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Exploring the relationship between Job autonomy and employee engagement in turbulent times: The role of autonomous motivation

Abay Kidane Gebregiorgis^{(a)*} Zhao Xuefeng^(b)

^(a)Department of management, Huazhong University of Science and Technology, Wuhan, China

^(b)Management Science and Information Management, Huazhong University of Science and Technology, Wuhan, China

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ABSTRACT

This study aims to develop and test a holistic model that depicts and examines the relationships among job autonomy, its drivers, as well as autonomous motivation and influence employee engagement. This research is among the first works to deal with such a complex framework that considers the interrelationships among numerous constructs and their effects on employee engagement. A questionnaire was designed to measure the influence of Job autonomy and its drivers on employee engagement while taking into consideration the impact of turbulent times and organizational commitment on these relationships. Data collected from a sample of 317 respondents working in Ethiopian commercial banks were used to test the proposed relationships. The relationships were analyzed using partial least squares structural equation modeling (PLS-SEM) using the Smart PLS 3 software and SPSS version 26. PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in a number of research studies. The proposed model proved to be fit. The findings of this study suggest that creating job autonomy and assuring autonomous motivation, may help companies gain employee engagement and enhance their performance. The adoption and implementation of such activities are driven by method, criteria, and scheduling autonomy. The successful implementation of these practices requires considering the level of turbulent environment and organizational tenure. The hypotheses were supported, and implications were discussed.

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Introduction

The twenty-first century workplace has become a more complex environment. Various economies are now highly integrated, resulting in more competitive work situations. With the current trends in the workplace, Employee Engagement can play an important role in increasing organizational effectiveness through employee behavior (Chung & Jeon, 2020). According to (Lussier & Hendon, 2019) globalization, rapid technological and communications advancements, continuous political instability, and changes in workforce demographics are among the factors which increased competition in different industries. Because of this, human resource flexibility is seen as beneficial for businesses to adapt to the constantly changing environment (Ocampo et al., 2018).

In this highly competitive business environment, employees are considered a source of competitive advantage. Because of this, researchers have looked into Job Autonomy effect on Employee Engagement. (Ocampo et al., 2018), for example, declared that superior organizational performance depends on how workers exert effort in performing them in-role and extra-role requirements. In connection with this, a strong line of research agrees that HR practices are essential since they signal to employees that the organization values them, and this gives rise to a feeling of obligation among employees to perform their duties well for the benefit of the company (Fu, 2013; Westover, 2014; Deutscher et al., 2016; Konsolas & Konsolas, 2018; Hamid et al., 2019).

The present study therefore systematically reviews prior empirical research and the theoretical anchors of Job Autonomy and Employee Engagement in the context of turbulent times. In doing so, it makes a number of important contributions to both the academic literature and to practice. First, by examining different effects of three types of Job Autonomy on Employee Engagement, this study sheds further light on the relative effects and interrelations of the three Job Autonomy dimensions, and answers the question of which dimension plays a more significant role on Employee Engagement (Lin & Ping, 2016).

* Corresponding author. ORCID ID: 0000-0002-4605-9847

Second, the researcher focus on Autonomous motivation due to its pivotal role in explaining Employee Engagement (e.g. (Saks,2006; Field & Buitendach,2011; Ariani,2013; Shao et al.,2017), especially in the Ethiopian context where reciprocity values are strongly endorsed (Kosa et al.,2018) and that Employee Engagement is relationship-based that signifies a strong personal bond towards the organization (Meyer & Allen, 1991; Raymond & Mjoli, 2013). Third, in addition to developing a nuanced explanation for how Job Autonomy affects employees' Engagement, the researcher also explores the boundary conditions under which the effects of Job Autonomy can be either strengthened or weakened. Employees may form different expectations of their Job as their tenure increases. Hence, organizational tenure may serve as a moderating factor affecting how employees perceive and react to different dimensions of Job Autonomy. Finally, this paper contributes to the literature by presenting a study of Job Autonomy and Employee Engagement that focuses on turbulent times. Hence, this study tries to measure the strength of aforementioned relationship in the context of Turbulent times. Further, the researcher choice of commercial banks extends the generalizability of the research by giving a real time analysis on the context of the most rigid working environment.

Last but not least, in the light of the fierce competition for talented employees, the financial sector is typically associated with high levels of employee mobility and turnover. Given employees' turnover poses a potential threat to the risk of losing invaluable and tacit knowledge (Ku, Liao, & Hsing, 2005; Yang & Jiang, 2007; Quratulain et al., 2018), how commercial banks develop effective Job Autonomy to strengthen their Autonomous motivation, and in turn, Employee Engagement should warrant more attention.

In particular, the paper addresses the following questions:

- i. To what extent Method, scheduling, and criteria autonomy and autonomous motivation influence physical, emotional and cognitive engagement?
- ii. To what extent organizational tenure and turbulent times influence the aforementioned relationships?

Data collected from a sample of 317 respondents working in Ethiopian commercial banks, were used to test the model and answer the research questions. The relationships were analyzed using partial least squares structural equation modeling (PLS-SEM) using the Smart PLS 3 software and SPSS version 26. PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in a number of research studies.

The remainder of the paper is organized as follows: In Section 2, previous studies related to this research are reviewed. In addition, the theoretical framework underlying our proposed model is presented, and the hypotheses are derived in Section 2. The research methodology is incorporated in Section 3. Then, data analysis results are presented and discussed in Section 4. Finally, the conclusion, limitations, implications, recommendations and suggestions for future research are given in Section 5.

Literature Review

One of the most famous theories related to employee engagement is Social exchange theory (SET). SET explains responsibilities are created through interactions and between parties who are in state of collective interdependence. According to (Wang, 2015) basic principle of SET is relationship develop overtime in to expectation, trustworthy and mutual commitment as long as both parties accepted by some rules of exchange. The rules of exchange involve mutuality rules so that the movements of one party would lead to reaction by the second party.

According to Kahn's definition, employee feels thankful and keeps themselves more intensely in to job role performance as compensation they receive from their employers (Saks, 2006). It increases the trustworthiness and trusting relationship. Consequently, employees with higher level of engagement are likely to be in good quality relations with their organizations and would likely to report positive behavior and objectives towards employers (Gamble et al., 2015).

On the other hand, when employers become unsuccessful to provide these benefits or resources to workforce, they are more likely to disengage to their job roles. Consequently, the extent to cognitive, emotional and physical resources that an employee need for performance is contingent on economic and socio-emotional resources received from employers (de la Torre-Ruiz et al., 2019).

