The Effect of Job Characteristics on Organizational Commitment: The Role of Growth Need Strength in Nepali IT Companies

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Abstract

Organizational commitment is one of the critical problems faced by the organizations, today. The outcomes related to commitment i.e. turnover and absenteeism can be resolved through enriched jobs. However, there is limited knowledge availability both from practical and academic aspects regarding the effect of job characteristics on organizational commitment, and keeping this perspective in mind this study examined the effect of job characteristics on organizational commitment in Nepali IT companies along with the moderating effect of growth need strength. Altogether 167 responses were collected from employees using survey questionnaire. Regression analysis and multiple moderated regression analysis were carried out to examine the hypothesized relationship. The results indicated that job characteristics had a significant positive effect on organizational commitment and among the five dimensions of job characteristic only skill variable had a non-significant effect on organizational commitment. However, the moderating effect of growth needs strength on job characteristics and organizational commitment relationship could not be established. Research implications along with the limitations of this study are discussed.

Keywords: Job characteristics, task identity, organizational commitment, skill identity, growth need strength, information technology

Introduction

Organizational commitment as employees' behavioral concept has gained popularity and several researches have been conducted in the field in recent years. Committed employees are major assets and vital source for organizations to gain competitive advantage. Keeping this perspective in mind many academicians and practitioners in a wide variety of work settings have tried to identify its positive effect on job performance, organizational effectiveness and to reduce tardiness, absenteeism and turnover (Steinhaus & Perry, 1996; Sharma, 1997). There are sufficient empirical evidences that demonstrate the importance of having committed workforce such as they have a strong acceptance for organizational values stay with the organization (Nguyen, Mai & Nguyen 2014) and exhibit higher levels of performance and productivity (Steinhaus & Perry, 1996). However there are evidences that highlight invariance in the structure of organizational commitment due to cultural differences (Stinglhamber & Vandenbergh, 2003). For example according to Hofstede’s (1980) cultural
dimensions commitment is likely to be higher in more individualistic and less authoritarian countries (low power distance), whereas if we look at the cultural dimensions of Nepal, it is more collectivist in nature and with higher power distance (Gautam, Dick, Wagner, Upadhyay & Devis, 2005) hence this highlights the need to examine organizational commitment from a localized perspective.

Many researchers have identified the factors affecting organizational commitment (e.g. Mathieu & Zajac, 1990; Haq, Jindong, Hussain & Anjum, 2014) and job characteristics are one of them (Steers & Spencer, 1977). Organizational commitment can be increased by improving the dimensions of job characteristics such as skill variety, task identity, task significance, autonomy and feedback (e.g., Agarwal & Ramaswami, 1993; Steers, 1977). Studies have shown that employees rating their jobs higher with respect to the core characteristics of the job are more committed towards their organization and satisfied with their respective jobs (e.g., Herman, 1988; Loher, Noe, Moeller & Fitzgerald, 1985; Konya, Matic & Pavlovic, 2016; Hackman & Lawler, 1971). If we look into the Nepali organizational context, there are discrepancies between the actual job description and the tasks assigned to the employees further resulting into less commitment and high turnover ratio of employees (Merojob, 2016). Hence this highlights the need to focus on job characteristic dimensions in advance so that a match can be created between the actual job requirement and the needs of employees to fill in the gap and enhance their commitment level. Though many research studies have supported the job characteristics model, there are few evidences that show lack of consensus regarding the core job dimensions and the moderating variables (Djastuti, 2010; Taghavi & Gholami, 2015; Sadono, 2016; Sisodia& Das, 2013; Morgeson, Garza & Campion, 2012; Tiegs, Tetrick& Fried, 1992) and the mediating variables also have received limited support except for experienced meaningfulness (Humphrey, Nahrgang & Morgeson, 2007).

Due to globalization and technological advancement there has been changes in the way jobs are designed, further resulting into creation of new jobs in the service and knowledge sectors (Elsback & Hargadon, 2006; Parker, Wall & Cordery, 2001; Rousseau & Fried, 2001). These changes in the jobs demand more autonomy given to the employees to design their own jobs; extend their role and bring changes in the tasks they perform (Wrzesniewski & Dutton, 2001; Parker, Wall & Jackson, 1997; Staw & Boettger, 1990). Job designing is one of the core functions of human resource management, as it helps in satisfying the social and psychological requirement of the employees and meets the personal and organizational goals (Hackman & Oldham, 1974). The most established job design theory is the job characteristics model proposed by Hackman and Oldham (1976). According to the job characteristics model three psychological states (experienced meaningfulness of the work, experienced responsibility for work outcomes, and knowledge of actual work outcomes) must be present to achieve positive and personal work outcomes (Hackman & Oldham, 1976). Job characteristics such as skill variety, task significance, task identity, autonomy and feedback increase the commitment of employees (Hackman & Lawler, 1971). However the critiques of JCM highlight the importance of physical context of the job while examining the effect of job characteristics on motivation, commitment and satisfaction of employees (Nicholson, 2010).

Hence looking at the important role of job characteristics and organizational commitment, if we look into Nepali organizational context only few researchers have examined the relationship between job characteristics and organizational commitment (Shrestha, 2010; Gautam, Dick & Wagner, 2001) and the rise in the number of knowledge workers create the need to examine the effect of job characteristics on organizational commitment of IT employees and the role of growth need strength.
Organizational Commitment

Organizational commitment is one of the most researched topics in industrial and organizational psychology (Cohen, 2003). Organizational commitment has also been found to influence the behavior of employees, and employees with high commitment level are found to be more disciplined and don’t leave the organization (DeConinck & Bachmann, 2005). Hence, it is important for managers to focus on increasing the commitment level of employees. The side-bet approach explained the relationship between the employee and organization that is based on the ‘contract’ of economic gains (Ghosh & Swamy, 2014). In the middle-era there was a shift from the side-bet approach towards a psychological connection with the organization (Mowday, Steers, & Porter, 1979). The third-era was of multidimensional approach proposed by Meyer and Allen (1991) and conceptualized organizational commitment in three dimensions: affective, continuance and normative. It still remains a leading approach to measure organizational commitment (Ghosh & Swamy, 2014).

