

# A Study on the Determinants of Engagement and Ambidexterity among Engineers in SMEs Engineering Consulting Firms

Muhamad Khalil Omar<sup>1</sup>, Yusri Hazrol Yusoff<sup>2\*</sup> and Zahira Abdul Rahman<sup>3</sup>

<sup>1</sup>Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Selangor, Bandar Puncak Alam, Selangor, Malaysia

<sup>2</sup>Faculty of Accountancy, Universiti Teknologi MARA, Cawangan Selangor, Bandar Puncak Alam, Selangor, Malaysia

<sup>3</sup>Golden Land Berhad, Subang Jaya, Selangor, Malaysia

## ABSTRACT

Various studies conducted on business sustainability have shown that organisations need to become ambidextrous in order to sustain in rapidly changing environments. A number of studies have investigated on numerous organisational ambidexterity antecedents and outcomes. However, very few studies have focused at the employee level. Therefore, the purpose of this study was to identify the variables that determine engagement and ambidexterity among engineers in the SMEs context which were predicted to be determined by person-job fit, person-team fit, and person-organisation fit. The samples were obtained from 106 graduate engineers working in SMEs Engineering Consulting Firms. Covariance-Based Structural Equation Modeling (CB-SEM) was used to test the direct and indirect effects of the variables using the Analysis of Momentum Structures (AMOS). Results indicated that only person-job fit influenced employees' engagement, employees' engagement influenced employees' ambidexterity, and employees' engagement mediated the relationship between person-job fit and employees' ambidexterity. In summary, the findings of this study could be applied in SMEs for developing and implementing organizational strategies to improve the level of employees' engagement and employees' ambidexterity by focusing on person-job fit, person- team fit, and person-organisation fit.

**Keywords:** employees' engagement, employees' ambidexterity, engineering

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\* Corresponding author: Yusri Hazrol Yusoff. Email: [yusrihazrol@uitm.edu.my](mailto:yusrihazrol@uitm.edu.my)

## **INTRODUCTION**

Business environments in this 21st century are changing, unlike before. Current business environments are witnessing globalisation, technological changes and intense competition than ever before and are moving at a constant pace. It is important for business organizations today to change, become flexible and adapt to the volatile, uncertain, complex and ambiguous (VUCA) business environment to succeed and sustain. Business organisations have to continuously develop their existing skills and discover new methods at the same time by developing new skills, to gain competitive advantage compared to their competitors. With regard to this, ambidexterity has emerged in the management area. Various studies conducted on business sustainability have shown that organisations need to become ambidextrous in order to sustain in these rapidly changing environments. Ambidexterity according to Gibson and Birkinshaw (2004) refers the capability of an organization managing two different skills at the same time. While Tushman and O'Reilly (1996), explained the concept as the capacity to balance between the two skills, which are discoveries and enhancement of activities. Successful companies are exploring existing businesses and exploiting new businesses simultaneously (Mom, Fourne, & Jansen, 2015). A number of studies have investigated on numerous organizational ambidexterity antecedents and outcomes such as the structure of the organisation, knowledge transfer and integration (Gibson & Birkinshaw, 2004)

Although organizational ambidexterity has been widely explored, very few studies have focused at the employee level. Employees are the key to a firm's performance. The ability to manage talent will become an organisation's strength to adapt and to become flexible to overcome changes in the business environment. Organisational ambidexterity developed as an aggregate capability based on individual activities within an organization (Gibson & Brikshaw, 2004). Individuals engage in individual ambidexterity as they explore and exploit existent or new knowledge within their daily tasks (Mom, Fourne, & Jansen, 2015). Ambidextrous employees will support organisations to become an ambidextrous organisation as individual employees serve as the foundation for organizational ambidexterity. Therefore, this study focussed on ambidexterity at the individual level. Besides focusing on individual ambidexterity, increasing

business competition, technological advances and globalisation, have made many organizations invest in their employees. Investment in human capital is needed to gain competitive advantage.

Other than ambidexterity, one of the major focuses in human resource management is employee engagement. It is a condition where employees are committed and devoted to their job. Employee engagement has been discussed by practitioners as well as academicians in the recent past (Lai et al., 2020; Mone & London, 2018; Saks & Gruman, 2014) as in Sahni (2021). This is due to the abundance of beneficial outcomes for the employer and the employee as well. Engaged workers have better psychological health, better work performance, and also higher commitment at work.

## **Background of SMEs**

This study focussed on Small and Medium Enterprises (SMEs) as SMEs manifest their impact on national and regional economies all around the world. In ASEAN, SMEs constitute a large number of establishments in all ASEAN member states, ranging between 88.8 - 99.9% and contribute significantly in creating employment opportunities, ranging between 51.7 - 97.2%. In Malaysia, SMEs are the pillar of the nation's economy. Consisting of 98.5% of the total business community, SMEs are certainly a key growth engine for the country. To record, there are about 907,065 establishments in the country. In order to become a developed nation, SME's performances need to be given more attention because of their important contributions to the economy. In 2017, SMEs accounted for 66.0% of the total employment in Malaysia (2016: 65.3%) as employment of SMEs continued to increase with a growth of 3.4% (2016: 2.1%), in line with the trend in GDP growth of SMEs. The growth for SME employment was higher while large firms remained flat at -0.01% in 2017, partly due to a shift of employment from large firms to SMEs.

This study further focussed on engineers in the construction industry. As Malaysia is currently undergoing the Construction Industry Transformation Programme 2016-2020 (CITP), that was introduced to change the construction industry to improve productive, environmental sustainability and to become a global competitive player while at the same time focusing on safety and quality standards. Engineers are one of the key drivers to this transformation. One of the initiatives is to encourage continued

investment in skills upgrading and human capital development with the objective of providing more than 30,000 skilled and certified graduates for the construction workforce by 2020, and to lower the over dependent use of foreign workers in this sector.

## **Problem Statement**

This study focussed on SMEs as in ASEAN, SMEs constitute a large number of establishments in all ASEAN member states, ranging between 88.8 - 99.9% and contribute significantly in creating employment opportunities. This study focussed further on engineers in the construction industry. Construction 4.0 is part of the IR 4.0 where the industry is shifting to digitalisation. As for the construction sector, this will be one of the ways to support the government initiative to transform the construction industry through the introduction of the Construction Industry Transformation Programme (CITP), one of the Rancangan Malaysia Ke-11 (RMK11) aiming to improve the construction industry.

As reported by Construction Industry Development Board (CIDB), referring to Malaysia Productivity Report 2017/2018, the construction industry recorded the lowest productivity level due to the over dependency on foreign workers. Therefore, it needs to increase the adoption of modern and technological construction methods to improve the efficiency and reduce over-reliance on foreign workers as reported by CIDB. Moreover, the construction sector has been much affected by unexpected situations such as construction delays. To overcome these, the government introduced the implementation of Building Information Modelling (BIM) in 2007, software solutions that have been proven to provide a huge potential in solving construction problems such as managing the right quantity for each structure, decreasing construction costs, avoiding project delays and preventing disputes between construction players. However, BIM adoption in Malaysia is still on the surface. To support the adoption further, CIDB recommended the use of BIM in certain private sector projects mandatory by 2020 (CIDB, Annual Report 2020). Due to this, more and more clients are demanding for the knowledge and application of BIM in the process of selecting consultants to be involved with their upcoming projects. Therefore, construction industry players that include consultants need to have ambidextrous individuals within their firms to exploit and explore current and new knowledge for improvement.