Job autonomy, Autonomous motivation and Employee engagement

According to Self Determination Theory (SDT), motivation is located on a continuum between a motivation and intrinsic motivation (Lin & Ping, 2016). They have also distinguished regulatory processes that fall on this continuum. People are intrinsically motivated and intrinsically regulated when they do something because they find it interesting and derive spontaneous satisfaction from it; this is inherently autonomous motivation (Shao et al., 2017). Those who experience extrinsic motivation obtain satisfaction from the external consequences of an activity. The Four types of regulatory processes that represent extrinsic motivation are integrated motivation, identified regulation, interjected regulation, and external regulation; all differ in the level of internalization of extrinsic motivation (Fernandes, 2020). It has been shown that in comparison to extrinsic motivation, intrinsic motivation is related to many positive aspects of well-being, such as higher work enjoyment and work engagement (Malinowska et al., 2018), lower level of fatigue and burnout (Rich et al., 2010), lower level of anxiety (Oudeyer et al., 2008), and physical symptoms (Saks, 2006). The function of intrinsic work motivation is emphasized by (Chung & Jeon, 2020), who indicate that it is fundamental for the development of work engagement. The study of (Ocampo et al., 2018) shown that work engaged employees are driven by autonomous motivation (i.e., intrinsic regulation). Taken together, these findings confirm that engaged employees work hard because they genuinely want to.

If environments are supportive of autonomy, (Malinowska et al., 2018) concluded “[...] autonomy support is the most important social-contextual factor for predicting identification and integration, and thus autonomous behavior.” Apparently, job autonomy has a solid base of support in the research. Its role in promoting work engagement has been proven in several studies (Fernandes, 2020). In contrast, the research in relation with autonomous motivation is limited.

Based on the above discussion, the following hypotheses are proposed:

H1. Method, Scheduling and Criteria autonomy positively influence Autonomous motivation.

H2. Autonomous motivation positively influences Employee Engagement.

Job autonomy, Employee Engagement and mediating role of autonomous motivation

According to (Kahn, 1990; Saks, 2006), psychological meaningfulness can be achieved from task characteristics that provide challenging work, variety, allow the use of different skills, personal discretion, and the opportunity to make important contributions. This is based on (Hackman and Oldham, 1980) job characteristics model and in particular, the five core job characteristics (i.e. skill variety, task identity, task significance, autonomy, and feedback). Jobs that are high on the core job characteristics provide individuals with the room and incentive to bring more of themselves into their work or to be more engaged (Kahn, 1992). (May et al., 2004) found that job enrichment was positively related to meaningfulness and meaningfulness mediated the relationship between job enrichment and engagement.

The workload and control conditions from the (Maslach et al., 2001; Saridakis et al., 2020) model also suggest the importance of job characteristics for engagement. In fact, job characteristics, especially feedback and autonomy, have been consistently related to burnout (Maslach et al., 2001). From a SET perspective, one can argue that employees who are provided with enriched and challenging jobs will feel obliged to respond with higher levels of engagement. In engagement, “people employ and express themselves physically, cognitively and emotionally during role performance”. In other words, “individual involvement and satisfaction as well as enthusiasm for work” (Andrew & Sofian, 2012). Therefore, according to definition, engagement is employee level of obligation and participation for organizational sake and its value. Job disengagement is the “uncoupling of selves from work roles; in disengagement, employees withdraw and defend themselves physically, cognitively and emotionally during role performances” (Andrew & Sofian, 2012).

Employee positive engagement is a win-win approach because employees know how to identify organizational success and become successful in their contribution. Many scholars conclude, that it is an important factor for employee’s positive contribution towards organizational success and works as a facilitator to improve employee’s attitude, performance and objective to develop way of performance (Andrew, 2012; Mohanty & Pradhan, 2019). High number of engaged workers help an organization attracting more creative employees, whereas, disengaged employees can lead to worsen production, higher turnover, recruitment and training cost. Disengagement decrease productivity and profitability ratio (Leitão & Devezas, 2018). Engagement in banking jobs enables employees to make business operations successful, as it runs with the mutual commitment of organizations and employees (Rosario Núñez et al., 2020). When banking employees will engage, they will use their potential to drive high performance (provide better services and attract maximum customers). Engaged employees are more dedicated and helping to maximize banking productivity. They are more likely to consider themselves as an employer.

Based on the above discussion, the following hypotheses are proposed:

H3. Job autonomy positively influence Employee engagement.

H4. Method, Scheduling and Criteria autonomy positively influence Employee engagement, through autonomous motivation.

Organizational Tenure as a moderator

Organizational tenure defined as comprising personal, educational, and professional experiences that increase an employee’s value at work and his or her career success (Judge, Cable, Boudreau, & Bretz, 1995; Nafukho et al., 2004; Beus et al., 2010). More specifically, human capital theory suggests that over the course of their career development, employees acquire human capital by gaining job knowledge, skills, abilities, and experiences (Myers, 2004; Wayne, 1999; Beus et al., 2010). This acquired human capital is then valued and rewarded by organizations, such that it enables employees to obtain better jobs as well as to be successful and excel in their positions (Beus et al., 2010).

French business executive Henri Fayol developed the principle of stability of tenure of personnel as part of his fourteen administrative management principles. Stability of tenure of personnel is a principle stating that in order for an organization to run smoothly, personnel (especially managerial personnel) must not frequently enter and exit the organization (Steffens et al., 2014). Consequently, an organization must take steps to obtain as much stability in its management and workforce as possible.

The survival and success of an organization hinges on the performance of its members. An important aspect that determines employees’ performance at work is their organizational tenure (i.e., the time that an individual has spent in an organization) because employees generally display higher levels of performance as they gain organizational tenure (Gamble et al., 2015).

With accumulating organizational tenure, employees (a) become increasingly familiar with their role and the organizational norms, culture, and goals (Chatman, 1991; Barney & Clark, 2007); (b) gain organization-specific knowledge, skills, and abilities (Tesluk & Jacobs, 1998; Turner & KalMan, 2014); and (c) acquire social acceptance, role clarity, and self-efficacy (Bauer, 2007). Acquiring organization-specific human capital may assist employees in learning to perform their organizational roles and responsibilities, to avoid or overcome obstacles, and to get to know the colleagues they see as important and valuable and find worthwhile collaborating with (Humphrey, 2009). It is for these reasons that organizational tenure has been argued to influence employees' ability to perform (Nonaka, 1994; Tesluk & Jacobs, 1998; Song & Jing, 2017). However, this positive relationship is likely to change with increasing levels of organizational tenure (Hofmann, 1993; Ploy hart & Hakel, 1998; Sturman, 2007). Indeed, empirical evidence shows that the rate of acquiring more tenure-related resources tends to be greater in employees who are in early, rather than advanced, stages of organizational membership (Sturman, 2003; Feldman, 2010; Beus et al., 2010).

Turbulent times as a moderator

Among the characteristics that distinguish turbulence from other critical situations are its large and uncontrollable scale, high velocity and fluctuation, its cascading effect and unclear patterns of evolution, leading to a chaotic situation (Prouska et al., 2016). Turbulence, broadly defined, "is a measure of change that occurs in the factors or components of an organization's environment. At one end of a continuum of change there is a static environmental state (no change); at the other end, a turbulent or dynamic state where all factors are in constant flux." (Smart and Vertinsky, 1984; Jelassi, 2017). According to (Emery and Trist, 1965; Roberto, 2020) this particular environment is characterized by dynamic processes, which can create significant variances for the relevant organizations. This dynamism is not only as a result of competitive interactions. Other factors, such as the interdependence between the economic and other facets of the society, now contribute to dynamism and hence turbulence. According to (Ansoff, 1984; Jelassi, 2017) the degree of environmental turbulence is dependent upon three characteristics: - if familiarity of events is determined to be 'discontinuous and novel', the rapidity of change to be 'shorter than the firm's response', and the future to have 'unpredictable surprises', then the firm is operating in a turbulent environment (Jelassi, 2017).