Organizational commitment helps the employees to identify his/her goals with that of the organization and motivates the employees to remain with the organization (Mosadeghrad, Ferlie & Rosenberg, 2008). The term organizational commitment was first introduced by Mowday, Steers and Porter (1979) in management and organizational behavior sciences. Meyer and Herscovitch (2001) presented the tri-component model consisting of affective component describing the emotional dependence of employees and positive attitude towards their organization; continuous commitment describing the esteem of employees to stay with the organization and normative commitment describing the employee’s necessity to stay with the organization. Based on the theoretical assumptions, the tri-component model of organizational commitment was found most suitable as it offers a deep understanding of the individual’s psychology and its interaction with the organization (Ghosh & Swamy, 2014).

Job Characteristics

Job characteristics theory also known as the work design theory provides a set of principles that help in enriching the jobs in the organization (Hackman & Oldham, 1975). Job characteristics model was first developed by Hackman and Lawler (1971) based on behavioral approach and expectancy theory (Guise, 1988). They identified four core job characteristics i.e. variety, autonomy, task identity and feedback in their model but their study results were not statistically significant in predicting the effect of core job characteristics on decreasing absenteeism and turnover. Later Hackman and Oldham (1975) revised the original job characteristics model and included another core characteristics and intermediating variables that were important (Guise, 1988). The job characteristics theory of Hackman and Oldham (1974) measures the objective characteristics of a task resulting into higher job satisfaction, internal work motivation and improved performance. Their theory suggested that individual employees might respond in a different manner to the same job.

The job characteristics model was formulated to identify the motivational properties of jobs prior to job design and also acknowledges and measures the growth need strength of employees (Hackman &Oldham, 1974). Hackman and Oldham (1976) explained the five job characteristics that lead to the desired psychological states and the presence or absence of these characteristics have an effect on the motivation and job satisfaction of employees. The five core job characteristics are described below:
1. Skill variety: It is the degree to which variety of different activities are required to perform a particular job. This involves use of variety of skills of the individuals in their job.

2. Task identity: This refers to the degree to which a job requires completion of the “whole” and identifiable piece of work. In other words, completing a job from beginning to end with visible outcomes.

3. Task significance: This refers to the degree to which the job has a substantial effect on the lives or work of other people whether those people are from within or outside the organization.

4. Autonomy: It is the degree to which there is freedom, independence and discretion to individual in scheduling their work and in determining the ways to perform it.

5. Feedback: It is the degree to which the job results in the individual obtaining clear information about their performances (Hackman & Oldham, 1974).

Hackman and Oldham (1974) further explained that by bringing changes in these five core job characteristics the job can be redesigned so that the job becomes more meaningful and rewarding to the employees. Pinder (1984) also further supported this and confirmed that job enrichment doesn’t motivate all individuals as some individuals prefer job security, working conditions and pay increment as important factor and their preferences may change with time. However, besides lack of consensus the job characteristics model has been widely used by many researchers in their study (e.g., Guise, 1988; Lawrence, 2001; Lunenburg, 2011; Herman, 1988). The meta-analysis of job characteristics model highlighted that changes in the work and differences across the industries influence the impact the job characteristics and outcomes relationship (Humphrey, Nahrgang & Morgeson, 2007). Hence future research should focus on examining the relationship by keeping the type of work and industries in mind.

**Job Characteristics and Organizational Commitment**

Many research studies have identified the factors that influence employee’s commitment; and job designing has been found to highly influence the behavior and attitudes of employees (Sadler-Smith, El-Kot & Leat, 2003). Job characteristics have been found to positively influence the level of job satisfaction and commitment of employees (e.g., Choudhary, Kumar & Philip, 2015; Konya, Matic & Pavlovic, 2016; Banks, 2006; Faraji, Ramazani, Hedaiaiati, Aliabadi, Elhamirad & Valiee, 2015; Ahmad, 2017; Ozturk, Hancer & Im, 2014). However Obi-Nwosu, Chiamaka and Tochukwu(2013) found only two variables i.e. dealing with others and task identity partially predicted organizational commitment positively whereas the other five dimensions i.e. skill variety, task significance, autonomy, feedback from the job and feedback were not found significant. Skill variety also positively influences organizational commitment and job satisfaction of employees (Djastuti, 2010; Taghavi & Gholami, 2015; Sadono, 2016; Umukoro & Egwakhe, 2019; Ali, Said, Yunus, Kader, Latif & Munap, 2014, Obi-Nwosu et al., 2013; Thirunavukarasu & Sritharan, 2016; Malik & Narang, 2015).

Task identity is one of the ways in which the employee’s motivational level can be enhanced and found to satisfy employees; increase commitment level; experience less stress; enhances organization learning (Choge, Chepkiyeng & Chelimo; Ali et al., 2014; Umukoro & Egwakhe, 2019; Lunenburg, 2011; Khayat & Gheitani, 2015; Pee, 2011; Nyabundi & Kagiri, 2016). The positive effect of task significance on organizational commitment; job performance; quality of work life, job satisfaction has been identified (Sadono, 2016; Allan, Duffy & Collisson, 2016; Hassan & Samah n.d.; Ali et al., 2014; Umukoro & Egwakhe, 2019). Another job characteristic dimension autonomy increases job satisfaction of employees, increases employee commitment; vitality of employees (Shrestha, 2010; Ali
et al., 2014, Sadono, 2016; Sisodia & Das, 2013; Naqvi, Ishtiaq, Kanwal & Ali, 2013; Taghavi & Gholami, 2015; Lin & Ping, 2016; Ozturk et al., 2014; Tummers, Steijan, Nevicka & Heerema, 2018; Umukoro & Egwakhe, 2019). The feedback dimension is important for the employees to continuously improve their job performance and many studies have identified the positive effect of feedback on organizational commitment; (Ozturk et al., 2014; Farazi et al., 2015; Umukoro & Egwakhe, 2019; Amakiri & Luke, 2016; Volmer, Spurk & Niessen, 2012). Hence based on the above evidences this study proposes the following hypotheses:

H1a: Job characteristics positively affects organizational commitment.
H1b: Skill variety positively affects organizational commitment.
H1c: Task identity positively affects organizational commitment.
H1d: Task significance positively affects organizational commitment.
H1e: Autonomy positively affects organizational commitment.
H1f: Feedback positively affects organizational commitment.

