Job Autonomy and Career Commitment: A Moderated Mediation Model of Job Crafting and Sense of Calling

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Abstract
This study aims to examine the mediating effect of job crafting on the relationship between job autonomy and career commitment, as well as the moderating effect sense of calling has on job crafting and career commitment. The data for this three-wave study were collected from 350 R&D engineers at 25 high-tech companies in Guangdong Province, China. The PROCESS macro for SPSS was used to analyze the proposed hypotheses. The results revealed that (a) job crafting mediates the positive relationship between job autonomy and career commitment and (b) sense of calling moderates the indirect effect of job autonomy and career commitment through job crafting, such that the indirect effect is stronger in people with higher sense of calling than those with lower sense of calling. Theoretical and practical implications of the findings are discussed.

Keywords
job autonomy, career commitment, job crafting, sense of calling

Introduction
Today’s volatile business environment brings challenges to both individuals and organizations across all industries. Globalization, advanced technology, organizational restructuring and pandemic all lead to more unstable and unpredictable workplace (Federici et al., 2019; Li et al., 2020). Both actual and potential costs from employee turnover not only impact performance but discourage workplace morale (Li et al., 2020; Lin, 2020). Therefore, it is important for both employees and organizations to recognize the importance of meaningful work for long-term employment relationships and career management (Goulet & Singh, 2002).

Career commitment has received attention when it comes to workplace issues since it influences individual attitudes and behaviors in the workplace (e.g., work engagement, job involvement, career progression, job withdrawal and turnover) (e.g., Chang, 1999; Goulet & Singh, 2002; Li et al., 2020; Lin, 2020). Career commitment represents one’s attachment to one’s vocation or profession (Blau, 1985). Employees who are committed to their career have spent much effort to managing negative aspects of pursuing their career goals (Aryee & Tan, 1992). Previous studies show both personal (e.g., calling; Afsar et al., 2019) and situational (e.g., supervisor-subordinate relationship; Blau, 1985) variables act as determinants of career commitment. Given the importance of personal and organizational factors in affecting employee attitudes and behavior, it is vital to examine how to stimulate employee career commitment (Aryee & Tan, 1992). Previous research indicates the strong relationship between employee work-related perceptions, behaviors, and career commitment when the opportunities offered by their organizations (e.g., organizational practices) satisfy their needs to reach their goals (e.g., Aryee & Tan, 1992; Chang, 1999). Job autonomy represents a sense of discretion and responsibility to decide how and when to do the work that allows employees to achieve a greater fit between their own preferences and the workplace (Tims et al., 2012; Wrzesniewski & Dutton, 2001). Supported by organizational job design, job autonomy encourages employees to actively manage their working conditions, helping them to build career commitment and attain career goals (Goulet & Singh, 2002). In addition, employees working in high autonomy situations may have the chance to integrate multiple tasks into their roles through crafting their jobs. Job crafting, as employees’ self-initiated physical and cognitive changes aimed at their tasks and relationships, may be stimulated by job autonomy to improve work processes and increase work motivation (Goulet & Singh, 2002; Wrzesniewski & Dutton, 2001). Employees involved in job-crafting activities...
may actively align their working environments to their needs, preferences, and abilities. Such proactive behaviors make employees more dedicated to their career path that makes them committed to job design (i.e., job autonomy) (Bakker & Demerouti, 2014; Dubbelt et al., 2019). Therefore, we included job crafting as a mediator to explore the relationship between job autonomy and career commitment.

In addition to workplace features (e.g., job autonomy), which allow desired freedom for employees to arrange their schedules, it is also important to examine how to motivate employee career commitment with individual characteristics, such as a sense of calling. Calling is a mindset that people adopt to make sense of their engagement with their work and may have different impacts on their perceptions and behaviors (e.g., Dik & Duffy, 2015; Hirschi, 2012; Li et al., 2020). As the internal source, calling brings individuals the competence and confidence to fulfill career goals. Employees who revise their work identity and meaning through job crafting may change their attitudes toward their career. As such, this study proposes that if employees have high calling, the relationship between job crafting and career commitment will be strengthened. The career they pursue becomes more meaningful with high calling.