As there is a need to be empirical study on employee ambidexterity in Malaysia, this study fills the gap and provides a holistic value to the nation in support of BIM implementation. While for SMEs, there are limited studies conducted on individual ambidexterity in the SMEs setting in Malaysia, and at the professional level. Previous studies conducted on individual ambidexterity were mostly among managers at the management level and also shop floor level (Ajayi, Odusanya, & Morton, 2017).

As for employee engagement, in a report published by AON Hewitt, the level of employees' engagement in Malaysia declined by 2% to 59% in 2017. For the Asian market, employees in Malaysia and Singapore were the least engaged, both with 59%. Therefore, a study on employees' engagement is needed to overcome the low level of employees' engagement among Malaysians. According to the AON Hewitt's analysis, regional differences in engagement are driven by regional and country-specific political, cultural and economic factors. Even though there are many researchers conducted on employee engagement determinants globally and locally, to date, there is limited empirical effort to test the determinants of employee engagement especially in the SMEs industry in Malaysia. This study further focused on engineers, as suggested by Priyono et. al. (2020), future research needs to be done systematically across specific industry sectors and in different occupations. Identifying job demands and specific resources for specific jobs and the different industrial sectors will allow for the use of the most valid interventions and therefore have the potential to be effective.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Employees' Ambidexterity**

Employees' ambidexterity is defined as the employee's behavioural orientation in exploitation and exploration activities within a certain time period (Mom, Van Den Bosch, & Volberda, 2009). Ambidexterity is often explained metaphorically as the ability to use both hands with the same capabilities (Priyono et. al., 2020). In this age of the knowledge economy and digitalisation, organisations are exposed to intense competition and changes. To survive with various demands and to achieve long-term sustainability and

business success, organizations have to exploit current capabilities while exploring new capabilities at the same time to gain competitive advantage. Ambidexterity is one of the sources for organisational sustainability and long-term business success. Turner, Swart and Maylor (2013) explained ambidexterity as the capability to use and improve existing knowledge and exploitation, and overcoming knowledge deficiencies within the exploration activities by creating new knowledge.

Seong et al. (2015) further defined employee ambidexterity as individuals' pursuit of both exploitative and explorative activities. Consistent with this perspective, exploitation involves behaviors which require some degree of improvement to a skill or knowledge in order to complete a task, whereas exploration involves behaviours on gaining a new skill or knowledge to find alternative or new ways in completing a task. A study conducted by Nguyen (2018) showed that individual ambidexterity is positively related to job performance. The finding was supported the study by Torres, Drago and Aqueveque (2015) where the finding showed that ambidexterity was positively associated with short and long-term performance.

Based on the literature review conducted for this study, several researchers have studied the antecedents and outcomes of individual ambidexterity including various factors inducing individual ambidexterity such as handling work stress and trust building (Zhang, Wei, & Horne, 2018), motivation (Caniels & Assen, 2019; Kao & Chen, 2016), and organisational contextual factors that relate to individual ambidexterity, such as work contexts (Mom, Fourné, & Jansen, 2015), organisational architecture and organisational contexts (Schnellbacher, Heidenreich, & Wald, 2019), knowledge transfer (Priyono et. al., 2020) or culture (Caniëls et al., 2017; Ajayi et al., 2017). Ajayi et al. (2017) in their study among Nigerian SMEs shop-floor employees found that organisational contexts that consisted of knowledge sharing culture, adhocracy and clan culture, and organic structure encouraged employees' engagement and employees' ambidexterity where employees' engagement positively influenced employees' ambidexterity. It can be seen that most of the studies examining on the organisational context measured how fit the individual was with the organisational variables. However, no empirical study on organisational contexts that comprises of fit between person-job, person-team fit and person-organisation fit has been conducted. Such fit may have a unique effect on employee ambidexterity.

## **Dimensions of Employees' Ambidexterity**

Contextual ambidexterity refers to the exploration and exploitation activities that complement organisational activities that emphasis on individuals. Contextual ambidexterity considers the behavior of individuals and their characteristics in simultaneously fostering alignment and adaptability (Cao, Simsek, & Zhang, 2010; Lubatkin, Simsek, Ling, & Veiga, 2006; Raisch & Birkinshaw, 2008). This study focussed on the contextual ambidexterity approach. Two dimensions of employees' ambidexterity were explored in this study; employees' passive ambidexterity and employees' active ambidexterity. Employee passive ambidexterity assessed the tendency of employees to exploit existing opportunities and explore new opportunities simply by following organisational procedures. While active employee ambidexterity assessed employees' tendency to seek novel means to engage in exploitation and exploratory activities beyond the organisational rules and procedures.

## **Employees' Engagement**

Kahn (1990) defined employees' engagement as the harnessing of organizational members to their work roles, where they express themselves during role performance physically, cognitively and emotionally. Employee engagement can therefore be understood as the physical, psychological, and emotional enthusiasm observed in employees who are fully emerged and involved in their work (Sahni, 2021). Employees can be categorised into three categories. They are engaged employees, not engaged, and actively disengaged employees. According to Sorenson and Garman (2013), engaged employees show passion and drive to their work and committed to the organization while not engaged employees are just following the workflows. Whereas for actively disengaged employees, they are not happy at work, and express their unhappiness and lack of drive and passions towards their work. Various studies have been conducted on examining the outcomes of employees' engagement. Thompson, Lemmon, and Walter (2015) claimed that employees who commit to these higher levels of employee engagement receive benefits such as achieving higher quality of work performance (Bakker & Damerouti, 2008; Thompson et al., 2015; Othman & Mahmood, 2019), make fewer errors, maintain a stronger commitment to the organization, and uphold a mind set to go above-and-beyond for the

organization (Thompson et al., 2015). Besides that, engagement helps to decrease the level of job stress (Anupama, Sujatha, & Reddy, 2019), and increase employee retention (Saks & Gruman, 2014) confirming a previous study by Schaufeli and Bakker (2004) where engaged employees had a lower tendency to quit and a greater attachment to the organisation.

Studies have been conducted studying the determinants of employees' engagement. Anitha (2014) determined that work environment and co-worker relationship had a significant impact on employees' engagement among other variables which were leadership, training and career development, compensation programmes, policies and procedures and workplace wellbeing. Another study conducted by Handayani, Anggraeni, Andriyansah, Suharnomo and Rahardja (2017) in SMEs in Central Java, Indonesia found that distributive justice had a significant effect on employees' engagement among other variables; knowledge creation and work design.

Whereas in the Malaysian setting, a study by Priyono et. al., (2020) examined factors that influenced employees' engagement within the financial sector in Malaysia found that an empowering leadership behaviour influenced employees' engagement the most. While High-performance work practices (HPWP) that is being practised at the organizational level effected employees' engagement. Religiosity was found to be vital to Malay muslim employees' engagement. Another study conducted by Mohd, Shah and Zailan (2016) investigated how rewards, work environment and work life-balance effected on employees' engagement and found that the work environment influenced employee engagement the most, followed by rewards and work-life balance. Various factors can be seen leading to employees' engagement and each of them differed accordingly. Therefore, other determinants should be discovered as well to gain more insights about employees' engagement.

## **The Theory of Fit**

The Fit Theory suggested that individuals differ in personal attributes and seek environments that best match their unique levels of personal attributes where individual outcomes are most optimal when the person and the environment are congruent. Fit can take two forms; individual



and environmental attributes are similar, or individual attributes are complemented by the organizational environment. In a work environment, fit includes a wide range of fit, such as person-vocation fit (the congruence between individual vocational interests and vocational characteristics), person-job fit (fit between individual abilities and needs and the demands and supplies of the job), person-organization fit (fit between individual and organizational values), person-team fit (fit between individual attributes and those of the work group), and person-supervisor fit (fit between individual attributes and those of the supervisor). Person-vocation and person-job fit are considered as complementary fit as they relate to attributes such as preferences, needs, and abilities that are complemented by environmental supplies and demands. While person-organization fit, person-team fit, and person-supervisor fit are generally conceived of as supplementary fits concerning attributes such as personalities, values, and goals. This study focussed on person-job fit, person-team fit, and person-organisation fit.