The amount of environmental turbulence is closely related to the degree of uncertainty facing a firm. An increased level of turbulence in the external environment of a business implies greater uncertainty on the part of the organizations as to how they should respond appropriately (Wulf & Meißner, 2010; Eppler, 2020).

Based on the above discussion, the following hypotheses are proposed:

H5. Turbulent times and organizational commitment moderate the relationships in H1 to H4.

Figure 1: The conceptual model.

Research and Methodology

Survey and data collection

This study employs correlational design to examine the relationships between Job autonomy and employee engagement. It also explores the mediation role of autonomous motivation on aforementioned relationship. In addition, this study aims to examine the influence of organizational tenure and turbulent times on these relationships.

To examine the conceptual model and test these relationships, a survey instrument was designed, and measurement scales were developed. The draft questionnaire was constructed and content validity of the scale was checked and improved with the help of five

academics and three experts from the industry. A revised version questionnaire was finalized and then used to test the proposed hypotheses. The measurement scales in the used questionnaire consisted of items representing respondents' attitudes and opinions about Job autonomy regarding turbulent times, the related factors as well as employee engagement, autonomous motivation and their organizational tenure. All items measuring these variables and the scales are discussed below. To conduct the study, the target population was identified. It consisted of managers and customer service managers, at branch level, working in Ethiopian commercial banks. These managers were knowledgeable about the adopted HR practices, managerial factors as well as the performance of the organization. The sample is determined by using Yamane's (1967) formula which is adopted by (AlAmeri, 2017) and make a comparison with Glenn (1992) published tables which are recommended by Singh, Ajay S; et. Al (2014). 362 questionnaires were distributed with a cover letter that ensured the anonymity of answers and that included a brief explanation of the research. Stressing assurance of anonymity in the cover letter of the questionnaire aimed at minimizing the social desirability bias arising in survey research (Roxas and Lindsay, 2012). Out of the returned questionnaires, 317 were found usable, yielding a response rate of 87.6%. Non-response bias was checked by contacting 13 non-respondents and asked about the reasons for not participating in the study. Lack of knowledge of the various constructs and items in the questionnaire was identified as the main reason.

Control variables

A number of demographic factors that have often been examined in Employee engagement research (e.g., Randall 1993; Gregersen and Black 1992) were included as control variables in this study. The demographic variables of gender, age, education and positional tenure have been found to be related to Employee engagement. For example, a review by Madison et al. (2012) noted that significant relationships have been identified between engagement and both age and education (see Brimeyer, Perrucci, & Wadsworth, 2010; Glisson & Durick, 1998) while positive associations have been established between tenure and engagement (Meyer et al., 2002). In addition, the meta-analysis conducted by Mathieu and Zajac (1990) found that women were significantly more engaged to their organization, compared to their male counterparts. The aim of this expanded list is to be able to reduce the bias in our results, which may potentially emanate from these confounding variables.

Measures

All of the constructs were measured with multiple-scale items. In all, forty-one question items, excluding items that asked about demographics, were used and covered all variables discussed in the model. Job autonomy was measured using the Breaugh's Work Autonomy Scale (Breaugh James A, 1999) which was adapted by (Lin & Ping, 2016) with 9 items on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The scale measured job autonomy in three facets; work method (e.g. I am able to choose the way to go about my job, the procedures to utilize), work schedule (e.g. My job is such that I can decide when to do particular work activities), and work criteria (e.g. I have some control over what I am supposed to accomplish, what my supervisor sees as my job objectives). The scale was selected due to its strong reliability and validity (Lin & Ping, 2016) as well as its ability to measure comprehensive aspects of job autonomy. Employee engagement was measured using the Job Engagement Scale (Lin & Ping, 2016) with 18 items on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The scale was selected due to its strong reliability and its ability to measure all the three components of engagement, namely the physical (e.g. I exert my full effort to my job), emotional (e.g. I feel energetic at my job), and cognitive aspects (e.g. At work, I pay a lot of attention to my job), through easily understandable items. Autonomous motivation was assessed with the Situational Intrinsic Motivation Scale (SIMS) developed by (Guay et al., 2000) and adapted by (Malinowska et al., 2018). The total scale consists of 16 items. But, for this study the researchers use only eight of them as per the model and delimitation of the study. The participants' task was to measure on the level of statements' conformity with their beliefs about the reason why he/she is currently engaged in work activity. The scale includes 2 subscales, each measured with 4 items: intrinsic motivation (e.g. Because I think that this activity is good for me,") and integrated regulation (e.g. Because I believe that this activity is important for me).

To test the moderating roles of organizational tenure on the influences of Job Autonomy on Employee engagement, this study used a multi-group approach based on a test suggested by (Jöreskog and Sörbom, 1993). Following the process of (Jang, Kim, and Lee, 2015) work to verify the moderating effect, the samples were divide into two groups (i.e., high and low) based on the respondents' mean scores on years of work experience (mean=5.34).

Turbulent times defined as the time of uncertainty and unpredictability in an industrial environment, which included market and technological turbulence (Jaworski and Kohli, 1993). Market turbulence is the rate of change in the composition of clients and their preferences (Jaworski and Kohli, 1993), while technological turbulence reflects the extent to which the technology in an industry is in a state of flux (Wang et al., 2020). The questions for Turbulent times were adapted from (Jaworski and Kohli, 1993) and (Wang et al., 2020), which are consistent with market and technological turbulence.

Note that the items of the subscales listed in Tables 1–4 along with the results of the construct loadings and reliability indicate that the scale and its subscale items have high loadings (> 0.5), and high reliability (CR > 0.7).

Result and Discussion

The relationships in Fig. 1 were analyzed using partial least squares structural equation modeling (PLS-SEM) using the Smart PLS 3 software. PLS is a well-established technique for estimating path coefficients in structural models and has been widely used in a

number of research studies. The PLS technique has become increasingly popular in marketing and management research more generally in the last decade because of its ability to model latent constructs under conditions of non-normality and small to medium sample sizes (Hair et al., 2013).

The first step in applying the PLS-SEM method is the outer model validation and the second step is the inner model path calculation. Validating the outer model consists of determining the convergent and discriminant validity as well as the reliability of the constructs (Wetzels et al., 2009). Once the model is validated, the inner model is fitted by calculating the path coefficients. The significance of the results is demonstrated through bootstrapping.

To examine the moderating effects, cluster analysis was employed to partition the respondents involved in the study according to their organizational tenure and turbulent times. This technique clusters the respondents into groups based on certain criteria (DeSarbo et al., 1992; Kamakura and Wedel, 2000). Since these latent variables are measured by several indicators, the cluster analysis technique is one of the best grouping method. Once the clusters of respondents were identified, a multi-group analysis was employed to determine the changes in the significance of the path coefficients among the various groups.