**The Moderating Effect of Growth Need Strength**

Growth need strength can be defined as the strength of an individual’s need for personal accomplishment, learning and development and has been identified as an important moderator on the relationship between core job characteristics and psychological states and also on the relationship between psychological states and outcomes (Hackman & Oldham, 1974). Growth need strength is an important element that has a moderating effect on job enrichment as compared to other psychological or sociological factors (Pinder, 1984). Hackman and Oldham (1975) also found that individuals who strongly valued growth and desired for personal accomplishment positively responded towards the job that were high on these characteristics. Whereas individuals low in their personal growth need did not value and recognize the opportunities available in the job. Also according to the job characteristics theory the “need” state of the employee affects the relationship between task characteristics and the employee’s reaction towards their job (Hackman & Lawler, 1971).

Growth need strength has been examined as moderator by many researchers, but many researchers have only examined the relationship between the core job characteristics and outcomes eliminating the critical role of the psychological state (Guise, 1988). Results varied from strongly supportive to moderately supportive. For example, Shanthakumary (1998) found that when the growth need strength of the employees was high there was a strong positive relationship between job characteristics and job satisfaction and few research studies were inline with this results (e.g., Graen, Scandura & Graen, 1986; Guise, 1988; Loher & Noe, 1985). However Tiegs et al. (1992) conducted their study to examine the moderating role of growth need strength and context satisfaction and found that both the moderators did not have any influence on job characteristics and job satisfaction and the results were similar in few studies (e.g., Jelstad, 2005; Tiegs et al., 1992; Schuler, 1977; Pokorney, Gilmore & Beehr, 1980) and yielded mixed results. Hence on the basis of the above evidences it is hypothesized that:

H2: Growth need strength of employees moderates the relationship between job characteristics and organizational commitment of employees.
Methods

Research Design

This study followed a deductive approach and was cross-sectional in nature. Self-administered questionnaire was used to collect the data from the employees working in IT organizations and the unit of analysis was individual. The population of this study included the IT employees working at the middle level and higher level in the organizations. The IT organizations included Internet Service Providers and IT consulting firms operating in three districts of Nepal i.e. Kathmandu, Lalitpur and Bhaktapur and the data on the number of IT organizations was obtained from (http://digitalample.com/it.companies.in.nepal/software.companies.in.nepal). The samples were selected using a simple random sampling technique and all the elements of the population were considered and the samples had an equal chance of getting selected.

Measures and development of the questionnaire

Previously developed scales were used to measure job characteristics, organizational commitment and growth need strength in this study using a 7-Point Likert scale ranging from strongly disagree to strongly agree. In this study organizational commitment was measured using a 9 – item shortened version of organizational commitment questionnaire (OCQ) developed by Mowday, Steers and Porter (1982) and the Cronbach's alpha value ranged between 0.74 to 0.92 (Vandenberg & Lance, 1992).
Many researchers have previously used this to scale in their studies (e.g., Cohen, 1996; Thompson & Werner, 1997) further confirming its reliability and validity.

**Job Characteristics**

To measure job characteristics a 10-item scale developed by Idaszak and Drasgow (1987) based on the job diagnostic model developed by Oldham and Hackman (1984) was used in this study. The reliability for each factor ranged from 0.77 to 0.79 (Choudhary, Kumar & Philip, 2015). The reason for using this scale was that this scale provided measurement equivalence, and was positively coded which was missing in the original job diagnostic survey (Idaszak, Bottom & Drasgow, 1988). Also comparing the reverse coded questions with the positive coded one had less variance (Harvey, Billings & Nilan, 1985) further confirming the reliability of the scale developed by Idaszak and Drasgow (1987).

**Growth Need Strength**

Growth need strength was measured using a 6-item scale developed by Hackman and Oldham (1975) with the cronbach alpha value between 0.83 to 0.89. This scale has been widely used in studies related to job characteristics and various outcomes (Guise, 1988, Aloysius, 2011).

The questionnaire comprised of five demographic variables and the remaining 25 items were related to job characteristics, organizational commitment and growth need strength used in this study. Regarding the total sample size estimation as per the rule of thumb the ratio of statement to the respondents should not be less than 1: 5 (Hair, Black, Babin & Anderson, 2010). In this research survey instrument there were 3 latent variables (i.e. job characteristics, organizational commitment and growth need strength) and as per the rule of thumb depending on the items the minimum sample requirement was found to be 125, So based on this altogether 200 questionnaire samples were distributed out of which the total responses obtained were 167 (83.5%) which was considered good for the generalization of the result. Before administering the questionnaire to the target samples pilot test was conducted with ten prospective candidates to check the clarity of the items used in the questionnaire.

**Data Processing and Analysis**

**Reliability analysis and descriptive analysis**

The Cronbach's alpha value was computed to measure internal consistency among the items of each section of the instrument and is presented in Table 1. Analysis of the socio-demographic variables i.e. gender, age, education level, tenure in the organization and marital status obtained from the questionnaire was carried out. Out of the total 200 sets of questionnaire distributed yielded 167 (83.5%) responses. The response distribution comprised of male (59.3%) and female (40.7%). Most of the respondents (69.5%) belonged to the age group between 25-35 years and around (58.7%) respondents completed their bachelor's degree. Marital status of the respondents comprised of unmarried (51.5%) and (52.7%) employees were working in this organization for more than two years. The descriptive analysis of the variables under study indicated the overall mean scores of all the items and out of which the mean score of task significance was the highest i.e. 5.44 (S.D = 1.12) as compared to other items indicating the preference of task significance was high among the employees and is described in Table 1 given.
Results

Table 1 provides the detailed information regarding the descriptive statistics and intercorrelations of the study variables along with their Cronbach alpha values. The correlation matrix indicates that there was a significant positive correlation (p<0.01) between organizational commitment and job characteristics variables (task identity, task significance, autonomy and feedback) except for skill variety in this study. The results indicated that the relationships between the variables were in the intended direction. Further regression analysis was conducted to test the relationship between job characteristics and organizational commitment with the interaction effect of the moderating variable.