Taken together, this study contributes to the career literature in the following ways. First, we investigate the relationship between job autonomy and employee career commitment. By examining the impact of job autonomy on career commitment, this study not only enriches the job design and career literature but brings new directions for both fields, which developed separately from each other (Federici et al., 2019; Li et al., 2020). Second, we include job crafting as a mediating mechanism between job autonomy and career commitment. This research explores how job design integrates into proactive behavior (i.e., job crafting) that further develops career commitment. Employees whose job matches their overall career path are likely to be valued and identified that increase willingness to maintain their employment (Goulet & Singh, 2002; Lee, 2016). Third, this study investigates the personal factor (i.e., a sense of calling) that brings meaningful passion toward a career with the relationship between job crafting and career commitment. Individuals with higher sense of calling consider their career as more meaningful to themselves and as more influential to other communities. Calling may motivate individuals to develop competence to change the current job to a path leading to more career commitment (Dik & Duffy, 2015; Dobrow & Tosti-Kharas, 2011). Furthermore, the research takes both job autonomy (i.e., situational features) and a sense of calling (i.e., individual features) to explore how individuals translate resources to actively adjust their job (i.e., job crafting) to fit their preferences, needs, and abilities to maintain greater career commitment (Goulet & Singh, 2002). By examining the conditional effect of calling on the mediated effect of job autonomy and career commitment, the study highlights the function of calling in bringing practical implications to the field of career management.

In addition, this study expands the career commitment literature to the high-tech industry in non-Western (i.e., Chinese) context. The rationale of choosing high-tech industry professionals is because these professionals have talents that are not easily imitated or replaced which take more effort for organizations to retain (Lin, 2020). Working in high-tech industries is extremely stressful and work overload brings the likelihood of high turnover (Lin, 2020). Thus, it is important to investigate the impact of workplace features (e.g., job autonomy) and personal characteristics (i.e., a sense of calling) to encourage individuals to maintain their career commitment in their extremely competitive work context (Afsar et al., 2019). Figure 1 demonstrates the hypothesized theoretical model of the current study.

**Theoretical Background**

**Job Autonomy and Career Commitment**

Previous research suggested that organizations may develop a more stable workforce by strengthening employee career commitment (e.g., Blau, 1988; Goulet & Singh, 2002). Apart from organizational commitment focusing on the relationship between an employee and their organization, career commitment is defined as the extent to which an individual values and identifies with the profession or vocation or has
individual motivation to engage in his or her chosen job (Blau, 1988; Goulet & Singh, 2002). Individuals with greater career commitment are willing to dedicate more time and make effort on personal growth and the pursuit of career goals (Aryee & Tan, 1992; Blau, 1988; Goulet & Singh, 2002).

Individual attitudes and behaviors are affected by working contexts. Comparisons are made between expected outcomes with what employees actually find in the workplace; once expected preferences and needs have been satisfied, career commitment increases (Chang, 1999). As one of the crucial factors from job characteristics model (JCM), job autonomy represents the extent to which the job provides individuals with freedom, independence, and discretion to schedule their work and determine which procedures to implement (Grant et al., 2011; Hackman & Oldham, 1976; Laurence et al., 2020). Job autonomy satisfies an employee’s need for autonomy by giving greater discretion and personal responsibility in conducting work and deciding the timing and sequence of activities (Hackman & Oldham, 1976). Enriching one’s job through top-down processes, job autonomy gives employees greater freedom, control, and discretion; this helps them develop a sense of mastery in pursuing their career goals (Aryee & Tan, 1992; Cai et al., 2018; Goulet & Singh, 2002; Li et al., 2020).

Drawing upon self-determination theory (SDT), individuals proactively pursue their development and growth by integrating their inner needs with social contexts (Vallerand, 2000). When their needs are satisfied (e.g., need for autonomy), individuals are self-motivated which brings preferred outcomes and improved work performance (Vallerand, 2000). Receiving discretion and freedom in daily activities decreases the constraint and excessive control and engender feelings of choice over an individual’s job (Hackman & Oldham, 1976). According to SDT, working contexts meeting an individual’s need for autonomy may be positively associated with work motivation and commitment to continue in their profession or vocation (Debus et al., 2019; Dubbelt et al., 2019; Grant & Parker, 2009; Morgeson & Humphrey, 2006). Under these circumstances, intentions to pursue and maintain a career in the organization may be strengthened. Once employees perceive that their jobs allow them to schedule and manage their tasks based on personal preferences, needs, and abilities, employees are motivated to dedicate more to their career by acquiring knowledge and improving their abilities to proactively build higher levels of commitment (Aryee & Tan, 1992; Berg et al., 2010; Goulet & Singh, 2002; Tims & Bakker, 2010). Thus, we introduce the following hypothesis:

**Hypothesis 1:** Job autonomy is positively related to employee career commitment.

### The Mediating Role of Job Crafting

Factors in the workplace, such as job characteristics, may influence individual expectations, working behavior, and related job outcomes (Dierdorff & Jensen, 2018; Grant & Parker, 2009). Previous research proposed that job autonomy allows individuals to flexibly schedule their work, make decisions, and select methods used to perform tasks to satisfy their needs (Hackman & Oldham, 1976; Li et al., 2020). It has been found that job autonomy is positively related to positive and proactive workplace behavior, such as job crafting (e.g., Li et al., 2020).

Job crafting is defined as “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (Wrzesniewski & Dutton, 2001, p. 179). Employees may proactively redesign their jobs based on their needs and preferences by changing tasks, ways jobs are perceived, skills used at work, or workplace relationships (Laurence et al., 2020; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Task crafting refers to changes in the type, scope, or number of tasks done while working (e.g., take extra interesting tasks). Relational crafting indicates changes in people with whom one interacts while working (e.g., the quality or amount of interaction at work). Cognitive crafting represents changing how one frames or sees the job (Wrzesniewski & Dutton, 2001; Zhang & Parker, 2019). Job crafting supports individuals to optimize workplace situations to fit their personal needs, preferences, and abilities to enhance work meaning, work identity, and relationships with others (Tims et al., 2012; van Wingerden et al., 2017; Wrzesniewski & Dutton, 2001).

Job autonomy provides employees with freedom, discretion, and independence to proactively craft their jobs based on their personal preferences, needs, and abilities (Dierdorff & Jensen, 2018; Dik & Duffy, 2009; Wrzesniewski & Dutton, 2001). Job crafting as self-initiated actions is likely to enhance employee self-determined motivation to maintain their career paths and fulfill their career goals (Demerouti, 2014; Dubbelt et al., 2019; Goulet & Singh, 2002; Grant & Parker, 2009; Laurence et al., 2020). Based on SDT, job crafting as a mediator between job autonomy and career commitment shows that job autonomy motivates employee job crafting that facilitates a fit between their preferences, needs, and their jobs. This further encourages individuals to be dedicated to their jobs as long-term careers (Afsar et al., 2019; Li et al., 2020). Thus, we introduce the following hypothesis:

**Hypothesis 2:** Employee job crafting mediates the relationship between job autonomy and employee career commitment.

### The Moderating Role of Sense of Calling

Throughout an individual’s career, they impose meanings on working behaviors and workplace experiences by continuously comparing their current conditions with their ideal or expected career paths (e.g., Lin, 2020). To give personal meaning to their career choices, people who know what their
calling, tends to show great attachment to their careers (Dobrow & Tosti-Kharas, 2011). A sense of calling is defined as the meaning that individuals have toward a vocation or profession (Dik & Duffy, 2009; Dobrow & Tosti-Kharas, 2011; Duffy et al., 2012). As a relatively subjective and stable feature, calling represents the passion for a specific career domain that encourages individuals to career that they recognize as meaningful and with prosocial orientation (Dik & Duffy, 2009; Duffy et al., 2012; Hirschi, 2012; Hirschi et al., 2018; Markow & Klenke, 2005). People with a sense of calling often present passion and conviction for their careers and this may influence their work and life (Afşar et al., 2019).

In this study, a sense of calling is adopted as a moderator that impacts the relationship between job crafting and career commitment. Previous discussion proposes that job crafting is self-initiative behavior aiming at adjusting task, cognitive and relationship boundaries to meet individual needs, preferences, and competences that may motivate their engagement in the chosen job to meeting needs (Aryee & Tan, 1992; Blau, 1985; Chang, 1999). Career commitment, representing individuals devote time, energy, and efforts to their entire career, may be strengthened if their current job is consistent with their needs, preferences, and abilities (Afşar et al., 2019). In other words, people with higher sense of calling hold their career as meaningful and show passion and attachment to their career; this motivates them to proactively adjust work activities, such as adding new tasks, attributing meanings, and building relationships to match their preferences and needs to keep their jobs as their long-term career path (Afşar et al., 2019; Aryee & Tan, 1992; Chang, 1999; Dik & Duffy, 2015; Wrzesniewski & Dutton, 2001). Thus, we propose the following hypothesis:

**Hypothesis 3:** An individual’s sense of calling will moderate the relationship between job crafting and career commitment, such that the relationship will be stronger for those with a higher sense of calling than those with a lower sense of calling.