Outer model analysis

The unstandardized dataset using reflective scheme for all of the latent variables was employed to examine the model through PLS-SEM using SmartPLS3 software on. This was assessed through factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). Table 1-4 shows that all item loadings exceeded the recommended value of 0.6 (Chin, Peterson, & Brown, 2008). Composite reliability values, which depict the degree to which the construct indicators indicate the latent construct, exceeded the recommended value of 0.7 while average variance extracted, which reflects the overall amount of variance in the indicators accounted for by the latent construct, exceeded the recommended value of 0.5 (Hair et al., 2013).

Discriminant validity was demonstrated by showing that the average shared variance of any construct and its indicators is greater than any of the shared variance with other constructs (Fornell and Larcker, 1981). Table 5 lists below demonstrated this fact since the values on the diagonal are greater than any value in their corresponding rows and columns.

Table 1: Job autonomy

Constructs	Items	Loadings	AVE	CR
Method autonomy (MA)	MA1 I am allowed to decide how to go about getting my job done (the methods to use).	0.946	0.892	0.961
	MA2 I am able to choose the way to go about my job (the procedures to utilize).	0.938		
	MA3 I am free to choose the method(s) to use in carrying out my work.	0.949		
Scheduling autonomy (SA)	SA1 I have control over the scheduling of my work.	0.972	0.92	0.972
	SA2 I have some control over the sequencing of my work activities (when I do what).	0.948		
	SA3 My job is such that I can decide when to do particular work activities.	0.958		
Criteria autonomy (CA)	CA1 My job allows me to modify the normal way we are evaluated so that I can emphasize some aspects of my job and play down others.	0.956	0.912	0.969
	CA2 I am able to modify what my job objectives are (what I am supposed to accomplish).	0.972		
	CA3 I have some control over what I am supposed to accomplish (what my supervisor sees as my job objectives).	0.936		

Table 2: Autonomous motivation

Constructs		Items	Loadings	AVE	CR
Intrinsic motivation	IM1	I engaged in my work because I think it is interesting.	0.977	0.907	0.975
	IM2	I engaged in my work because I think it is pleasant.	0.975		
	IM3	I engaged in my work because it is fun.	0.897		
	IM4	I engaged in my work because I feel good when doing it.	0.958		
Integrated regulation	IR1	I engaged in my work because I am doing it for my own good.	0.936	0.872	0.965
	IR2	I engaged in my work because I think it is good for me.	0.95		
	IR3	I engaged in my work by personal decision.	0.925		
	IR4	I engaged in my work because I believe it is important for me.	0.923		

Table 3: Employee engagement

Constructs		Items	Loadings	AVE	CR
Physical engagement (PE)	PE1	I work with intensity on my job.	0.936	0.919	0.986
	PE2	I exert my full effort to my job.	0.968		
	PE3	I devote a lot of energy to my job.	0.967		
	PE4	I try my hardest to perform well on my job.	0.954		
	PE5	I strive as hard as I can to complete my job.	0.973		
	PE6	I exert a lot of energy on my job.	0.954		
Emotional engagement (EME)	EME1	I am enthusiastic in my job.	0.911	0.877	0.977
	EME2	I feel energetic at my job.	0.933		
	EME3	I am interested in my job.	0.957		
	EME4	I am proud of my job.	0.955		
	EME5	I feel positive about my job.	0.921		
	EME6	I am excited about my job.	0.943		
Cognitive engagement (CE)	CE1	At work, my mind is focused on my job.	0.925	0.89	0.98
	CE2	At work, I pay a lot of attention to my job.	0.96		
	CE3	At work, I focus a great deal of attention on my job.	0.974		
	CE4	At work, I am absorbed by my job.	0.899		
	CE5	At work, I concentrate on my job.	0.939		
	CE6	At work, I devote a lot of attention to my job.	0.962		

Table 4: Turbulent times

Constructs	Items		Loadings	AVE	CR
Turbulent times (TT)	TT1	potential customers’ have a tendency to look for and demand a firm’s technology or products.	0.941	0.839	0.969
	TT2	customers’ preferences changing quite a bit over time.	0.916		
	TT3	There is confirmation from the firm concerning customers’ needs.	0.884		
	TT4	The technology used in product development was changing rapidly.	0.929		
	TT5	The technology in this industry was changing rapidly.	0.92		
	TT6	The technology in this industry was changing rapidly.	0.904		

Table 5: Discriminant validity of the constructs.

	CA	CE	EME	IM	IR	MA	PE	SA	AVE
CA	0.955								0.912
CE	0.872	0.944							0.89
EME	0.89	0.912	0.937						0.877
IM	0.907	0.83	0.905	0.952					0.907
IR	0.868	0.914	0.918	0.875	0.934				0.872
MA	0.911	0.855	0.9	0.873	0.868	0.944			0.892
PE	0.861	0.925	0.876	0.802	0.858	0.82	0.959		0.919
SA	0.922	0.831	0.87	0.885	0.85	0.937	0.829	0.959	0.92

Inner model analysis

The next step of the analysis examined the inner model. First, the tested model R^2 results demonstrated that an acceptable part of the variance of the constructs can be explained by the model ($R^2 = 0.864, 0.904, 0.84, 0.788$, and 0.796 for CE, EME, IM, IR, and PE constructs, respectively). These results agreed with the criteria suggested by Chin (1998); as such, the validity of the model is considered satisfactory (Chin, 1998).

In the second step of the PLS-SEM method, the path coefficients were estimated. Assessing the structural model, the path coefficients among the drivers of Job autonomy, Employee engagement and Autonomous motivation were computed. The results of both the inner model path coefficients and the outer loadings are depicted in Fig. 2 below. The bootstrapping method with 2000 iterations of resampling was used to examine these path coefficients (Davison and Hinkley, 1997). The results of the bootstrapping method are summarized in Table 6 below.

Figure 2: Results of proposed model

The path coefficients and the direct effect results of Table 6 below are used to examine H1, H2, and H3. First, H1 is examined by considering each of its sub-hypotheses:

H1a. Method Autonomy positively influence Intrinsic motivation.

H1b. Scheduling Autonomy positively influence Intrinsic motivation.

H1c. Criteria Autonomy positively influence Intrinsic motivation.

H1d. Method Autonomy positively influence Integrated motivation.

H1e. Scheduling Autonomy positively influence Integrated motivation.

H1f. Criteria Autonomy positively influence Integrated motivation.

The results indicate that Method Autonomy had positive significant direct effects on Integrated motivation (path coeffs. = 0.467), but not on Intrinsic motivation, thereby supporting H1d and leaving H1a unsupported. While, Scheduling Autonomy had positive significant direct effects on Intrinsic motivation (path coeffs. = 0.229), but not on Integrated motivation, thereby supporting H1b and leaving H1e unsupported. The results showed that the last Job autonomy driver, Criteria Autonomy, had a positive significant influence on Intrinsic motivation (path coeff. = 0.581) and Integrated motivation (path coeff. = 0.457). These results supported H1c and H1f.