### ***Person-job fit***

Person–Job fit is defined as the congruence between personal attributes and job attributes characterised into demands–abilities fit and needs-supplies fit. Demands–abilities fit refers to the congruence between the demands of a job and an employee’s abilities. While needs- supplies fit refers to the congruence between an employee’s needs/wants with the supplies available from a job (Kristof-Brown, 2000). Person-Job fit includes fit in capabilities, job characteristics, interests, or personalities (Sung, Seong, & Kim, 2020).

### ***Person-team fit***

Person-team fit is defined as the similarity between an individual and their group and has been described as the perceived compatibility between individual team members and their team (Kristof- Brown, 1996). Piasentin and Chapman (2007) and De Cooman, Vantilborgh, Bal, and Lub (2016) introduced a more understanding of person-team fit which consisted of complementary and supplementary person-team fit. When there is a high psychological characteristic between team members, supplementary fit occurs. Whereas for complementary person-team fit, when a team member possesses psychological characteristics that are unique, fit occurs. The dissimilarity makes him/her unique and a valued member of the team (Piasentin & Chapman, 2007).

### **Person-organisation fit**

Kristof-Brown (1996) described Person-Organisation (P-O) fit as the compatibility between people and organizations that occurs when at least one entity provides what the other needs, or they share similar fundamental characteristics, or both. Priyono et. al., (2020) defined person- organization-fit as the congruence between the organization's norms and value and the person's value. It is based on the fit between values and goals of employees and organisations that has attracted significant attention partly due to rapid changes in job characteristics that have led to revised job descriptions, such that organizations now possess sufficient flexibility to actively adapt to various dynamic environments (Sung et al., 2020).

### **Employees' Engagement as a Mediator**

With regard to the mediating role of employees' engagement, Saks (2006) found that employees' engagement mediated the relationship between antecedents and consequences. He examined job characteristics, perceived organizational support, perceived supervisor support, appreciation and recognition, procedural fairness and distributive justice as an antecedent, with temporary job satisfaction, organizational commitment, organizational citizenship behavior and intention to quit as a result of employees' engagement. The study was conducted among employees working in various organizations in Toronto. The results showed that employees' engagement (employment and organization) mediated the relationship between antecedents and their consequences. Other studies also confirmed the role of employee engagement as a mediator (Juhdi et al., 2013; Schaufeli & Bakker, 2004). Biswas and Bhatnagar (2013) also found that employees' engagement mediated the relationship between person-organisation fit and perceived organisational support on the outcomes of employee engagement; organisational commitment and job satisfaction.

### **The Relationship between Person-Job Fit and Employees' Engagement**

A study conducted by Priyono et. al. (2020) examining the effect of person-job fit on employee engagement among public and private sector lecturers in West Kalimantan, Indonesia found that there was an effect on person-job fit and employee engagement with a significant difference

between public and private higher educational lecturers. The finding supported previous research by Priyono et. al. (2020). A study conducted among technology company employees in China, found that person-job fit was significantly related to work engagement, among other variables; person-group fit and empowering leadership that were also significantly related to employee engagement. Shuck, Reio, and Rocco (2011) in a correlational study on employees in various industries also found that person-job fit was significantly related to employee engagement. A study conducted in Romania, studying front line employees in a hospitality industry by Seong et. al. (2015) found that person-job fit influenced engagement. Rahmadani and Sebayang (2017) also found that person-job fit influenced employees' engagement. The study was conducted among policemen in Sumatera Utara, Indonesia and found that the closer the congruence between the policemen attributes and the job demands, the higher the level of their work engagement. The finding was similar to a study conducted by Hamid and Yahya (2011) examining the relationship between person-job fit and employees' engagement among engineers in semiconductor companies in Malaysia, found a significant relationship between person-job fit and employees' engagement. Therefore, this study hypothesized that:

**H1:** There is a relationship between person-job fit and employees' engagement.

## **The Relationship between Person-Team Fit and Employees' Engagement**

Several studies have shown that there is a positive relationship between perceived supplementary fit and co-worker satisfaction, team cohesion, organizational commitment, organizational citizenship behaviors, general satisfaction, and decrease turnover intentions (Kristof-Brown, Zimmerman, & Johnson, 2005). Despite various previous researches showing that high degrees of person-team fit predict positive work outcomes such as performance and satisfaction (Kristof-Brown & Guay, 2011), little is known on the relationship between person-team fit and employee engagement. Reviews stipulate that research on one particular type of fit, which is person-team fit is underdeveloped (DeRue & Hollenbeck, 2007; Kristof-Brown et al., 2005). Less attention has been given on person-team fit compared to other types of fit such as Person-Organization and Person-Job fit (Seong, Kristof- Brown, Park, Hong & Shin, 2015).

Studies by Seong and colleagues (Kristof-Brown, Seong, Degeest, Park, & Hong, 2014; Seong et al., 2015) on the relevance of perceived person–team fit as a meaningful team-level concept found that a team member may perform better when there is a good fit with the team. However, the team will not function well, if other team members do not perceive a good fit which in turn will influence the team outcomes. According to Seong et al. (2015), the attainment of person-team fit influences both individual and team performance. These are likely to influence organizational effectiveness.

Van Mierlo and Bakker (2018) investigated whether engagement can cross over between individuals who work in newly formed teams. The results showed that the engagement scores of the team member converge over time, supporting the proposed crossover effect of engagement, especially when the most engaged team member is highly engaged at the beginning of the group task (Bakker & Albrecht, 2018). In addition, as according to Tuckey, Bakker and Dollard (2012), employees who have unique knowledge, skills and abilities coupled with their team’s demands may work more engaged to perform their jobs well. This supports the finding of a current study conducted by Priyono et al. (2020). In their study examining the influence of person-team fit on employees’ engagement among nurses in China, the result showed that person-team fit positively influenced employees’ engagement. Therefore, this study hypothesized that:

**H2:** There is a relationship between person-team fit and employees’ engagement.

## **The Relationship between Person-Organisation Fit and Employees’ Engagement**

According to Van Vuuren, Veldkamp, Jong and Seydel (2007), within the person-organisation fit, individuals create a sense of mutual agreement of purpose for their employer and increase their role performance effectiveness which in turn, leads to psychological safety (Biswas & Bhatnagar, 2013). As safety is one of the conditions of employee engagement, there is a possibility that a high level of psychological safety may lead individuals to be highly engaged. Furthermore, the congruence between value and goal congruence of both employee and employer are integral parts of person-organisation fit that build meaningfulness and psychological attachment. The higher level

of person-organisation fit will foster higher level of employee engagement (Biswas & Bhatnagar, 2013). Chhetri (2017), in her study among Nepali employees in various industries found that person-organization-fit was positively related with employee engagement which clearly indicated that employees' perception of their fit with an organization positively affects their engagement in the organization.