Based on SDT, individual self-determined motivation may be met by proactively changing their job tasks and work roles that help fulfill needs (Dubbelt et al., 2019; Goulet & Singh, 2002; Grant & Parker, 2009; Hirschi et al., 2018). Job autonomy provides employees with discretion to adjust their physical, cognitive, and relation aspects of jobs to meet their needs and satisfy their preferences (Afşar et al., 2019; Chang, 1999). These self-initiative behaviors decrease the misfit between personal preferences and a chosen job and further support individuals to take a job as a long-term career path. People with a higher sense of calling may bring more passion for work, more time and effort to enrich their professional self-actualization (Duffy et al., 2011, 2018). The above-mentioned relationship demonstrates that job autonomy provides employees with more control over their jobs that leads to more commitment to their careers. Higher sense of calling gives inner resources that empower employees to make efforts to retain a job as a long-term career choice through engaging in positive work behavior (i.e., job crafting) empowered by job autonomy (Afşar et al., 2019; Demerouti, 2014; Lee, 2016). The discussion indicates a moderated mediation model that mediated effects of job crafting in the relationship between job autonomy and career commitment depend upon the level of calling. The relationship between job autonomy, job crafting, and career commitment is stronger when employees have higher sense of calling. Thus, we propose the following hypothesis:

**Hypothesis 4:** Individual sense of calling will moderate the strength of mediated relationship between job autonomy and career commitment via job crafting, such that the mediated relationship will be stronger with a higher sense of calling than with a lower sense of calling.

**Method**

**Sample and Data Collection**

Data for this study were collected from the R&D departments in high-tech development and manufacturing companies registered with the Guangdong High-tech Industry Chamber, in Guangdong Province, China, covering several sectors of industry, such as e-commerce, internet of things (IoT) technology, new materials, big data, smart manufacturing, new energy, and electronic information. We propose a framework of a more autonomous workplace in which employees are offered freedom and discretion to complete their jobs following their preferred actions. We consider job autonomy is especially important for R&D professionals in high-tech industries that may serve as a significant predictor to self-initiative behavior and related outcomes.

The snowball sampling is adopted via personal contacts (or guanxi) to access as many companies as possible since this technique is appropriate to apply in the Chinese context (Sun et al., 2007). The survey procedures are as follows. First, current business school graduate students (i.e., MBA and DBA) contacted senior managers in potential companies via personal contacts (or guanxi). After these senior managers showing interest in participating in the survey, they provided human resource (HR) managers’ contact information to those students. Next, researchers directly contacted the HR managers and explained the research. Consenting HR managers randomly selected 20 R&D engineers based on their personnel information; with each R&D manager they arranged an appointment for the survey. To avoid common method bias (Podsakoff et al., 2012), a three-wave procedure was adopted. In each wave, we assigned some trained contact people who hand-delivered the surveys to participants. Surveys were completed during work time and returned directly to the contact person. At Time 1, both demographic information and job autonomy were collected. After 1 month
data for job crafting were collected. One month after Time 2, data for sense of calling and career commitment were collected (Time 3). Mackinnon et al. (2007) proposed that if independent variable, mediator, and dependent variable are measured simultaneously, it could be problematic for a possible causal relationship among these variables. Therefore, we measured job autonomy prior to job crafting and job crafting prior to career commitment. Furthermore, to ensure that the same person answered the questionnaire in this three-stage survey, participants were checked based on the last four digits of their cell phone numbers. Overall, the logic for this research design is mainly based on descriptive research, which tries to provide a detailed, highly accurate picture to uncover a causal process and mechanism (i.e., mediating mechanism, moderating mechanism) between job autonomy and career commitment by survey. Finally, to ensure confidentiality, we assured all participants that this study was conducted for research purposes only and that participation was voluntary.