Next, H2 is examined through each of its six sub-hypotheses:

H2a. Intrinsic motivation positively influences Physical engagement.

H2b. Integrated motivation positively influences Physical engagement.

H2c. Intrinsic motivation positively influences Emotional engagement.

H2d. Integrated motivation positively influences Emotional engagement.

H2e. Intrinsic motivation positively influences Cognitive engagement.

H2f. Integrated motivation positively influences Cognitive engagement.

The results showed that the first Autonomous motivation driver, Intrinsic motivation, had a positive significant influence on Emotional engagement (path coeff. = 0.297), but no significant effect on neither Physical nor Cognitive engagement. These results supported H2c, but leave H2a and H2e unsupported. The results indicate that Integrated motivation had a positive significant direct effect on Physical engagement (path coeff. = 0.496), Emotional engagement (path coeff. = 0.401) and Cognitive engagement (path coeff. = 0.648). These results support H2b, H2d and H2f.

The last step of the direct effect analysis was to consider H3 stating that Job autonomy positively influence Employee engagement. Hence, the following sub-hypotheses of H3 are considered:

H3a. Method Autonomy positively influence Physical engagement.

H3b. Scheduling Autonomy positively influence Physical engagement.

H3c. Criteria Autonomy positively influence Physical engagement.

H3d. Method Autonomy positively influence Emotional engagement.

H3e. Scheduling Autonomy positively influence Emotional engagement.

H3f. Criteria Autonomy positively influence Emotional engagement.

H3g. Method Autonomy positively influence Cognitive engagement.

H3h. Scheduling Autonomy positively influence Cognitive engagement.

H3i. Criteria Autonomy positively influence Cognitive engagement.

The results indicate that Method Autonomy had a positive significant direct effect on Emotional engagement (path coeff. = 0.378), but no significant effect on neither Physical nor Cognitive engagement. These results support H3d, but leave H3a and H3g unsupported. The results showed that Scheduling Autonomy had a positive significant influence on Emotional engagement (path coeff. = 0.18), but no significant effect on neither Physical nor Cognitive engagement. These results supported H3e, but leave H3b and H3h unsupported. The results indicate that Criteria Autonomy had a positive significant direct effect on Physical engagement (path coeff. = 0.485) and Cognitive engagement (path coeff. = 0.369), but no significant effect on Emotional engagement. These results support H3c and H3i, but leave H3f unsupported.

Table 6: Path coefficients estimates

Direct effect	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
CA -> CE	0.369	0.375	0.083	4.463	0**
CA -> EME	0.094	0.104	0.07	1.35	0.178
CA -> IM	0.581	0.573	0.088	6.585	0**
CA -> IR	0.457	0.442	0.115	3.977	0**
CA -> PE	0.485	0.501	0.109	4.439	0**
IM -> CE	-0.115	-0.123	0.082	1.399	0.162
IM -> EME	0.297	0.289	0.089	3.327	0.001**
IM -> PE	-0.16	-0.166	0.125	1.275	0.203
IR -> CE	0.648	0.651	0.067	9.655	0**
IR -> EME	0.401	0.404	0.074	5.392	0**
IR -> PE	0.496	0.502	0.097	5.133	0**
MA -> CE	0.171	0.163	0.122	1.4	0.162
MA -> EME	0.378	0.371	0.108	3.49	0.001**
MA -> IM	0.126	0.131	0.129	0.978	0.328
MA -> IR	0.467	0.481	0.132	3.532	0**
MA -> PE	-0.096	-0.11	0.168	0.574	0.566
SA -> CE	-0.121	-0.113	0.099	1.224	0.221
SA -> EME	-0.18	-0.177	0.098	1.847	0.04*
SA -> IM	0.229	0.233	0.127	1.803	0.03*
SA -> IR	-0.015	-0.014	0.133	0.115	0.909
SA -> PE	0.193	0.192	0.136	1.421	0.156

* Significant at a 0.05 level. ** Significant at a 0.01 level.

The next step in the outer model analysis is to consider the indirect effects identified in H4. This hypothesis is examined through the following sub-hypothesis:

H4a. Method Autonomy positively influences Physical, Emotional and cognitive engagement through Autonomous motivation.

H4b. Scheduling Autonomy positively influences Physical, Emotional and cognitive engagement through Autonomous motivation.

H4c. Criteria Autonomy positively influences Physical, Emotional and cognitive engagement through Autonomous motivation.

The path analysis results support the indirect effects of Method Autonomy on Physical, Emotional and cognitive engagement through Autonomous motivation (path coeffs. = 0.261, 0.287 and 0.274). Method Autonomy showed the highest indirect effect on Emotional engagement.

Similarly, significant indirect effects of Criteria Autonomy on Physical, Emotional and cognitive engagement through Autonomous motivation were found (path coeffs. = 0.462, 0.508 and 0.486). The highest indirect effect of Criteria Autonomy was once again found to be on Emotional engagement. These results support H4a and H4c and are further discussed in the Discussion Section. Finally, the path analysis results indicate that Scheduling Autonomy had no such effects through Employee engagement were detected (Table 7).

Table 7: Indirect effects.

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
SA -> AM -> CE	0.097	0.099	0.105	0.923	0.356
SA -> AM -> EME	0.101	0.104	0.11	0.923	0.356
CA -> AM -> PE	0.462	0.454	0.089	5.22	0**
MA -> AM -> PE	0.261	0.267	0.102	2.558	0.011*
CA -> AM -> CE	0.486	0.477	0.093	5.201	0**
MA -> AM -> CE	0.274	0.281	0.107	2.574	0**
SA -> AM -> PE	0.092	0.094	0.1	0.924	0.355
CA -> AM -> EME	0.508	0.499	0.097	5.252	0**
MA -> AM -> EME	0.287	0.294	0.112	2.568	0**

* Significant at a 0.05 level. ** Significant at a 0.01 level.

Cluster analysis

The last step in the path coefficients analysis was to examine H5. First, respondents in the sample were grouped according to their organizational tenure and level of turbulent times. Then, multi group analysis was employed to test for differences in the significance of the path coefficients among groups. The K-means clustering method is used to group the companies. First, the number of clusters is specified, and cluster seeds were randomly chosen using SPSS 26. Subsequently, each observation was assigned to one cluster based on similarity. By varying the numbers of clusters tested, the results of the K-means procedure for turbulent times indicated a two-cluster solution which is valid and statistically significant ($p < 0.001$; see Table 8 below). The ANOVA tests revealed that all items contributed to differentiating the two clusters ($p < 0.001$). The first cluster (55 observations) appeared to have lower mean scores on turbulent times items. It is labeled "Low turbulent times." The second cluster (262 observations) was found to have the highest mean scores on turbulent times; this cluster was labeled "High turbulent times." Organizational tenure resulted in two groups, "High organizational tenure" with 240 observations and "Low organizational tenure" with 77 observations.

Table 8: Cluster analysis.