This finding is consistent with the finding by Biswas and Bhatnagar (2013). In their study in north-central India they found that the degree of perceived organisational support and person-organisation fit were related to engagement, organisational commitment and job satisfaction. The finding showed that there is a significant relationship between person- organisation fit and employee engagement. Rahmadani and Sebayang (2017) also found that person-organisation fit positively related to employees' engagement. The study among policemen in Sumatera Utara, Indonesia found that the closer the congruence between the policemen characteristics to the institution's characteristics, the higher the level of their work engagement. The finding is similar to a study conducted by Hamid and Yahya (2011) examining the relationship between person-organisation fit and employees' engagement among engineers in semiconductors companies in Malaysia, that found that a significant relationship between person- organisation fit and employees' engagement. Therefore, this study hypothesized that:

**H3:** There is a relationship between person-organisation fit and employees' engagement.

### **The Relationship between Employees' Engagement and Employees' Ambidexterity**

Various studies conducted by previous researchers have shown positive outcomes of employees' engagement such as organisational commitment, and negatively impacted turnover. A study conducted by Hanaysha (2016) among employees in a public university in Malaysia showed that employee engagement positively influenced organisational commitment. The study conducted by Karatepe (2013) found that engagement negatively impacted employees' turnover intention. This finding explained that individuals who are highly engaged in their work were less likely to leave the organization, which subsequently increased their retention level within the organization.

Engaged employees are highly energetic, enthusiastic, proud on their job, and highly involved and concentrate when conducting their job (Saks & Gruman, 2011). They also would feel happy and show greater interest in their work that could influence them to continue performing their work. At this stage, engaged employees would finally feel more motivated (Salanova et al., 2011), which in return influences them to remain longer in the organization.

Although various studies have been conducted on the outcomes of employees' engagement, there is little empirical studies conducted studying the relationship between employees' engagement and employees' ambidexterity. Based on the finding from the study of previous researchers, Ajayi et al. (2017) in their study among Nigerian SMEs shop- floor employees found that employees' engagement positively influenced employees' ambidexterity. As employees' engagement establishes a strong motivational basis of desirable behaviors as according to Saks and Gruman, (2011), engaged employees are believed to work better and smarter (Kim, Kolb, & Kim, 2013) as in Kwon and Kim (2020). Due to the synergy of cognitive, emotional, and physical engagement, employee engagement is expected to drive innovative behavior (Hakanen, Schaufeli, & Ahola, 2008) and ambidexterity. Therefore, this study hypothesized that:

**H4:** There is a relationship between employees' engagement and employees' ambidexterity.

### **The Mediating Role of Employees' Engagement on Person-Fit and Employees' Ambidexterity**

Numerous past studies have identified the role of employees' engagement as a mediator. However, most of the studies were mostly on the mediating role of employee engagement on the relationship between person-organisation fit and the outcomes. Limited empirical evidence was found on the mediating role of employee engagement on the relationship of person-job fit and person-team fit. Memon, Salleh and Baharom (2014) proposed a three-step conceptual model that linked person-job-fit, person-organisational fit, employee engagement and turnover intention. Chhetri (2017), in her study on employee engagement among Nepali employees in various industries found the mediating role of employee engagement in the relationship between person-organisation fit and job satisfaction

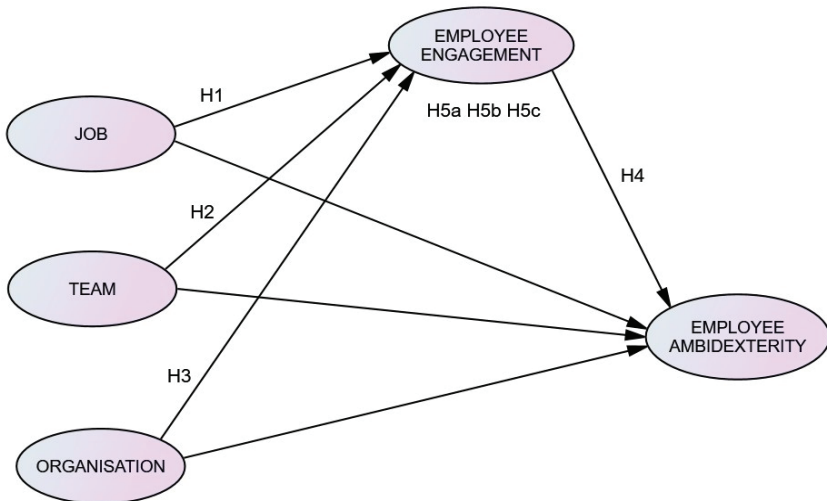
and employee engagement mediated the relationship between person-organisation fit and organisational citizenship behaviour.

The finding is similar to the study by Sulea et al. (2012) and Dumitru et al. (2012), that found that engagement mediated organisational citizenship behaviour in Romanian organisation. Biswas and Bhatnagar (2013), assessed the mediating role of employee engagement between person-organisation fit on the employee engagement outcomes; organisational commitment and job satisfaction. By using structural modelling equation (SEM), they found that employee engagement mediated the relationship between person- organisation fit and organisational commitment and job satisfaction. However, no empirical study has examined the mediating role of employee engagement on the relationship between person-job fit, person-team fit, person-organisation fit with employee engagement in a single framework. Therefore, this study hypothesized that:

**H5a:** Employee engagement mediates the relationship between person-job fit and employee ambidexterity.

**H5b:** Employee engagement mediates the relationship between person-team fit and employee ambidexterity.

**H5c:** Employee engagement mediates the relationship between person-organisation fit and employee ambidexterity.



**Figure 1: Research Framework**

## **RESEARCH METHOD**

For this research, the researcher chose a quantitative cross-sectional method using questionnaires adopted from previous researchers (Axtell, Holman, Unsworth, Wall, Waterson, & Harrington, 2000; Burch & Anderson, 2004) to examine the relationship between person-job fit, person-team fit, and person organisation fit on employees' ambidexterity and employees' engagement as shown in Table 1. In this study, the researcher intended to study graduate civil engineers in SMEs consulting firms based on the data obtain from the Board of Engineers Malaysia (BEM). Graduate engineers in civil engineering recorded the highest among the total number of graduate engineers with 33,667 from a total of 105,593 graduate engineers, followed by electrical, mechanical, chemical and other fields.

While for company with engineering consultancy practices, sole proprietorship recorded the highest with 1,721 establishments as shown in approximately around 17,210 employees. Therefore, this study focused on SMEs sole proprietorship and partnership engineering civil consulting firms. The unit of analysis was the individual employees of civil & structural engineers working in SMEs Civil & Structural engineering consulting firms in Malaysia. The researcher chose a non-probability sampling design -convenience sampling with a total of 106 samples. The researcher used the interval scale for all variables ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree". Prior to field data collection, this study gathered data in two phases; a pre-test, followed by pilot study to ensure that the questions were sensitive to the language and the cultures of the respondents, especially concerning the attitudinal and behavior measures (Sekaran & Bougie, 2010). Data screening was conducted to ensure that the data was entered correctly in the data file, followed by a reliability analysis, descriptive analysis, Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). This study executed a two-step procedure where all latent constructs were validated at first using Confirmatory Factor Analysis (CFA) before developing the structural model and executing SEM for further analysis as suggested by Awang, Lim, and Zainudin (2018).