Five hundred respondents from 25 high-tech companies, with 20 R&D engineers in each, participated in the survey. At Time 1, there were 475 R&D engineers who responded to the survey, yielding a response rate of 95%. At Time 2 and after 1 month, the survey was completed by R&D engineers (91.3% response rate). At Time 3 after another month, the survey was completed by 375 R&D engineers (86.4% response rate). The reduced numbers of questionnaires at Time 2 and Time 3 were due to unexpected respondent absences (e.g., sick leave, business trip, meeting). After matching the samples collected from Time 1, 2, and 3 and excluding those with incomplete information, the final sample consisted of 350 employees and a final response rate of 70%. Of those who responded, 65% were males, and 56.6% had attained a bachelor’s degree. The average age for respondents was 33.11 years ($SD = 7.13$), and the average tenure was 7.68 years ($SD = 6.26$).

**Measures**

**Job autonomy.** A nine-item scale developed by Breauagh (1985) was adopted to measure the three dimensions of job autonomy. This scale asks respondents to assess their method, scheduling, and criteria autonomy. The first dimension was measured via a three-item scale (e.g., I am free to choose the methods to use in carrying out my work). This three-item scale assesses the second dimension: scheduling autonomy (e.g., I have control over the scheduling of my work). Moreover, a three-item measure was used to assess the third dimension: criteria autonomy (e.g., I am able to modify what my job objectives are). Respondents rated their agreement with each statement on a scale from 1 (strongly disagree) to 5 (strongly agree). Alphas for these scales were 0.80 for method autonomy, 0.74 for scheduling autonomy, and 0.80 for criteria autonomy. Cronbach’s alpha for the combined scale was 0.90.

**Job crafting.** Job crafting was measured using the Job Crafting Questionnaire (JCQ) developed by Slep et al. (2013), which includes three subscales, namely, task, relational, and cognitive. Task job crafting was assessed with five items, for example, “Choose to take on additional tasks at work.” Relational job crafting was assessed with five items, for example, “Make friends with people at work who have similar skills or interests.” Cognitive job crafting was assessed with five items, for example, “Think about how your job gives your life purpose.” The whole measure consists of 15 items, and participants indicate the frequency with which they have engaged in each job-crafting activity from 1 (never) to 5 (very often). Alphas for these scales were 0.89 for task job crafting, 0.86 for relational job crafting, and 0.84 for cognitive job crafting. Cronbach’s alpha for the combined scale was 0.94.

**Sense of calling.** Sense of calling was measured using Calling and Vocation Questionnaire developed by Dik et al. (2012), which consists of three subscales, namely, transcendent summon, purposeful work, and prosocial orientation. The first dimension was measured using a four-item scale (e.g., I believe that I have been called to my current line of work). Purposeful work was assessed with four items, for example, “I see my career as a path to purpose in life.” A four-item measure was used to assess the third dimension: prosocial orientation (e.g., my work contributes to the common good). All items were rated on a 5-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Alphas for these scales were 0.84 for transcendent summon, 0.83 for purposeful work, and 0.85 for prosocial orientation. Cronbach’s alpha for the combined scale was 0.94.

**Career commitment.** Career commitment was measured using a seven-item scale of one’s level of commitment to one’s occupation or career field (Blau, 1988), for example, “If I had all the money needed, I still work in this profession.” Each item was assessed using a 5-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Cronbach’s alpha was 0.85.

**Data Analysis**

We tested all hypotheses using the PROCESS macro for SPSS as developed by Hayes (2013). This tool has several advantages. First, it is a path-analytic tool that enables researchers to examine the mediation, moderation, and mediated moderation (i.e., conditional process modeling) effects simultaneously based on bootstrapping procedures. Second, it allows for testing the second stage of moderated mediation (i.e., our research model); the mediating process is moderated because the moderator increases or decreases effect of the mediator on a dependent variable (Edwards & Lambert, 2007; Preacher et al., 2007). Third, and most important, it could be used for a direct test of moderated mediation effects by providing an Index of Moderation Mediation.
In testing our hypotheses, we chose Model 4 and Model 14 of the PROCESS tool (Hayes, 2013), which describes a mediation and a moderated mediation with the second-stage moderation. We used 5,000 bootstraps and a confidence interval (CI) of 95% for estimating the respective effects.

Results

To examine discriminant validity, we used Mplus 7.0 (Muthén & Muthén, 1998–2012) to conduct a confirmatory factor analysis to compare our hypothesized four-factor model (job autonomy, job crafting, career commitment and sense of calling) to a series of alternative models. As shown in Table 1, the hypothesized four-factor model fits the data best, $\chi^2(854) = 1570.70$, comparative fit index (CFI) = 0.92, incremental fit index (IFI) = 0.92, standardized root mean square residual (SRMR) = 0.05, and root mean square error of approximation (RMSEA) = 0.05, providing support for the hypothesized four-factor model and therefore the distinctiveness of the variables in this study.

