

- 您目前的工作单位属于酒店业吗？
- 您有不少于一个月的酒店业的从业经验吗？

想要了解更多？

请联络研究人员获取参与者须知以及签署知情同意书。

朱丹，

WeChat: ohwell

Email:

dan.zhu@autuni.ac.nz

您可以随时退出我们的研究