**Table 1: Measurement for this Study**

Construct/No. of Items	Items	Source/Cronbach's Alpha/Scale
<b>Employee Ambidexterity/ 12</b>	<p><i>To what extent did you, in the last year engage in work related activities that can be characterised as follows?</i></p>	Axtell et al. (2000)
	Employee passive ambidexterity (suggestion- implementation orientation)	$\alpha = 0.77$
	1. New working methods or techniques (suggested within the last one year).	Scale: 1. Very little extent
	2. New products or products improvements (suggested within the last one year).	2. To a some extent
	3. New methods to achieve work targets (suggested within the last one year).	3. To a moderate extent
	4. New targets or objectives (suggested within the last one year)	4. To a great extent
	5. New methods to achieve work target (implemented within the last one year).	5. To a very great extent
	6. New information to any aspect of your work (implemented within the last one year).	
	7. Personally searched for new and better ways of doing jobs within the last one year.	
	<i>Employee active ambidexterity (employee personal development strategy-its organisational relevance orientation)</i>	
	8. Undertook activities that require learning new skills or gain knowledge within the last one year.	
	9. Identified way(s) to do your work better within the last one year.	
	10. New and better ways researched by you is of benefit to the company.	
	11. Activities engaged in by you that led to changes in the way of work benefited the company.	
	12. Ways to do work better identified by you that have benefited the company.	

Employee Engagement/ 18	<p>Physical Engagement</p> <ol style="list-style-type: none"> <li>1. I work with intensity on my job</li> <li>2. I exert my full effort to my job</li> <li>3. I devote a lot of energy to my job</li> <li>4. I try my hardest to perform well on my job</li> <li>5. I strive as hard as I can to complete my job</li> <li>6. I exert a lot of energy on my job.</li> </ol> <p><i>Emotional Engagement</i></p> <ol style="list-style-type: none"> <li>7. I am enthusiastic in my job</li> <li>8. I feel energetic at my job</li> <li>9. I am interested in my job</li> <li>10. I am proud of my job</li> <li>11. I feel positive about my work</li> <li>12. I am excited about my job</li> </ol> <p>Cognitive Engagement</p> <ol style="list-style-type: none"> <li>13. At work, my mind is focused about my job</li> <li>14. At work, I play a lot of attention to my job</li> <li>15. At work, I focused a great deal of attention to my job</li> <li>16. At work, I am absorbed by my job</li> <li>17. At work, I concentrate on my job</li> <li>18. At work, I devote a lot of attention to my job</li> </ol>	<p>Moore (2017)  <math>\alpha = 0.96</math></p> <p>Scale:  1. Strongly disagree  2. Disagree  3. Neutral  4. Agree  5. Strongly agree</p>
<b>Person-Job Fit/ 6</b>	<p><i>Needs-Supplies Fit</i></p> <ol style="list-style-type: none"> <li>1. There is a good fit between what my job offers me and what I am looking for in a job</li> <li>2. The attributes that I look for in job are fulfilled very well by my present job</li> <li>3. The job that I currently hold gives me just about everything that I want from a job</li> </ol> <p><i>Demands-Abilities Fit</i></p> <ol style="list-style-type: none"> <li>4. The match is very good between the demands of my job and my personal skills</li> <li>5. My abilities and training are a good fit with the requirements of my job</li> <li>6. My personal abilities and education provide a good match with the demands that my job places on me</li> </ol>	<p>Moore (2017)  <math>\alpha = 0.93</math></p> <p>Scale:  1. Strongly disagree  2. Disagree  3. Neutral  4. Agree  5. Strongly disagree</p>

<b>Person-Team Fit/ 19</b>	Participative Safety	Burch and Anderson (2004)
	<ol style="list-style-type: none"> <li>1. We have "we are in it together" attitude</li> <li>2. People in the team keep each other informed about work-related issues in the team</li> <li>3. There are real attempts to share information throughout the team</li> <li>4. There is a lot of give and take in the team</li> <li>5. We keep in touch with each other as a team</li> <li>6. This team is always moving towards the new development of new answers</li> </ol> <p>Support for Innovation</p> <ol style="list-style-type: none"> <li>7. The team is open and responsive to change</li> <li>8. People in the team are always searching for fresh, new ways of looking at problems</li> <li>9. Members of the team provide and share resources to help in the application of new ideas</li> <li>10. Team members provide practical support for new ideas and their application</li> <li>11. Team members provide practical support for new ideas and their application</li> <li>12. How clear you are with your team objectives?</li> </ol> <p>Vision</p> <ol style="list-style-type: none"> <li>13. How far do you agree with the team objectives?</li> <li>14. To what extent would you think other team members agree with team objectives?</li> <li>15. To what extent would you think members of your team were committed to the team objectives?</li> </ol>	<p><math>\alpha = 0.95</math></p> <p>Scale:</p> <ol style="list-style-type: none"> <li>1. Strongly disagree</li> <li>2. Disagree</li> <li>3. Neutral</li> <li>4. Agree</li> <li>5. Strongly agree</li> </ol>

	<p>Task Orientation</p> <p>16. Do your team colleagues provide useful ideas and practical help to enable you to do the job to the best of your ability?</p> <p>17. Are the team members prepared to question the basis of what the team is doing?</p> <p>18. Does the team critically appraise potential weaknesses in what it is doing in order to achieve the best possible outcome?</p> <p>19. Do members of the team build on one ideas in order to achieve the highest possible standard of performance?</p>	<p>Scale:</p> <p>1. Very little extent</p> <p>2. To some extent</p> <p>3. To a moderate extent</p> <p>4. To a great extent</p> <p>5. To a very great extent</p>
Person-Organisation Fit/ 5	<p>1. To what extent do you feel your values match or fit your organization?</p> <p>2. To what extent does your organization's objective reflect your own objectives?</p> <p>3. To what extent does the personality of your organization reflect your own personality?</p> <p>4. My current organization meets the needs I expect an organization to meet</p> <p>5. To what extent do your organization's values and culture provide a good fit with the things that you value in life?</p>	<p>Alniacik, Alniacik and Ackin (2013)</p> <p><math>\alpha = 0.95</math></p> <p>Scale:</p> <p>1. Very little extent</p> <p>2. To some extent</p> <p>3. To a moderate extent</p> <p>4. To a great extent</p> <p>5. To a very great extent</p>

**Table 2: Hypotheses for Testing Direct Effect and Method of Analysis**

	Direct Effect Hypothesis	Method of Analysis
H1	There is a relationship between Person-Job Fit and Employee Engagement.	Path Analysis in SEM
H2	There is a relationship between Person-Team fit and Employee Engagement.	Path Analysis in SEM
H3	There is a relationship between Person-Organisation Fit and Employee Engagement.	Path Analysis in SEM
H4	There is a relationship between Employee Engagement and Employee Ambidexterity.	Path Analysis in SEM

**Table 3: Hypotheses for Testing Mediator Effect and Method of Analysis**

	<b>The Hypothesis for testing Mediators</b>	<b>Method of Analysis</b>
H5a	Employee engagement mediates the relationship between person- job fit and employee ambidexterity.	Path Analysis in SEM and Bootstrapping
H5b	Employee engagement mediates the relationship between person- team fit and employee ambidexterity.	Path Analysis in SEM and Bootstrapping
H5c	Employee engagement mediates the relationship between person- organisation fit and employee ambidexterity.	Path Analysis in SEM and Bootstrapping

## RESULTS AND DISCUSSION

As shown in Table 4, from the total of 106 respondents, 71.7% (76) were male and 28.3% (30) with female. This indicated that male respondents were the majority in this study. Whereas for age group distribution, the descriptive analysis showed that 48.1% (51) of the responses came from the age group ranging from 20-30 years, followed by 44.3% (47) from the age group ranging from 31-40 years, and 7.5% (8) from the age group ranging from 41-50 years. For marital status, 59.4% (63) of the responses were received from single respondents and 40.6% from married respondents. This study had Malay respondents with 72.6% (77), followed by Chinese respondents with 26.4% (28) and other races with 0.9% (1). With regard to work location, the majority of the respondents were from Selangor with 74.5% (79), WP Kuala Lumpur with 15.1% (16), Johore with 4.7% (5), Negeri Sembilan and Pahang with 1.9% (2), Penang, and Sarawak with 0.9% (1). 100% (106) responses were obtained from Civil & Structural Graduate Engineers (GE). Whereas for the firm category, the majority of the respondents (72.6% or 77) were from private limited companies and 27.4% (29) respondents were from sole proprietorship companies. The majority of the respondents with 75.5% (80) were from engineering firm's with 5 employees to not more than 30, followed by 19.8% (21) with 30 to 75 and 4.7% (5) with less than 5. In terms of length of service, 46.2% (49) of the respondents had served their organisation for 1 to 3 years, followed by 4 to 6 years with 30.2% (32), 7 to 9 years with 10.4% (11), less than 1 year with 7.5% (8) and for more than 10 years with 5.7% (6). As for the educational level, the majority of the respondents were Bachelor Degree holders with 89.6% (95), and Master Degree holders with 10.4% (11).