Table 2 presents descriptive statistics, bivariate correlations, and Cronbach’s alphas for all the variables. The correlation between job autonomy and career commitment ($r = 0.19, p < .001$) provides initial support for our first hypothesis.

Testing the Main Effect and Mediation Effect

Before testing the mediation model, we specified the main effect of job autonomy on career commitment. The result of the PROCESS macro provides support for the main effect of job autonomy on career commitment ($\beta = 0.19, SE = 0.05, p < .001$). Hypothesis 1 was supported. To test the mediation hypothesis, a path analysis was used to examine whether job crafting mediated the relationship between job autonomy and career commitment and bootstrapping analysis was conducted to assess the significance of indirect effects (Shrout & Bolger, 2002). Figure 2 presents standardized coefficient estimates for the mediation model. Job autonomy was positively related to job crafting ($\beta = 0.36, SE = 0.06, p < .001$), and job crafting was positively related to career commitment ($\beta = 0.15, SE = 0.06, p < .05$). Consequently, we further tested the hypothesized indirect effect in the mediation model by using a bootstrapping approach. Results showed that the indirect effect of job autonomy on career commitment through job crafting was 0.05, significantly different from zero with a 95% CI of [0.01, 0.11]. Thus, Hypothesis 2 was supported.
Testing the Moderation and Moderate Mediation Effect

Regarding Hypothesis 3, we predicted that the positive relationship between job crafting and career commitment would be stronger for individuals high on sense of calling than for individuals low on sense of calling. Results indicated that the cross-product term (i.e., interaction) between job crafting and individual’s sense of calling on career commitment was significant (β = 0.18, t = 3.14, p < .01). To further qualify the interaction between job crafting and sense of calling, we applied conventional procedures for plotting simple slopes (see Figure 3) at one standard deviation above and below the mean of sense of calling. Consistent with our expectation, the slope of the relationship between job crafting and sense of calling was strong (simple slope = 0.45, t = 5.40, p < .001) when individual’s sense of calling was high, whereas the slope was relatively weak (simple slope = .16, t = 2.83, p < .01) when individual’s sense of calling was low. Therefore, Hypothesis 3 was supported. Next, we examined the conditional indirect effect of job autonomy on career commitment through job crafting. Based on the analytical results, the Index of Moderated Mediation was significant, Boot indirect effect = 0.11, SE (Boot) = 0.04, 95% Boot CI [0.04, 0.21] (Table 3). Standardized coefficient estimates of the moderated mediation model are presented in Figure 4. To clearly identify the indirect effect at different levels of moderator (one standard deviation above the mean and one standard deviation below the mean, respectively), we graphically depicted the conditional indirect effect as shown in Figure 5. This shows that the conditional indirect effect was not significant at low level of individual’s sense of calling, Boot indirect effect = 0.05, SE (Boot) = 0.03, 95% Boot CI [–0.01, 0.11], but it was significant at high level of individual’s sense of calling, Boot indirect effect = 0.16, SE (Boot) = 0.04, 95% Boot CI [0.09, 0.25], (Table 3). Therefore, Hypothesis 4 was supported.

Discussion

Advanced technology, dynamic markets, and organizational restructuring have led to changes in job features and the workplace (Kira et al., 2010). For both organizations, and individuals working in the high-tech industry in particular, it is relatively challenging to maintain employment relationships with one another (Li et al., 2020). Career success is important to both individuals and organizations since these employees are more likely to remain with their organizations when facing challenges. A career is a series of learning, work-related experiences and relationship building throughout one’s life. If employees identify a chosen job matches their preferences and needs, they are more likely to stay with that job and take the job as a long-term relationship (i.e., career commitment) (Afsar et al., 2019; Goulet & Singh, 2002). If an individual has a high level of attachment in their career, it may lead to positive work outcomes, such as career commitment (Afsar et al., 2019). Previous studies proposed that it is important to take both work situations and individual characteristics into consideration regarding career commitment (Aryee & Tan, 1992; Chang, 1999). This study first examined the impact of job autonomy as an important job characteristic provided by organizations (Dubbelt et al., 2019). Based on SDT, employees are likely to commit to their career if they perceive job autonomy that allows them to arrange work schedules and adjust work methods to attain their career goals (Berg et al., 2010; Demerouti, 2014; Hirschi et al., 2018). Job autonomy enables individuals to
have more control over their workplace conditions, such that positive job experiences help build long-term relationships with organizations that develop career commitment (Dubbelt et al., 2019; Goulet & Singh, 2002).