Table 1

|          | Mean | SD  | Cronbach Value |
|----------|------|-----|----------------|
| 1        |      |     |                |
| Skill Variety | 4.72 | 1.22| 0.60           |
| 2        |      |     |                |
| Task Identity | 4.81 | 1.30| 0.78           |
| 3        |      |     |                |
| Task Significance | 5.44 | 1.12| 0.63           |
| 4        |      |     |                |
| Autonomy | 4.91 | 1.41| 0.78           |
| 5        |      |     |                |
| Feedback | 5.08 | 1.16| 0.88           |
| 6        |      |     |                |
| Job Characteristics | 4.99 | 0.87| 0.88           |
| 7        |      |     |                |
| Organizational Commitment | 5.38 | 0.95| 0.87           |
| 8        |      |     |                |
| Growth Need Strength | 5.16 | 1.27| 0.90           |

Notes: * p <.05; ** p< 0.01

Regression Analysis

Linear regression analysis examined the proposed hypotheses regarding the effect of job characteristics on organizational commitment and is explained in Table 2 below:
Table 2

*Linear Regression for Examining the Relationships between Job Characteristics and Organizational Commitment*

| Predictors                | Standardized Beta Coefficient |
|---------------------------|------------------------------|
| Job Characteristics       | .490**                       |
| $R^2$                     | .240                         |
| $F$                       | 52.026                       |

Organizational Commitment-Dependent Variable

Notes: *$p<0.10$, $p^{**}<0.05$, $p^{***}<0.01$*

Table 3

*Linear Regression for Examining the Relationships between Different Dimensions of Job Characteristics and Organizational Commitment*

| Predictors              | Standardized Beta Coefficient |
|-------------------------|------------------------------|
| Skill Variety           | .142                         |
| Task Identity           | .316**                       |
| Task significance       | .315**                       |
| Autonomy                | .483**                       |
| Feedback                | .435**                       |
| $R^2$                   | .286                         |
| $F$                     | 12.875                       |

Organizational Commitment-Dependent Variable

Notes: *$p<0.10$, $p^{**}<0.05$, $p^{***}<0.01$*

The results from the Table 2 indicate that the regression model for job characteristics and organizational commitment was significant ($F = 52.026$, $p = 0.05$). The results also indicate that the job characteristics explained the variances in organizational commitment by 24%. This supported hypothesis 1a in this study. The regression on the five dimensions of job characteristics of organizational commitment results in four dimensions being significant ($F = 12.875$, $p = 0.05$) except for skill variety. However, the five dimensions of job characteristics explained the variances in organizational commitment of employees by 28% that further justified the significance of the model. Skill variety showed non-significant beta coefficient but positive effect on organizational commitment, rejecting hypotheses 1(b). The direction and significance at the 5% level of significance supported the hypotheses 1(c). Both the direction and task significance was significant at the 5% level of significance and supported the hypotheses 1(d). Autonomy and feedback were also found to have a significant positive effect on organizational commitment, supporting hypotheses 1e and 1f.

To test the moderating effect of growth need strength (GNS) on the relationship between job characteristics and organizational commitment the interaction term of independent variable (job characteristics) with moderator (growth need strength) was introduced in the regression model 2 (see Table 4). The results indicated that there was no moderating effect of growth needs strength on the relationship between job characteristics and organizational commitment as the coefficient on interaction effect was found insignificant in predicting organizational commitment. According to Aguinis (1995) the presence of moderating effect can be confirmed on the basis of $F$-statistics significance and the
significance of beta coefficients of the interaction terms in the regression model. So on the basis of the F value (17.34, p<.05) the MMR model was found significant but the beta coefficient value was found insignificant, rejecting hypothesis 2. The results of the MMR is discussed in the Table 4 given below:

Table 4

| Model | Unstandardized Coefficients | Standardized Coefficients | p-value | F | Sig |
|-------|----------------------------|---------------------------|---------|---|-----|
|       | (Constant)                 |                           |         |   |     |
| 1     |                            |                           |         |   |     |
|       | JC                         | .530                      | .485    | .000 | 25.886 | .000 |
|       | GNS                        | .012                      | .016    | .828 |         |     |
| 2     |                            |                           |         |   |     |
|       | (Constant)                 | 3.672                     | 1.554   | .019 | 17.344 | .000 |
|       | JC                         | .315                      | .288    | .346 |         |     |
|       | GNS                        | -.171                     | -.228   | .544 |         |     |
|       | JC* GNS                    | .039                      | .361    | .509 |         |     |

Note. JC, Job Characteristics; GNS, Growth Need Strength; JC * GNS (Interaction Term) and Dependent Variable: Organizational Commitment.

Discussion

The empirical evidences highlighted the important role of job characteristics in bringing positive changes in the level of employee’s commitment, job satisfaction, intention to quit improve performances (Obi –Nwosu et al., 2013; Ozturk et al., 2014; Banks, 2006; Steers, 1977; Lawrence, 2001; Lunenburg, 2011) and this study supported the positive effect of job characteristics on organizational commitment and was inline with the previous studies (e.g., Konya et. al., 2016; Herman, 1988; Steers & Spencer, 1977; Faraji et al., 2015). This study confirmed that task identity had a significant positive effect on organizational commitment and supported the findings of previous studies (e.g., Obi-Nwosu et al., 2013; Steers, 1977) indicating that the jobs in this study were designed in a manner that the knowledge employees were able to complete multiple tasks with less time and independently. As suggested by Oldham & Hackman (1975), when employees are given a job to complete on their own from starting to the end (task identity) the outcome increases the commitment of employees. Task significance was also found to have a positive effect on organizational commitment in this study (Sadono, 2016; Allan, Duffy & Collisson, 2016; Hassan & Samah, n.d., Ali et al., 2014; Umukoro & Egwakhe, 2019) indicating that the jobs that were studied were designed to increase significance of task to impact other people associated with the job (both inside & outside) and increase the social interaction among the members. Task significance is more important for knowledge workers as they demand more social interactions and work dependency (Grant, 2008; Morgeson & Campion, 2003) and have positive effect on commitment and job performance (Allan, Autin & Duffy, 2014; Nzewie Chiekezie, Ekene, Raphael & Ebuka, 2017; Lynton & Pareek, 2000; Khayat & Gheitani, 2015).