**Table 4: Demographic Profile of the Respondents**

Demographic Variables		Frequency (N=106)	Percentage (%)
Gender	Male	76	71.7
	Female	30	28.3
Age	20-30 years	51	48.1
	31-40 years	47	44.3
	41-50 years	8	7.5
Marital Status	Single	63	59.4
	Married	43	40.6
Ethnic Group	Malay	77	72.6
	Chinese	28	26.4
	Others	1	0.9
Working State	Johore	5	4.7
	Negeri Sembilan	2	1.9
	Pahang	2	1.9
	Penang	1	0.9
	Sarawak	1	0.9
	Selangor	79	74.5
	WP Kuala Lumpur	16	15.1
Firm Category	Private Limited	77	72.6
	Sole Proprietorship	29	27.4
No. of Employees	Less than 5	5	4.7
	5 to not more than 30	80	75.5
	30 to 75	21	19.8
Length of Service	Less than 1 year	8	7.5
	1 to 3 years	49	46.2
	4 to 6 years	32	30.2
	7 to 9 years	11	10.4
Education	Bachelor's Degree	95	89.6
	Master's Degree	11	10.4

Individual CFA procedures was conducted to validate all four higher-order constructs namely employees’ engagement, employees’ ambidexterity, person-job fit and person-team fit because these constructs are too complicated to assemble and validate simultaneously in a pooled measurement model (Awang, 2015). Once these second-order constructs

were validated through individual CFA, the study transformed these second-order constructs into first-order constructs through the item- parceling procedure (Awang et al., 2018). These newly transformed first order-constructs were pooled together with the existing first-order constructs in the model to validate all constructs through the pooled-CFA procedure.

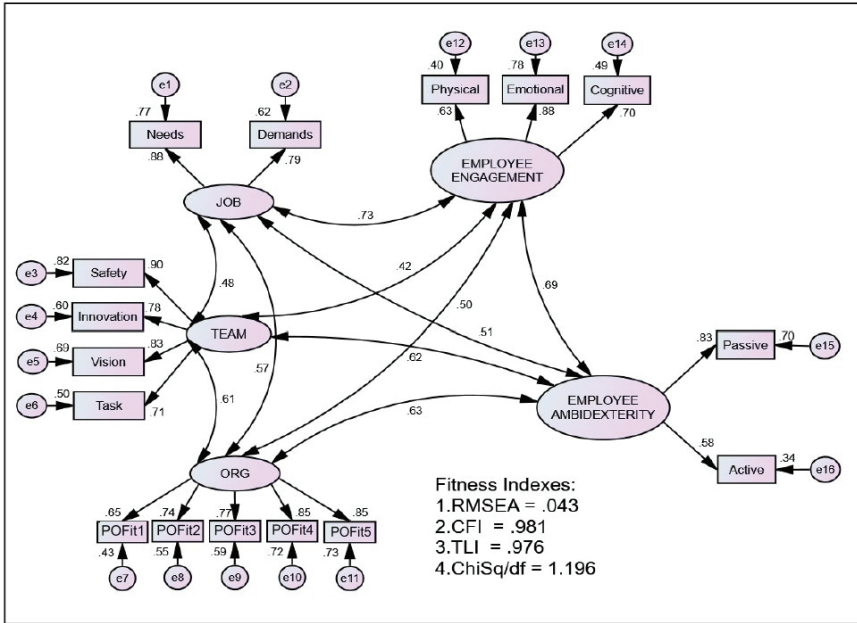
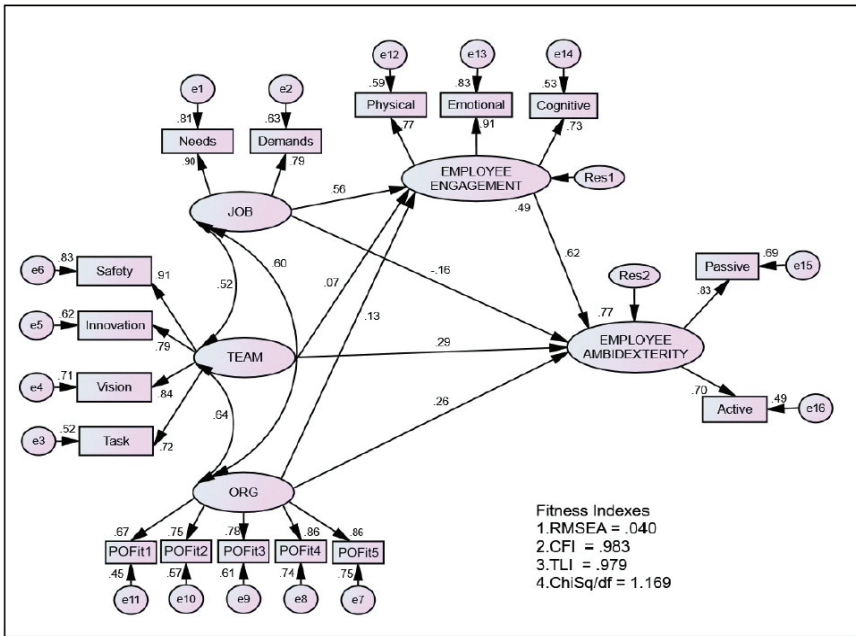


Figure 2: The Pooled CFA Result

Discriminant Validity assessment was conducted to ensure that no redundant constructs did not occur in the model. Referring to Table 5, it can be seen that the diagonal values in bold were higher than any other values in its row and its column. Therefore, Discriminant Validity was achieved. The values also met the threshold of Discriminant Validity. Therefore, the study concluded that Discriminant Validity for all constructs was achieved.

**Table 5: The Discriminant Validity Index Summary for all Constructs**

Construct	JOB	TEAM	ORG	ENGA	AMBIDEX
Job	0.92				
Team	0.48	0.86			
Organisation	0.57	0.61	0.78		
Engagement	0.73	0.42	0.50	0.82	
Ambidexterity	0.51	0.62	0.6	0.69	0.77



**Figure 3: The Standardized Regression Path Coefficient of the Model**

The regression path coefficients for all constructs show the  $\beta$  value for the model as show in Figure 4.