Final cluster centers			ANOVA					
	1	2	Mean Square	df	Mean Square	df	F	Sig.
	n=55	n=262	Turbulent times					
TT1	3	5	176.406	1	0.443	315	398.069	0
TT2	3	4	159.2	1	0.498	315	319.823	0
TT3	2	4	142.302	1	0.551	315	258.063	0
TT4	2	5	190.073	1	0.4	315	475.457	0
TT5	3	4	149.904	1	0.527	315	284.291	0
TT6	2	4	140.392	1	0.557	315	251.829	0
	n=240	n=77	Organizational tenure					
OT			217.817	1	0.312	315	698.824	0.000

Multi-group analysis

The final step was to compare the results from the model among the groups identified in the cluster analysis. Multi-group t-test analysis was employed in Smart PLS 3.1. The significance of the path coefficients and the confidence intervals were generated using bootstrap sampling techniques. Based on the above clustering, a multi-group analysis was conducted to determine whether the significance of the relationships in the above model (Fig. 2) differ among respondents with low and high turbulent times. The multi-group analysis is summarized in Tables 9 and 10 below.

The direct effect results of Table 9 showed that the two groups exhibit differences in the significance of Method autonomy and scheduling autonomy on emotional engagement and intrinsic motivation and integrated motivation and criteria autonomy on cognitive engagement. In all cases, the influence was significant for high turbulent times and non-significant for low turbulent times. These results provide evidence to support H5. Also, the path coefficients analysis revealed that, there was a significant effect for both high and low turbulent times on some variables. Criteria autonomy on intrinsic motivation, integrated motivation, physical engagement and intrinsic motivation on emotional engagement.

The indirect effect results of Table 10 revealed that the two group exhibit differences in the significance of the effect of criteria autonomy on emotional engagement and cognitive engagement through integrated motivation, scheduling autonomy on emotional engagement through intrinsic motivation and method autonomy on cognitive engagement through integrated motivation. In all cases, the influence was significant for high turbulent times and non-significant for low turbulent times. These results provide further evidence to support H5. Also, criteria autonomy on emotional engagement through intrinsic motivation is significant for both groups.

Table 9: Multi-group analysis for Turbulent times (direct effects).

Direct TT	High turbulent times				Low turbulent times			
	Path Coefficients	STDEV	t-Value	p-Value	Path Coefficients	STDEV	t-Value	p-Value
CA -> CE	0.587	0.109	5.399	0	0.636	0.185	3.443	0.001
CA -> EME	0.151	0.091	1.659	0.097	-0.04	0.085	0.474	0.636
CA -> IM	0.627	0.087	7.199	0	0.483	0.193	2.503	0.012
CA -> IR	0.622	0.135	4.625	0	0.536	0.163	3.279	0.001
CA -> PE	0.743	0.145	5.124	0	0.853	0.191	4.474	0
IM -> CE	-0.086	0.14	0.612	0.54	0.021	0.236	0.088	0.93
IM -> EME	0.418	0.13	3.205	0.001	0.492	0.184	2.669	0.008
IM -> PE	0.024	0.194	0.125	0.901	0.077	0.294	0.264	0.792
IR -> CE	0.463	0.105	4.39	0	0.01	0.211	0.049	0.961
IR -> EME	0.253	0.105	2.405	0.016	0.227	0.215	1.059	0.29
IR -> PE	0.076	0.14	0.543	0.588	-0.278	0.308	0.902	0.367
MA -> CE	0.113	0.169	0.665	0.506	-0.055	0.376	0.145	0.885
MA -> EME	0.383	0.115	3.338	0.001	0.322	0.271	1.189	0.235
MA -> IM	-0.031	0.123	0.247	0.805	0.616	0.376	1.637	0.102
MA -> IR	0.364	0.176	2.072	0.038	0.273	0.273	1	0.318
MA -> PE	-0.106	0.199	0.532	0.595	-0.393	0.47	0.837	0.403
SA -> CE	-0.203	0.154	1.32	0.187	0.339	0.299	1.132	0.258
SA -> EME	-0.244	0.115	2.124	0.034	0.027	0.227	0.118	0.906
SA -> IM	0.3	0.124	2.415	0.016	-0.273	0.315	0.868	0.386
SA -> IR	-0.163	0.166	0.983	0.326	0.119	0.228	0.521	0.602
SA -> PE	0.062	0.208	0.299	0.765	0.557	0.347	1.605	0.109

Table 10: Multi-group analysis for Turbulent times (indirect effects).

Indirect TT	High turbulent times				Low turbulent times			
	Path Coefficients	STDEV	t-Value	p-Value	Path Coefficients	STDEV	t-Value	p-Value
CA -> IR -> EME	0.158	0.072	2.184	0.029	0.122	0.111	1.096	0.273
SA -> IM -> CE	-0.026	0.051	0.509	0.611	-0.006	0.119	0.048	0.962
CA -> IM -> PE	0.015	0.124	0.123	0.902	0.037	0.141	0.266	0.79
MA -> IM -> EME	-0.013	0.049	0.257	0.797	0.303	0.213	1.424	0.155
SA -> IR -> CE	-0.076	0.09	0.841	0.401	0.001	0.066	0.019	0.985
SA -> IM -> EME	0.125	0.062	2.012	0.044	-0.134	0.152	0.882	0.378
SA -> IR -> EME	-0.041	0.052	0.791	0.429	0.027	0.098	0.275	0.784
MA -> IR -> EME	0.092	0.071	1.296	0.195	0.062	0.144	0.431	0.666
MA -> IM -> PE	-0.001	0.026	0.029	0.977	0.048	0.265	0.18	0.857
CA -> IR -> PE	0.047	0.086	0.549	0.583	-0.149	0.157	0.95	0.342
CA -> IM -> EME	0.262	0.086	3.062	0.002	0.238	0.105	2.255	0.024
MA -> IR -> PE	0.028	0.075	0.369	0.712	-0.076	0.151	0.505	0.614
CA -> IR -> CE	0.288	0.093	3.107	0.002	0.006	0.098	0.057	0.955
CA -> IM -> CE	-0.054	0.09	0.596	0.551	0.01	0.113	0.089	0.929
SA -> IM -> PE	0.007	0.066	0.109	0.913	-0.021	0.155	0.136	0.892
MA -> IM -> CE	0.003	0.024	0.111	0.912	0.013	0.211	0.061	0.951
SA -> IR -> PE	-0.012	0.045	0.275	0.783	-0.033	0.109	0.303	0.762
MA -> IR -> CE	0.168	0.108	1.556	0.12	0.003	0.107	0.027	0.979

Next, the above clustering of respondents based on organizational tenure was used to conduct the multi-group analysis. The results are listed in Tables 11 and 12 below. The direct effect results of Table 11 indicated that differences among the two groups were found in the significance of the direct effect of Criteria autonomy on cognitive engagement and physical engagement, Method autonomy and scheduling autonomy on emotional engagement and integrated motivation. This suggests that higher organizational tenure is required to see Job autonomy effects on motivation and engagement. On the other hand, the path coefficients analysis revealed that, there was a significant effect for both high and low organizational tenure on some variables. Criteria autonomy on intrinsic and integrated motivation. Also, the path coefficients analysis revealed that, there was a significant effect for low organizational tenure; scheduling autonomy on cognitive engagement, intrinsic motivation on emotional engagement and integrated motivation on cognitive, emotional and physical engagement. This indicates that employees with a few years of service demand a freedom on deciding their own working schedule than those who are working for a number of years. This also affects their motivation.