Next, we examined whether the link between job autonomy and career commitment was mediated by job crafting. The results support that job autonomy is positively related to career commitment through job crafting since it allows individuals to control and cope with demands with discretion by means of proactive behaviors to change the behavioral, relational, and cognitive boundaries in their work (Wrzesniewski & Dutton, 2001). Job autonomy satisfies individual need for autonomy and enhances self-determined motivation based on preferences and capabilities so that the attachment with organizations may last (i.e., career commitment) (Berg et al., 2010; Demerouti, 2014; Goulet & Singh, 2002; Hirschi et al., 2018). The more employees perceived organizational practices (i.e., job autonomy), the more proactive work behaviors, like job crafting, they may initiate. Also, the more involvement and attachment employees have with their career. It is expected these self-initiative actions may further lead to greater commitment to their careers (Demerouti, 2014; Goulet & Singh, 2002; Grant & Parker, 2009; Markow & Klenke, 2005; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001).

Furthermore, we included a sense of calling as moderator of the relationship between job autonomy and career commitment through job crafting. Results from the moderated mediation model suggested that those with higher sense of calling may encourage individuals to self-initiate behaviors to maintain their career commitment. When they perceive their job as their calling, individuals are intrinsically motivated to redesign jobs that leads to a meaningful life and fulfillment in their career (Lee, 2016; Lin, 2020).

Finally, the findings support previous research that career commitment can be strengthened from the organizational perspective (i.e., job autonomy) and the individual perspective

| Table 3. Regression Results for Moderated Mediation (N = 350). |
|----------------------------------|
| **Index of moderated mediation** |
| **Mediator** | **Moderator** | **Index** | **SE(Boot)** | **Boot LLCI** | **Boot ULCI** |
| Job crafting | Sense of calling | 0.11 | 0.04 | 0.04 | 0.21 |
| Job crafting | M + 1SD | 0.16 | 0.04 | 0.09 | 0.25 |
| Job crafting | M − 1SD | 0.05 | 0.03 | −0.01 | 0.11 |

Note. Bootstrap sample size = 5000; LL = lower limit; UL = upper limit; CI = confidence interval.

![Figure 4. Moderated mediation model results.](image)

![Figure 5. Conditional indirect effect of job autonomy on career commitment via job crafting at different values of an individual’s sense of calling.](image)
(i.e., sense of calling). When individuals have higher sense of calling, intrinsic motivation to work as a resource may motivate them to make more efforts; once they perceive opportunities provided by organizations to undertake job crafting, it may further increase involvement and dedication to career commitment (Lee, 2016).

Theoretical Implications

Career commitment has received attention since it affects individuals’ attitudes and working behaviors (Aryee & Tan, 1992; Lin, 2020). Prior findings reflect that employee commitment to their career is significantly influenced by their workplace perceptions if organizations satisfy their needs to attain goals by practices provided (Aryee & Tan, 1992; Chang, 1999). Besides, job design research based on SDT examined the outcomes of offering autonomous alternatives and the results of self-determined motivations on related job outcomes (e.g., Hackman & Oldham, 1976). According to SDT, individual experience self-determined motivation from autonomy supportive job characteristics provided by organizations (e.g., job autonomy) if work meets their basic needs. Self-determined motivation may further positively impact on career attitudes (e.g., career commitment). This research then includes calling as the moderator to examine the impact on the abovementioned relationship. When individuals have higher sense of calling, it not only shows one’s sense of purpose at work but also provides purposes and contribution beyond oneself for others (Dik & Duffy, 2009). The role of calling in one’s career may stimulate individuals with initiatives to make more efforts to develop capabilities and skills that are valuable for their career (Aryee & Tan, 1992; Chang, 1999; Dik & Duffy, 2009).