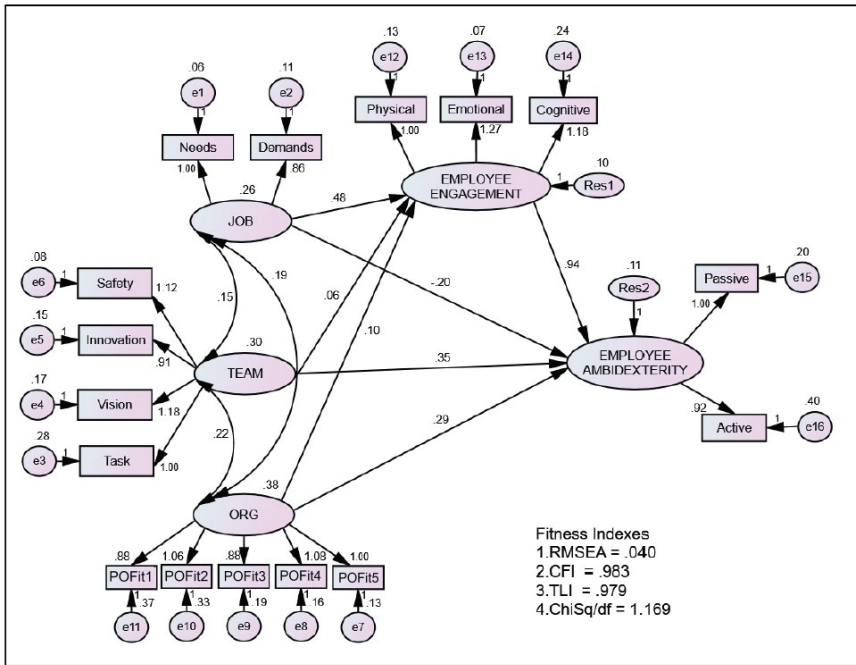


Figure 4: Regression Path Coefficient

The text output for every direct effect relationship in this study as shown by the model in Figure 4 is as per Table 6. Based on Table 6, the relationship between person-job fit and employees' engagement was significant with a p-value of <math><0.001</math>, employees' engagement to employees' ambidexterity was significant with a p-value of <math><0.001</math>, person-team fit to employee ambidexterity was significant with a p-value 0.015, and person-organisation fit to employees' ambidexterity was also significant with a p-value of 0.039. Other relationships were not significant in this study. The study employed the method of testing the mediation effects in the model as proposed by Awang (2014, 2015) and Awang et al. (2018) by using Bootstrapping to assess the standardized indirect effect as well as the standardized direct effect. Maximum Likelihood procedures were used by using 1000 bootstrap samples with the percentile confidence interval 95% and bias-corrected confidence interval 95%. The procedure for testing mediators for hypotheses as shown in Table 7 was carried out as outlined by Awang et al. (2018).

**Table 6: Regression Path Coefficient and Its Significance**

		Estimate	S.E.	C.R.	P	Result
Employee Engagement	<--Job	.485	.122	3.988	***	Significant
Employee Engagement	<--Team	.059	.098	.596	.551	Not Significant
Employee Engagement	<--Org	.096	.096	.999	.318	Not Significant
Employee Ambidexterity	<--Engagement	.939	.198	4.733	***	Significant
Employee Ambidexterity	<--Job	-.204	.188	-1.089	.276	Not Significant
Employee Ambidexterity	<--Team	.354	.145	2.442	.015	Significant
Employee Ambidexterity	<--Org	.285	.138	2.063	.039	Significant

**Table 7: Coefficient Determination or R2**

Endogenous Construct	R <sup>2</sup>	Conclusion
Employee Engagement	0.49	Person-Job Fit, Person-Team Fit, and Person-Organisation Fit construct explained about 49% of the Employees' Engagement
Employees' Ambidexterity	0.77	Person-Job Fit, Person-Team Fit, Person- Organisation Fit and Employees' Engagement explained about 77% of the Employees' Ambidexterity

The bootstrapping results as shown in Table 8 were consistent with the results of the above mediation testing method. Since the direct effect between person-team fit to employees' engagement and person-organisation fit to employees' engagement were not significant, the researcher decided not to further examine the mediation effect of these two constructs.

**Table 8: Bootstrapping Procedure to Confirm Mediation Test**

	Indirect Effect	Direct Effect
Bootstrapping Results	0.349	-0.157
Bootstrapping P-Value	0.002	0.273
Result	Significant	Not Significant
Mediation Type	Full Mediation since the direct effect is also significant	

## Discussion of Findings

*H1: There is a relationship between Person-Job Fit and Employee Engagement.* Based on the path analysis conducted, there was a relationship

between person-job fit and employee engagement. The finding of this study is congruent with Sulistiowati (2018) examining the effect of person-job fit on employee engagement among public and private lectures of higher educational learning in West Kalimantan, Indonesia, with the sample size of 160. The finding supports the previous research conducted by Cai et al. (2018) among technology company employees in China, examining the relationship of person-job fit and employee engagement with a larger sample size of 6179. The finding also supports the study conducted in Romania by Keratepe and Karadas (2016) in a hospitality industry with a sample size of 282. These studies showed that person-job fit influenced employee engagement. According to May, Gilson and Harter (2004), a worker's psychological condition plays an important role in employee engagement with his/her job and one of these psychological conditions is person-job fit (Juhdi et al., 2013). People who have high engagement to their job because of their skills and abilities are in accordance with the requirements of the job he/she does. Individuals who are fit with their job will feel confident with the work they do, with their roles in the job and tend to be engaged with their job (Saks & Gruman, 2011).

*H2: There is a relationship between Person-Team fit and Employee Engagement.* The finding showed that the relationship was not significant. The finding contradicted Cai et al. (2018) that found that person-team fit was significantly related to engagement and contrary to the studies by Memon, Salleh, Baharom and Harun (2014) that showed that when there is a high level of person-team fit, individuals will be more willing to engage in their job. As this study was conducted in SMEs engineering consulting firms, the result of the finding was expected as in SMEs engineering consulting firms have a small number of employees, the resources are managed efficiently where an engineer is expected to handle one project by himself. The term for team work is mostly between the engineers and the project team; for instance, developer's project managers, planners, architects, quantity surveyors and contractors. The usually have to handle the project independently where job sharing or project-team based is seldom practiced.

*H3: There is a relationship between Person-Organisation Fit and Employee Engagement.* The finding show that the relationship was not significant. The finding for this study contradicted Chhetri (2017), done among Nepalese employees in various industries that found that person-

organization-fit was positively related to employee engagement. The differences may be due to the sample of the respondents. This study focused on SMEs, where they often have employee issues due to their size and lack of emphasis on staff management (Anupma et. al., 2019), they might not have the capability to create an organisational culture within the firm where employees are embedded with the company vision and values. The majority of businesses, especially small businesses, have visions and missions, but do not apply them optimally in strategy implementation. Therefore, some small businesses' vision, mission and values are unclear to the employees that may be a hindrance to Person-Organisation Fit.

*H4: There is a relationship between Employee Engagement and Employee Ambidexterity.* The finding showed that there was a significant relationship between employee engagement and employee ambidexterity. The finding supported Ajayi et al. (2017), where employee engagement positively influenced employee ambidexterity in their study among SMEs shop-floor employees in Nigeria. The findings of both studies showed that within SMEs, engaged ambidexterity behaviour among employees can be achieved by having engaged employees.

*H5a: Employee engagement mediates the relationship between Person-Job Fit and Employee Ambidexterity.* Various previous studies have shown the positive outcome of employee's performance with the presence of work engagement as a mediator (Salanova & Schaufeli, 2008). Based on the finding for this study, it can be seen that employee engagement mediated the relationship between person-job fit and employee engagement. Full mediation occurred in this study where the direct effect between person-job fit and employee ambidexterity was not significant. Lewin's Theory explains that if the worker is comfortable with his job, he will tend to do the job effectively and strive to achieve the vision and mission of the organization (Ajayi et. al., 2017).