The indirect effect results of Table 12 revealed that the two group exhibit differences in the significance of the effect of criteria autonomy on emotional as well as physical engagement through integrated motivation, scheduling autonomy on cognitive engagement through integrated motivation and criteria autonomy on emotional engagement through intrinsic motivation. In all cases, the influence was significant for low organizational tenure and non-significant for high organizational tenure except the effect of criteria autonomy on cognitive engagement through integrated motivation; which is significant for both. Hence, employees with low organizational tenure demands some kind of motivation for engaging themselves on job responsibilities.

Table 11: Multi-group analysis for organizational tenure (direct effects).

Direct OT	High organizational tenure				Low organizational tenure			
	Path Coefficients	STDEV	t-Value	p-Value	Path Coefficients	STDEV	t-Value	p-Value
CA -> CE	0.769	0.179	4.299	0	0.156	0.083	1.873	0.061
CA -> EME	0.251	0.141	1.782	0.075	0.174	0.111	1.574	0.116
CA -> IM	0.663	0.172	3.852	0	0.518	0.118	4.379	0
CA -> IR	0.746	0.188	3.98	0	0.423	0.092	4.589	0
CA -> PE	1.12	0.189	5.931	0	0.304	0.164	1.857	0.063
IM -> CE	-0.055	0.109	0.506	0.613	-0.119	0.086	1.384	0.166
IM -> EME	0.276	0.169	1.63	0.103	0.36	0.121	2.967	0.003
IM -> PE	-0.083	0.16	0.521	0.602	-0.217	0.157	1.381	0.167
IR -> CE	0.259	0.149	1.738	0.082	0.961	0.043	22.097	0
IR -> EME	0.399	0.206	1.939	0.053	0.476	0.055	8.692	0
IR -> PE	-0.05	0.238	0.212	0.832	0.997	0.065	15.303	0
MA -> CE	0.121	0.153	0.791	0.429	0.369	0.209	1.765	0.078
MA -> EME	0.352	0.161	2.184	0.029	0.127	0.2	0.631	0.528
MA -> IM	0.092	0.142	0.646	0.518	0.23	0.295	0.778	0.437
MA -> IR	0.461	0.148	3.107	0.002	0.165	0.182	0.903	0.367
MA -> PE	-0.12	0.216	0.554	0.58	0.117	0.329	0.356	0.722
SA -> CE	-0.263	0.191	1.376	0.169	-0.397	0.132	3.01	0.003
SA -> EME	-0.382	0.183	2.081	0.038	-0.127	0.173	0.733	0.464
SA -> IM	0.032	0.153	0.212	0.832	0.2	0.254	0.789	0.43
SA -> IR	-0.407	0.186	2.19	0.029	0.34	0.187	1.825	0.068
SA -> PE	-0.216	0.255	0.85	0.396	-0.262	0.259	1.011	0.312

Table 12: Multi-group analysis for organizational tenure (indirect effects).

Indirect OT	High organizational tenure				Low organizational tenure			
	Path Coefficients	STDEV	t-Value	p-Value	Path Coefficients	STDEV	t-Value	p-Value
CA -> IR -> EME	0.298	0.173	1.721	0.085	0.201	0.049	4.111	0
SA -> IM -> CE	-0.002	0.022	0.083	0.934	-0.024	0.038	0.622	0.534
CA -> IM -> PE	-0.055	0.114	0.487	0.627	-0.113	0.083	1.358	0.175
MA -> IM -> EME	0.025	0.045	0.56	0.576	0.083	0.103	0.802	0.423
SA -> IR -> CE	-0.105	0.097	1.086	0.278	0.327	0.181	1.811	0.07
SA -> IM -> EME	0.009	0.045	0.199	0.842	0.072	0.078	0.923	0.356
SA -> IR -> EME	-0.162	0.133	1.216	0.224	0.162	0.092	1.767	0.077
MA -> IR -> EME	0.184	0.138	1.328	0.184	0.078	0.091	0.86	0.39
MA -> IM -> PE	-0.008	0.028	0.278	0.781	-0.05	0.083	0.601	0.548
CA -> IR -> PE	-0.038	0.174	0.216	0.829	0.422	0.091	4.636	0
CA -> IM -> EME	0.183	0.114	1.608	0.108	0.186	0.074	2.517	0.012
MA -> IR -> PE	-0.023	0.129	0.18	0.857	0.164	0.189	0.868	0.386
CA -> IR -> CE	0.193	0.124	1.554	0.12	0.406	0.087	4.686	0
CA -> IM -> CE	-0.037	0.074	0.497	0.619	-0.062	0.044	1.388	0.165
SA -> IM -> PE	-0.003	0.033	0.083	0.934	-0.044	0.071	0.616	0.538
MA -> IM -> CE	-0.005	0.019	0.262	0.793	-0.027	0.055	0.497	0.619
SA -> IR -> PE	0.021	0.107	0.191	0.848	0.339	0.178	1.901	0.057
MA -> IR -> CE	0.119	0.096	1.241	0.215	0.158	0.175	0.906	0.365

Conclusions

Based on the extant literature, there is some empirical research that has reported relationships between engagement and work outcomes. For example, engagement has been found to be positively related to organizational commitment and negatively related to intention to quit, and is believed to also be related to job performance and extra-role behavior (Schaufeli and Bakker, 2004; Sonnentag, 2003). Schaufeli and Bakker (2004) found that engagement was negatively related to turnover intention and mediated the relationship between job resources and turnover intention. Hence, when employees believe that their organization is concerned about them and cares about their well-being, they are likely to respond by attempting to fulfill their obligations to the organization by becoming more engaged. This leads to a favorable outcome; employee engagement. Understanding the drivers of employee engagement is essential as indicated by several recent studies. The benefits of adopting Job autonomy have been examined in the literature. (Somers, 2009) study proposed that commitment processes are very complex as it involves the human psyche and emotions. The relative levels of commitment for each employee affect how the psychological state of commitment is experienced. For example, when AC and NC are high, the potentially negative effects of CC are eased out because employees do not feel stuck in their organizations, but feel invested in them. In case of employee retention, potential negative effects of CC seem to be mitigated when AC and NC are also high (J. Lee & Wei, 2017).

This study determined the importance of the drivers of Job autonomy and autonomous motivation and their influence on physical, emotional and cognitive engagement. Several drivers have been identified in the literature which include method, scheduling and criteria autonomy and intrinsic motivation and integrated regulation (Ryan & Stiller, 1991; Ghosh & Swamy, 2014; Silva et al., 2015). In addition, the role of organizational tenure, and turbulent times were examined as they play an important role in changing employees' attitude, achieve employee engagement, and enhance performance. A holistic model that depicts and examines the relationships among Job autonomy, its drivers, as well as factors that create autonomous motivation and influence employee engagement was developed and tested empirically. Using data collected from a sample of 317 Ethiopian commercial banks, the proposed relationships were tested.