As a result, to reflect the appeal urging researchers to investigate how important topics in these fields are interrelated, this study explores career commitment by taking both situational and personal factors into consideration since it brings integrated perspectives to effectively understand the complex working conditions (Federici et al., 2019). We delve into the predictors of career commitment complementing previous research that emphasizes either contexts or personal elements by examining organizational interventions (i.e., job autonomy) to facilitate self-initiative behaviors; and, further include individual characteristics (i.e., a sense of calling) to increase involvement in chosen jobs (i.e., career commitment) (Afsar et al., 2019; Blau, 1985; Chang, 1999; Federici et al., 2019; Lin, 2020; Lysova et al., 2019). This study broadens the field to integrate job design with career development domains. The results supported that job autonomy has influence on facilitating self-determined motivation and further enhancing long-term career commitment in one’s life.

Practical Implications

The present study focuses on the relationship between job autonomy and career commitment by including job crafting as mediator and sense of calling as moderator. Prior research demonstrates that job autonomy may lead to more commitment, personal growth and development, higher job satisfaction, and well-being (Debus et al., 2019; Morgeson & Humphrey, 2006). Job autonomy provided by organizations allows employees to flexibly arrange their schedules and methods to complete their jobs. For organizations, it is important to be aware of the individual differences in managing job design to continuously support employees to arrange workplace conditions based on their preferences, needs, and abilities to better achieve their career goals (Demerouti, 2014; Hirschi et al., 2018). Managers may encourage employees to temporarily or permanently change tasks involved in their jobs (Dik & Duffy, 2015). By involving relational job-crafting behaviors, for example, managers may motivate employees to build their own supportive networks among colleagues within organizations, to feel more supported in the workplace (Dierdorff & Jensen, 2018). Also, actively building different communication channels within organization can also facilitate information sharing to complete tasks in more efficient ways. Regarding cognitive crafting, managers may engage employees to mentally transform their day-to-day routines into the greater mission of their careers and match their calling that leads to a broader sense of purpose (Dierdorff & Jensen, 2018; Grant & Parker, 2009). For employees, having meaningful work may facilitate positive perceptions and behaviors at work. To ignite personal sense of calling toward current jobs, organizations may start from mapping a clear and long-lasting vision and mission, developing authentic leadership, as well as building respectful social interaction to emphasize the significance of committed relationships. This study suggests that those factors may exert impacts on sustainable careers for employees in a changing workplace.

Limitations and Future Directions

This study has some limitations. First, it relates to the research sample, which is relatively limited in more specific area (i.e., Guangdong Province) and types of employees (i.e., R&D engineers in high-tech industry). Thus, to further generalize the results, future research may replicate this study among different provinces in China and with different types of employees in different industries. Second, due to the self-reporting nature, common method variance may occur, although we did follow Podsakoff et al.’s (2012) procedures (e.g., multiwave data collection) to avoid it. Future research may combine multiwave and multisource data collection (i.e., job crafting responded by direct supervisor) to minimize the problem of common method bias. Third, the partial support of our mediation model implies that certain mediators may exist. Therefore, future research is encouraged to consider other mediating mechanism based on career development perspective (i.e., career path) or career identity perspective (i.e., job satisfaction).
In addition, although sense of calling is taken as a moderator to examine its impact on employee career commitment, we did not distinguish employees who are living or having a calling at work (e.g., Duffy et al., 2012, 2013). The distinction between living a calling and having a calling is based on the assumption that it is challenging for everyone to have a job that fits his or her career priorities. Future research may separate these two concepts for more nuanced results since living their calling can engender passion for their career to facilitate individuals to adjust their current jobs for a greater alignment with what they take as a calling to attain this in their personal career (Duffy et al., 2012). Furthermore, the current research framework includes the individual-level moderator variable (i.e., individual’s sense of calling). External contextual variables, such as organizational climate, a shared perception by employees in the work environment, may act as an important boundary condition that influences the motivation and behavior of employees. Therefore, future research may include the contextual factor (e.g., supportive climate) as a moderator to expand the conceptual scheme from the single level to the multilevel research.

Conclusion

Nowadays, individual careers have become less predictable and job transition also more frequent. Thus, this study extends the job design literature by looking into career commitment and its relationship with both personal and organizational predictors. The current results show that the relation of job autonomy to career commitment is mediated by job crafting, where a sense of calling moderates the links between job crafting and career commitment. These results bring implications to further understand and learn how to enhance individual career commitment for organizations to develop a relatively more stable workforce. This study includes both job autonomy and individual sense of calling that may lead to more dedication to employee commitment toward their own careers by proactively crafting their individual jobs.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The author(s) received the open subject of School of Economics and Trade, Guangxi University of Finance and Economics, Nanning, China, in 2020 (No. 2020ZD06).

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