Employee engagement and performance is high when employees are given more freedom to complete their job and also increases their level of responsibility, however too much autonomy can

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backfire on the level of commitment (Magaji, 2015; Kariuki & Makori, 2015). Albeit this study results confirmed that by giving autonomy to employees the commitment level could be increased. The positive findings of this study to some extent were helpful in understanding the importance of autonomy and its positive effect on organizational commitment and were inline with the job characteristics model (Hackman & Oldham, 1975). Another important dimension i.e. feedback explains the positive effect of receiving continuous information regarding the job being done to bring effectiveness (Hackman & Oldham, 1975), as the absence of feedback mechanism makes the employees dissatisfied and they view the organization as unfair and ineffective (Mone & London, 2010). The study results confirmed the positive effect of feedback on organizational commitment affirming that the job feedback gave the employees the knowledge regarding the work activities and they used the information to bring effectiveness in their work. The study results were in line with the previously conducted studies (Lunenberg, 2013; Konya, Matic& Pavlovic, 2016; Farazi et al., 2015).

However skill variety was found insignificant in this study in contrast to the job characteristic model proposed by Hackman and Oldham (1974). The results of some studies have suggested the insignificant relationship of skill variety with organizational commitment (Faraji et al., 2015; Naqvi et al., 2013, Lawrence, 2001) due to the low growth need strength of employees. As it has been found that employees with low growth need strength might perceive the job opportunity as an extra obligation and burden and feel that the jobs with skill variety are beyond their competencies resulting in less commitment (Sadono, 2016). The insignificant results related to skill variety in this study can be linked with growth need strength of employees that was found low. However according to Hackman and Oldham (1974) job characteristics model a job with high motivating potential should possess at least one of the three job dimensions (skill variety, task identity and task significance) to enhance the psychological state that influences the employees’ feelings of meaningfulness towards their jobs. So even though skill variety was not found significant in this study it didn’t reduce the meaningfulness of the work.

Besides the job characteristics dimensions the moderating effect of growth need strength was examined and the results indicated that the growth need strength of the employees was low and didn’t moderate the job characteristics and organizational commitment relationship in Nepali organizational context. In order to establish the moderating effect of growth need strength it needs to be examined in light of the growth opportunities that the employees are given in their job using a growth need and growth opportunity model and the growth opportunity cannot be captured using a cross-sectional approach (Graen et al., 1986; Ferris &Gilmore, 1985) hence this can be the reason behind not being able to establish the moderating effect of growth need strength. However the insignificant moderating effect was in line with few previously conducted studies (Pinder, 1984; Aloysius, 2011; Jelstad, 2005; Tiegs et al., 1992; Schuler, 1977; Pokorney, Gilmore & Beehr, 1980). Though low growth need strength was found in this study it had a positive effect on the commitment level of employees, as it has been found that employees with low growth need strength can respond positively and favorably towards job scope and work outcomes (Mowday, Porter & Steers, 1982). Thus the results were in the intended direction, however future research work needs to be conducted by including the psychological factors and other moderating variables as identified by Hackman and Oldham (1975) to increase the utility of the job characteristics model.
Practical Implications

In this study the core job characteristic dimensions i.e. task identity, task significance, autonomy and feedback were found to have a positive effect on commitment of employees. The practitioners can bring changes in the job by combining multiple tasks to produce a whole task to achieve positive work outcomes, as the changes in the technology demand increase in task identity (Cappelli, Bassi, Katz, Knoke, Osterman & Useem, 1997). Looking at the positive effect of task significance on organizational commitment the practitioners can focus on creating jobs with high task significance, as the changes in the work nature demand more interdependencies among the members both within and outside the organization and by giving employees more authority and responsibility across organizational levels can positively influence the perceptions of employees (Hackman & Oldham, 1975). By increasing the level of autonomy in the jobs, the employees’ commitment level can be increased, as this empowers the employees to develop new skills and they are ready to take responsibilities (Tim & Bakker, 2010) and the study results further confirm this proposition. Looking at the positive effect of feedback on organizational commitment the practitioners should focus on providing timely feedback to employees so that the employees can improvise their work on a continuous basis; improve productivity; perform better; achieve goals on time; reduce stress (Hutchins, 2019; Abo-Alhol, Ismail, Sapuan and Hamdan, 2006; Latham & Locke, 2002; Ashford & Black, 1996; Parker & Wall, 1998; Parker, 2003). Thus in practical terms jobs can be enriched by bringing changes in the characteristics of the jobs further enhancing the level of motivation and commitment of employees.

Limitations and Future Research Implications

This study has positively contributed to the literature of job characteristics but have certain limitations that provides ground for further researchers to critically examine the moderating effect of growth need strength by including other moderating variables i.e. knowledge and skills of individuals and context satisfaction. Besides, future research may also consider other psychological factors (i.e. experienced meaningfulness of the job, experienced responsibility for the job outcomes and knowledge of results) identified as mediators in the job characteristic model (Hackman & Oldham, 1975). Hence including all the variables as mentioned in the model would give a better understanding of the relationships between job characteristics dimensions and work and personal outcomes. Second limitation of this study is that it only selected IT employees from few urban districts of Nepal i.e. Kathmandu, Bhaktapur and Lalitpur. In future research including jobs from different regions; different business sectors; different socio-cultural and economic context and jobs with more complexity and heterogeneity may yield different results. This would further help understand the perception of employees from different context regarding their needs related to the core job dimensions and accordingly changes can be made to make the jobs more desirable and yield positive work outcomes.