The two research questions considered in this paper were addressed through the analysis of the collected data. The first question examined was that of determining the extent to which Method, scheduling and criteria autonomy influence autonomous motivation, and employee engagement. The results confirmed that Method, Criteria and Scheduling autonomy influence autonomous motivation. In line with the results of (Andrew & Sofian, 2012) and (Leitão & Devezas, 2018), Method Autonomy and Criteria Autonomy were found to directly affect Integrated motivation. While Criteria Autonomy and Scheduling Autonomy was found not to have a positive direct influence Intrinsic motivation.

The results showed that the first Autonomous motivation driver, Intrinsic motivation, had a positive significant influence on Emotional engagement, but no significant effect on neither Physical nor Cognitive engagement. The results indicate that Integrated motivation had a positive significant direct effect on Physical, Emotional and Cognitive engagement. These findings are marginally consistent with those of (Saks, 2006; Oudeyer et al., 2008; Rich et al., 2010; Malinowska et al., 2018). Finally, the results of the direct effects indicated that Method and Scheduling Autonomy had a positive significant direct effect on Emotional engagement, but no significant effect on neither Physical nor Cognitive engagement, thereby supporting the results of (Andrew & Sofian, 2012). However, Criteria Autonomy had a positive significant direct effect on Physical engagement and Cognitive engagement, but no significant effect on Emotional engagement.

Sofian (2012) found that job autonomy impact employee engagement through autonomous motivation. Our results confirmed the indirect effects of the drivers of job autonomy on organizational commitment. But, this works out only for method and criteria autonomy. Scheduling Autonomy had no such effects through autonomous motivation were detected. The influence of Scheduling Autonomy on employee engagement through autonomous motivation explains the discrepancies between our results and those of Sofian (2012).

The second question examined was that of determining the extent to which Organizational tenure and turbulent times influence the relationships between job autonomy, autonomous motivation and employee engagement. To investigate the role of Organizational tenure and turbulent times play to assure employee engagement resulting from the adoption of job autonomy, multi-group analysis was employed. The results indicate that differences in the significance of several of the direct and indirect relationships examined in this study were exhibited among the groups of respondents with low and high Organizational tenure and turbulent times. Most differences revealed that the relationships are stronger for respondents with higher tenure and high turbulent times. For instance, the direct effect of Method autonomy and scheduling autonomy on emotional engagement and intrinsic motivation and integrated motivation and criteria autonomy on cognitive engagement. In all cases, the influence was significant for high turbulent times and non-significant for low turbulent times.

Also, there was a significant effect for both high and low turbulent times on some variables. Criteria autonomy on intrinsic motivation, integrated motivation, physical engagement and intrinsic motivation on emotional engagement. The indirect effect results; the effect of criteria autonomy on emotional engagement and cognitive engagement through integrated motivation, scheduling autonomy on emotional engagement through intrinsic motivation and method autonomy on cognitive engagement through integrated motivation. In all cases, the influence was significant for high turbulent times and non-significant for low turbulent times. Also, criteria autonomy

on emotional engagement through intrinsic motivation is significant for both groups. This supports the assertion that People are intrinsically motivated and intrinsically regulated when they do something because they find it interesting and derive spontaneous satisfaction from it; this is inherently autonomous motivation (Shao et al., 2017)

There was a direct effect of Criteria autonomy on cognitive engagement and physical engagement, Method autonomy and scheduling autonomy on emotional engagement and integrated motivation. This suggests that higher organizational tenure is required to see Job autonomy effects on motivation and engagement. On the other hand, there was a significant effect for both high and low organizational tenure on some variables. Criteria autonomy on intrinsic and integrated motivation. Also, there was a significant effect for low organizational tenure; scheduling autonomy on cognitive engagement, intrinsic motivation on emotional engagement and integrated motivation on cognitive, emotional and physical engagement. This indicates that employees with a few years of service demand a freedom on deciding their own working schedule than those who are working for a number of years. This also affects their motivation. These results are in agreement with the conclusion of (Sturman, 2003; Feldman, 2010; Beus et al., 2010) that the rate of acquiring more tenure-related resources tends to be greater in employees who are in early, rather than advanced, stages of organizational membership.

The indirect effect results revealed the significance differences in the effect of criteria autonomy on emotional as well as physical engagement through integrated motivation, scheduling autonomy on cognitive engagement through integrated motivation and criteria autonomy on emotional engagement through intrinsic motivation. In all cases, the influence was significant for low organizational tenure and non-significant for high organizational tenure except the effect of criteria autonomy on cognitive engagement through integrated motivation; which is significant for both. Hence, employees with low organizational tenure demands some kind of motivation for engaging themselves on job responsibilities.

Managerial implications

The findings of this study suggest that creating job autonomy and assuring autonomous motivation, may help companies gain employee engagement and enhance their performance. The adoption and implementation of such activities is driven by method, criteria and scheduling autonomy. The successful implementation of these practices requires to consider the level of turbulent environment, and organizational tenure. These requirements not only help in overcoming human resource management challenges, but also in achieving a proper balance of higher performance and gaining competitive advantage.

This study suggests several implications for managers and decision makers. First, the drivers of job autonomy and the factors required for their successful implementation are identified. Recognizing and understanding these drivers and factors will help decision makers devise strategies and policies to successfully adopt practices and overcome the human resource challenges. Moreover, this understanding can help managers successfully promote practices in their companies, and increase their commitment. Finally, this study identifies the effects of turbulent times and organizational tenure on autonomous motivation and employee engagement. Hence, the study adds knowledge to the successful implementation and benefits of job autonomy practices.

Limitations and future scope of research

By presenting and examining the model linking multiple constructs, this paper is one of the first works to deal with such a complex framework. Through the painstaking analysis of the model, we were able to determine the influence of method, scheduling and criteria autonomy, as well as turbulent times and organizational tenure on autonomous motivation, and employee engagement.

Although this study has certain limitations, they offer prospects and directions for future research. First, this study is quantitative in nature which could have benefited from a qualitative examination that reinforces the development of the proposed model. Moreover, cross examination of the results with experts and managers would have enriched the implications. The target population used in this study, Ethiopian commercial Banks, stands as another limitation. The results may have been influenced by aspects specific to the culture of the country under consideration. Also, it is limited under one sector and industry. In addition, the conceptual model did not consider the full scope of components of job design (Skill variety, task identity, task significance and job feedback), Other human resource management practices as a mediating variable, and the social aspects of autonomous motivation, and employee engagement.

For future research, we suggest a combination of qualitative and quantitative study to further investigate the proposed model. Also, a cross cultural comparative analysis of the model can be conducted to examine differences in the relationships by selecting a sample of firms in counties with diverse cultures as well as firms from different sectors and industries. Finally, the proposed model can be extended to incorporate other components of job design and human resource management practices, as well as the social aspects of autonomous motivation, and employee engagement.

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