Third limitation is the study design that was cross-sectional in nature i.e. data was collected at one point of time so the causal relationship could not be inferred in this study (Sekaran, 2003). So conducting future research using a longitudinal research design would help understand the changes in the relationship between the variables and identify the direction of causality and the effect of different job complexities and growth opportunities would further aid the study and is confirmed in few studies (Ferris & Gilmore, 1985). The fourth limitation is the usage of self-reported measures due to which the issue of self-report biasness cannot be ignored. Hence in future research collecting data from multiple sources (managers/supervisors) the issue of self-reported biasness can be mitigated. Besides this the
problem of common method variance is quite common in self-administered survey (Conway & Lance, 2010; Lindell & Whitney, 2001) and cross-sectional studies (Bonder, 2006; Wosczynski & Whitman, 2004) however in this study the issue of common method variance was not examined adding it as the fifth study limitation. Hence future researchers can use Harman’s single factor test to diagnose the problem of common method variance (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Lastly this study used a quantitative approach and collected data using closed-ended questionnaire that made difficult to understand the perception of employees, hence further using a mixed-method approach would help understand the complex research questions; examine the complexity of the social phenomenon and address both knowledge generation and knowledge verification in single study (Teddlie & Tashakkori, 2009). Thus keeping the research gaps of this study in mind future researchers can take a more comprehensive approach to understand the relationship between job characteristics dimensions and work related outcomes.

References
Abo-Alhol, T. R., Ismail, M. Y., Sapuan, S. M., & Hamdan, M. M. (2006). Effects of quality circle participation on employee perception and attitude in five Malaysian companies.
Agarwal, S., & Ramaswami, S. N. (1993). Affective organizational commitment of salespeople: An expanded model. The Journal of Personal Selling and Sales Management, 13(2), 49-70.
Ahmad, A. (2017). The relationship among job characteristics, organizational commitment and employee turnover intentions: A reciprocation perspective. Journal of Work-Applied Management, 10(1), 74-92.
Allan, B. A., Duffy, R. D., & Collisson, B. (2018). Helping others increases meaningful work: Evidence from three experiments. Journal of Counseling Psychology, 65(2), 155.
Allan, B. A., Autin, K. L., & Duffy, R. D. (2014). Examining social class and work meaning within the psychology of working framework. Journal of Career Assessment, 22(4), 543-561.
Ali, S. A. M., Said, N. A., Abd Kader, S. F., Ab Latif, D. S., & Munap, R. (2014). Hackman and Oldham's job characteristics model to job satisfaction. Procedia-Social and Behavioral Sciences, 129, 46-52.
Aloysius, S. M. (2011). The moderating effect of employees growth need strength on the relationship between job characteristics and job satisfaction. Paper presented at University of Jaffna.
Amakiri, D. S., & Luke, G. R. (2015). Job design and employee absenteeism: A case study of some government parastatals in Nigeria. International Journal of secondary education, 3(6), 67-71.
Ashford, S. J., & Black, J. S. (1996). Proactivity during organizational entry: The role of desire for control. Journal of Applied psychology, 81(2), 199.
Banks, D. L. (2006). Relationship between organizational commitment, core job characteristics and organizational citizenship behaviors in United States Airforce organisations (Unpublished master's thesis). Department of the Air Force, Air University, Ohio.
Bodner, T. E. (2006). Designs, participants, and measurement methods in psychological research. Canadian Psychology/Psychologie canadienne, 47(4), 263.
Cappelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P., & Useem, M. (1997). Change at work. Oxford University Press on Demand.
Choge, P. J., Chepkiyeng, F., & Chelimo, K. K. (2014). Effects of task identity on employee motivation: A survey of Eldoret Polytechnic, Kenya. European Journal of Business and Management, 6(33), 72-78.
Choudhary, N., Kumar, R., & Philip, P. J. (2015). Leadership effectiveness, organizational citizenship behavior and task performance: The role of job characteristics at the work place. *IJABER, 13*(5), 3433-3448.

Cohen, A. (1996). On the discriminant validity of the Meyer and Allen measure of organizational commitment: How does it fit with the work commitment construct?. *Educational and psychological measurement, 56*(3), 494-503.

Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Lawrence Erlbaum Associates.

Conway, J. M., & Lance, C. E. (2010). What reviewers should expect from authors regarding common method bias in organizational research. *Journal of Business and Psychology, 25*(3), 325-334.

DeConinck, J., & Bachmann, D. (2005). An analysis of turnover among retail buyers. *Journal of Business Research, 58*(7), 874-882.

Djastuti, I. (2010). The influence of job characteristics on job satisfaction, organizational commitment and managerial performance: A study on construction companies in Central Java. *Journal of Management Business, 3*(2), 145-166.

Elsbach, K. D., & Hargadon, A. B. (2006). Enhancing creativity through “mindless” work: A framework of workday design. *Organization science, 17*(4), 470-483.

Faraji, O., Ramazani, A. A., Hediaiati, P., Aliabadi, A., Elhamirad, S., & Valiee, S. (2015). Relationship between job characteristics and organizational commitment: A descriptive analytical study. *Iranian Red Crescent Medical Journal, 17*(11), 1-6.

Ferris, G. R., & Gilmore, D. C. (1985). A methodological note on job complexity indexes. *Journal of Applied Psychology, 70*(1), 225.

Gautam, T., Van Dick, R., Wagner, U., Upadhyay, N., & Davis, A. J. (2005). Organizational citizenship behavior and organizational commitment in Nepal. *Asian journal of social psychology, 8*(3), 305-314.

Gautam, T., Dick, R. & Wagner, U. (2001). Organizational commitment in Nepalese Settings. *Asian Journal of Social Psychology, 4*, 239–248. doi:10.1111/1467-839X.00088

Ghosh, S., & Swamy, D. R. (2014). A literature review on organizational commitment: A comprehensive summary. *International Journal of Engineering Research and Applications, 4*(12), 4-14.

Grant, A. M. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of applied psychology, 93*(1), 108.

Graen, G. B., Scandura, T. A., & Graen, M. R. (1986). A field experimental test of the moderating effects of growth need strength on productivity. *Journal of Applied Psychology, 71*(3), 484-491. doi: 10.1037/0021-9010.71.3.484

Guise, M. T. (1988). *Test of Hackman and Oldham's Job characteristic model in a post-secondary educational setting* (Unpublished master's thesis). Brock University, Ontario.

Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology, 55*(3), 259-286.

Hackman, J. R., & Oldham, G. R. (1974). *The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects*. Department of Administrative Sciences, Yale University.

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of the Applied Psychology, 60*(2), 159-170.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.
Hair Jr, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). SEM: An introduction. *Multivariate data analysis: A global perspective*, 5(6), 629-686.

Harvey, R. J., Billings, R. S., & Nilan, K. J. (1985). Confirmatory factor analysis of the Job Diagnostic Survey: Good news and bad news. *Journal of applied psychology*, 70(3), 461.

Hassan, M. A., & Samah, B. A. Job Dimension and Growth Need Strength of Information System personnel as Predictors of Quality of Working Life. Guna Seelan Rethinam Maimunah Ismail.

Haq, M. A., Jindong, Y., Hussain, N., & Anjum, Z. Z. (2014). Factors affecting organizational commitment of lecturers. *Journal of Business and Management*, 16(4), 18-24.

Herman, C. M. (1988). *The influence of job characteristics on organizational commitment to job satisfaction of food service employees* (Unpublished master's thesis). University of Tennessee, Knoxville.

Hofstede, G. (1980). *Culture and organizations*. *International Studies of Management & Organization*, 10(4), 15-41.

Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meat-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332-1356.

Hutchins, D. (2019). *Quality Beyond Borders: Dantotsu Or how to Achieve Best in Business*. Routledge.

Idaszak, J. R., Bottom, W. P., & Drasgow, F. (1988). A test of the measurement equivalence of the revised Job Diagnostic Survey: Past problems and current solutions. *Journal of Applied Psychology*, 73(4), 647.

Idaszak, J. R., & Drasgow, F. (1987). A revision of the job diagnostic survey: Elimination of a measurement artifact. *Journal of Applied Psychology*, 72(1), 69-74.

Jelstad, B. (2005). *Job characteristics and its outcomes: A comparative work design study of non-profit and profit organizations*. Paper-presentasjon under, The 18th Scandinavian Academy of Management (NFF), Aarhus, Denmark.

Kariuki, N., & Makori, M. (2015). Role of job design on employee engagement in private universities in Kenya: a case of Presbyterian university of East Africa. *The Strategic Journal of Business and Change Management*, 2(60), 365-385.

Khayat, O. M., & Gheitani, A. (2015). Study of the relation between job characteristics (task significance and task identity) and organizational learning. *Research Journal of Fisheries and Hydrobiology*, 10(13), 88-94.

Konya, V., Matic, D., & Pavlovic, J. (2016). The influence of demographics, job characteristics and characteristics of organisations on employee commitment. *Acta Polytechnica Hungarica*, 13(3), 119-138.

Latham, G. P., Locke, E. A., & Fassina, N. E. (2002). The high performance cycle: Standing the test of time. *Psychological management of individual performance*, 201-228.

Lawrence, R. M. (2001). *The application of Hackman and Oldham's job characteristic model to perceptions community music school faculty have towards their job* (Unpublished doctoral dissertation). University of North Texas, Texas.

Lin, J. T. P., & Ping, N. C. L. (2016). Perceived job autonomy and employee engagement as predictors of organizational commitment. *Undergraduate Journal of Psychology*, 29(1), 1-to.

Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of applied psychology*, 86(1), 114.

Loher, B. T., Noe, R. A., Moeller, N. L., & Fitzgerald, M. P. (1985). A meta-analysis of the relation of job characteristics to job satisfaction. *Journal of Applied Psychology*, 70(2), 280-289.
Luneneburg, F. C. (2011). Motivating by enriching jobs to make them more interesting and challenging. *International Journal of Management, Business and Administration, 15*(1), 1-11.

Lynton, R. P., & Pareek, U. (2000). The human development handbook.

Magaji, N. (2015). Effect of job enrichment on employee motivation in selected private universities in South-West Nigeria. *Researchers World, 6*(4), 67.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*(2), 171-194.

Mattson, J. (1994). Improving service quality in person-to-person encounters. *The Service Industries Journal, 14*(1), 45-61.

Merojob. (2016, July 31). Challenges in employee retention in Nepal. *Search Jobs in Nepal – Job Vacancies in Nepal* – *merojob. [https://merojob.com/kurakani/post/detail/challenges-in-employee-retention-in-nepal/](https://merojob.com/kurakani/post/detail/challenges-in-employee-retention-in-nepal/)*

Meyer, P. J., & Allen, J. N. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*, 61–89.

Meyer, P. J., & Herscovitch, L. (2001). Commitment in the Workplace: Toward A General Model. *Human Resource Management Review, 11*, 299–326.

Mone, E. M., London, M., & Mone, E. M. (2010). Employee engagement through effective performance management: A practical guide for managers. Routledge.

Morgeson, F. P., Garza, A. S., & Campion, M. A. (2012). Work design. *Handbook of Psychology, Second Edition, 12.*

Moseghrad, A. M., Ferlie, E., & Rosenberg, D. (2008). A Study of the Relationship Between Job Satisfaction, Organizational Commitment and Turnover Intention Among Hospital Employees. *Health Service Management Research, 21 (4), 211-227*

Mowday, R. T., Porter, L. M., & Steers, R. M. (1982). *Employee-organizational linkage.* New York: Academic Press.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1982). *The measurement of organizational commitment.* University of Oregon.

Mowday, R. T., Steers, R. M., & Porter, L. M. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224–247.

Nyabundi, G. O., & Kagiri, A. (2016). Effects of task identity on the performance of employees of the Supreme Court of Kenya. *International Journal of Management and Commerce Innovations, 4*(2), 921-925

Naqvi, M. R., Ishtiaq, M., Kanwal, N., & Ali, M. (2013). Impact of job autonomy on organizational commitment and job satisfaction: The moderating role of organizational culture in fast food sector of Pakistan. *International Journal of Business and Management, 8*(17), 92-102.

Nicholson, N. (2010). The design of work—an evolutionary perspective. *Journal of Organizational Behavior, 31*(2/3), 422-431.

Nguyen, T. N., Mai, K. N., & Nguyen, P. V. (2014). Factors affecting employees’ organizational commitment: A study of banking staff in Ho Chi Minh City, Vietnam. *Journal of Advanced Management Science, 2*(1), 7-11.

Nzewi, H. N., Chiekezie, O. M., Ekene, O., Raphael, A. E., & Ebuka, A. A. (2017). Job enrichment and employee commitment in selected brewing firms in Anambra State. *Saudi Journal of Business and Management Studies, 2*, 330-337.

Obi-Nwosu, H., Chiamaka, J. A., &Tochukwu, O. (2013). Job characteristics as predictors of organizational commitment among private sector workers in Anambra state, Nigeria. *International Journal of Social Science, 3*(2), 482-491.
Ozturk, A. B., Hancer, M., & Im, J. Y. (2014). Job characteristics, job satisfaction and organizational commitment for hotel workers in Turkey. *Journal of Hospitality Marketing and Management, 23*(3), 294-313.

Parker, S. K. (2003). Longitudinal effects of lean production on employee outcomes and the mediating role of work characteristics. *Journal of applied psychology, 88*(4), 620.

Parker, S. K., Wall, T. D., & Cordery, J. L. (2001). Future work design research and practice: Towards an elaborated model of work design. *Journal of occupational and organizational psychology, 74*(4), 413-440.

Parker, S. K., Wall, T. D., & Jackson, P. R. (1997). “That's not my job”: Developing flexible employee work orientations. *Academy of management journal, 40*(4), 899-929.

Parker, S. K., & Wall, T. D. (1998). *Job and work design: Organizing work to promote well-being and effectiveness* (Vol. 4). Sage Publications.

Pee, L. G. (2011). The effects of job design on employees’ knowledge contribution to electronic repositories.

Pinder, C. C. (1984). *Work motivation: Theory, issues, and applications.* Scott Foresman & Co.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology, 88*(5), 879.

Pokorney, J. J., Gilmore, D. C., & Beehr, T. A. (1980). Job diagnostic survey dimensions: Moderating effect of growth needs and correspondence with dimensions of job rating form. *Organizational Behavior and Human Performance, 26*, 222-237.

Rousseau, D. M., & Fried, Y. (2001). Location, location, location: Contextualizing organizational research. *Journal of organizational behavior, 1*-13.

Sadler-Smith, E., El-Kot, G., & Leat, M. (2003). Differentiating work autonomy facets in a non-western context. *Journal of Organization Behavior, 24*(6), 709-810.

Sadono, N. S. (2016). *Job characteristics and affective commitment: the moderation effect of growth need strength: a case study of Directorate General of Customs and Excise in Indonesia* (Doctoral dissertation).

Satya, J. (2018, November 13). List of 220+IT companies in Nepal (Software companies in Nepal). *Digitalample.com, https://digitalample.com/it.companies.in.nepal.software.companies.in* nepal

Schuler, R. S. (1977). Moderating effects of job involvement and growth need strength on task-outcome relationship. *Journal of Business Research, 5*(4), 293-309.

Sekaran, U. (2003). *Research methods for business: A skill-building approach* (4th ed.). New York:John Wiley & Sons.

Shanthakumary. (1998). *Job characteristics and job satisfaction* (Unpublished master's thesis). Colombo, Sri Lanka.

Sharma, M. P. (1997). Organisational commitment and its determinants. *Indian Journal of Industrial Relations, 33*(2), 193-210.

Shrestha, D. (2010). Consequences of gender and job characteristics with normative commitment. *The Journal of Nepalese Business Studies, 7*(1), 100-114.

Sisodia, S., & Das, I. (2013). Effect of job autonomy upon organizational commitment of employees at different hierarchical levels. *Psychological Thought, 6*(2), 241-251.

Staw, B. M., & Boettger, R. D. (1990). Task revision: A neglected form of work performance. *Academy of Management Journal, 33*(3), 534-559.

Stinglhamber, F., & Vandenberghe, C. (2003). Organizations and supervisors as sources of support and
targets of commitment: A longitudinal study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 24*(3), 251-270.

Steers, R.M., (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly, 22*(1), 46 - 56.

Steers, R.M., & Spencer, D.G. (1977). The role of achievement motivation in job design. *Journal of Applied Psychology, 62*(4), 472-479.

Steinhaus, C. S., & Perry, J. L. (1996). Organizational Commitment: Does Sector Matter? *Public Productivity and Management Review, 19*(3), 278-288.

Taghavi, S., & Gholami, A. (2015). The Effect of Job Characteristics on Organizational Commitment of Oil Industry Employees (Case Study: Employees of Offshore Oil Company in Lavan Island), Taghavi et al. *Int. J. Rev. Life. Sci, 5*(10), 2015.

Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Sage.

Thirunavukarasu, S., & Sritharan, R. (2016). Influence of job characteristics on organizational commitment among private sectors, Cuddalore. *International Journal of Engineering and Management Research, 6*(3), 2394-6962.

Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology, 36*(2), 1-9.

Thompson, H. B., & Werner, J. M. (1997). The impact of role conflict/facilitation on core and discretionary behaviors: Testing a mediated model. *Journal of Management, 23*, 583-601.

Tummers, L., Steijn, B., Nevicka, B., & Heerema, M. (2018). The effects of leadership and job autonomy on vitality: Survey and experimental evidence. *Review of public personnel administration, 38*(3), 355-377.

Tiegs, R.B., Tetrick, L.E. & Fried, Y. (1992). Growth need strength and context satisfaction and moderators of the relations of the Job Characteristics Model. *Journal of Management, 18*, 575-593.

Umukoro, J. E., & Egwakhe, A. J. (2019). Job-Characteristics Dimensions and Employee Continuance Commitment. *Global Journal of Management And Business Research.*

Vandenberg, R. J., & Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management, 18*(1), 153-167.

Volmer, J., Spurk, D., & Niessen, C. (2012). Leader–member exchange (LMX), job autonomy, and creative work involvement. *The Leadership Quarterly, 23*(3), 456-465.

Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of management review, 26*(2), 179-201.

Woszczynski, A. B., & Whitman, M. E. (2004). The problem of common method variance in IS research. In *The handbook of information systems research* (pp. 66-78). Igi Global.