*H5b: Employee engagement mediates the relationship between Person-Team Fit and Employee Ambidexterity.* This hypothesis was rejected as the finding showed that no mediation occurred as no indirect relationship between person-team fit and employee engagement.

*H5c: Employee engagement mediates the relationship between Person-Organisation Fit and Employee Ambidexterity.* The hypothesis was rejected as the finding showed that no mediation occurred as was no indirect relationship between person-organisation fit and employee engagement for this mediation to occur.

**Table 9: Summary of Hypothesis and Results**

	<b>Direct Effect Hypothesis</b>	<b>Decision</b>
<b>H1</b>	There is a relationship between Person-Job Fit and Employee Engagement.	Supported
<b>H2</b>	There is a relationship between Person-Team fit and Employee Engagement.	Not Supported
<b>H3</b>	There is a relationship between Person-Organisation Fit and Employee Engagement.	Not Supported
<b>H4</b>	There is a relationship between Employee Engagement and Employee Ambidexterity.	Supported
<b>H5a</b>	Employee engagement mediates the relationship between person-job fit and employee ambidexterity.	Supported
<b>H5b</b>	Employee engagement mediates the relationship between person- team fit and employee ambidexterity.	Not Supported
<b>H5c</b>	Employee engagement mediates the relationship between person- organisation fit and employee ambidexterity.	Not Supported

## CONCLUSION

The findings suggested that employees' engagement level increases when there is a fit between their job and their abilities. Employees' engagement mediates the relationship between person-job fit and employees' ambidexterity, where employees' ambidexterity level increases when they are engaged with the job. These findings are aligned with the Job Demand-Resources (J-R) Model by Bakker and Demerouti (2008), where engaged employees are those employees who have high levels of job-demand and/or personal resources. Furthermore, when employees fit with the team and the organisation, they will be more involved in exploration and exploitation activities within the organisation. These findings support the Social Exchange Theory where according to this theory, the relationships between employees and the organization are based on interdependence norm. This is when employees feel that they are being treated well and valued by their organization, they will be more likely to respond to their organization (Alfes, Shantz, Truss, & Soane, 2013). The findings study

can be applied for SMEs business owners in understanding the appropriate determinants of employees' engagement and employees' ambidexterity that will promote organisational growth and survival. Organisational growth and continuous survival can be improved when employees are encouraged to introduce new changes to exploit their current competitive advantage, and support the exploration of new opportunities for future competitive advantage. Further studies are recommended on employees' engagement and ambidexterity within SMEs to look for other variables that influence employees' engagement and ambidexterity.

## REFERENCE

- Ajayi, O. M., Odusanya, K., & Morton, S. (2017). Stimulating employee ambidexterity and employee engagement in SMEs. *Management Decision*, 55(4), 662-680. doi:10.1108/MD-02-2016-0107
- Alfes, K., Shantz, A. D., Truss, C., & Soane, E.C. (2013). The link between perceived human resource management practices, engagement and employee behavior: A moderated mediation model. *International Journal of Human Resource Management*, 24(2), 330- 351.
- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management*, 63(3), 308-323.
- Anupama, T., Sujatha, P., & Reddy, T. N. (2019). Job satisfaction and employee engagement – contemporary tools to eliminate stress among work force in an organization. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(3), 5449-5451.
- Awang, Z. (2014). *Research Methodology and Data Analysis* (2nd ed.). Universiti Teknologi Mara, UiTM Press.
- Awang, Z. (2015). *SEM made simple: A gentle approach to learning Structural Equation Modelling*. MPWS Rich Resources, Bandar Baru Bangi.

- Awang, Z., Afthanorhan, A., Mohamad, M., & Asri, M.A.M. (2015). An evaluation of measurement model for medical tourism research: The confirmatory factor analysis approach. *International Journal of Tourism Policy*, 6(1), 29. doi:10.1504/IJTP.2015.075141
- Awang, Z., Lim, S. H., & Zainudin, N. F. S. (2018). *Pendekatan mudah SEM-Structural Equation Modelling*. MPWS Rich Resources, Bandar Baru Bangi.
- Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., Waterson, P. E., & Harrington, E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational and Organizational Psychology*, 73(3), 265–285.
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Biswas, S., & Bhatnagar, J. (2013). Mediator analysis of employee engagement: role of perceived organizational support, P-O fit, organizational commitment and job satisfaction. *Vikalpa*, 38(1), 27-40.
- Burch, G. S. J., & Anderson, N. (2004). Measuring person-team fit: Development and validation of the team selection inventory. *Journal of Managerial Psychology*, 19(4), 406–426.
- Caniëls, M. C., & Assen, M. F. (2019). How Motivational Orientations are Related to Ambidexterity. *Kybernetes*, 48(10), 2177-2189.
- Cao, Q., Simsek, Z., & Zhang, H. (2010). Modelling the joint impact of the CEO and the TMT on organizational ambidexterity. *Journal of Management Studies*, 47(7), 1272-1296.
- Chhetri, S. B. (2017). Predictors and outcomes of employee engagement: empirical study of Nepali employees. *Journal of Business and Management Research*, 2(1-2), 14-32.
- Construction Industry Development Board, Annual Report (2021).

- De Cooman, R., Vantilborgh, T., Bal, M., & Lub, X. (2016). Creating inclusive teams through perceptions of supplementary and complementary person–team fit: examining the relationship between person–team fit and team effectiveness. *Group Organizational Management, 41*, 310–342.
- DeRue, D. S., & Hollenbeck, J. R. (2007). The search for internal and external fit in teams. In C. Ostroff & T. A. Judge (Eds.), *Perspectives on organizational fit* (pp. 259–285). Lawrence Erlbaum Associates Publishers.
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal, 47*(2), 209–226.
- Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008). The job demands-resources model: a three-year cross-lagged study of burnout, depression, commitment, and work engagement. *An International Journal of Work, Health & Organisations, 22*(3), 224–241.
- Hamid, S. N. A., & Yahya, K. K. (2011). Relationship between person-job fit on employees' work engagement: a study among engineers in semiconductor companies in Malaysia. *International Journal of Finance and Management, 1*(3), 184–254.
- Hanaysha, J. (2016). Examining the effects of employee empowerment, teamwork, and employee training on organizational commitment. *Procedia-Social and Behavioral Sciences, 229*, 298–306.
- Handayani, S., Anggraeni, A.I., Andriyansah, Suharnomo, E., & Rahardja, E. (2017). Analysis of antecedent and consequence of employee engagement in small and medium-sized enterprises in Central Java, Indonesia. *European Research Studies, XX*(3A), 500–510.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692–724.
- Karatepe, O.M. (2013). High-performance work practices, work social support and their effects on job embeddedness and turnover intentions.



*International Journal of Contemporary Hospitality Management*, 25(6), 903-921.

- Kao, Y-L., & Chen, C-F. (2016). Antecedents, consequences and moderators of ambidextrous behaviours among frontline employees. *Management Decisions*, 54(8), 1846-1860.
- Kim, W., Kolb, J. A., & Kim, T. (2013). The relationship between work engagement and performance a review of empirical literature and a proposed research agenda. *Human Resource Development Review*, 12(3), 248-276. doi:10.1177/1534484312461635
- Kristof-Brown, A. L. (1996). Person–organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49,1–49.
- Kristof-Brown, A. L. (2000). Perceived applicant fit: Distinguishing between recruiters' perceptions of person–organization fit and person–job fit. *Personnel Psychology*, 53, 643–671.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, D. J. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person- group and person-supervisor fit. *Personnel Psychology*, 58, 281-342.
- Kristof-Brown, A. L., & Guay, R. P. (2011). *Person-environment Fit*. *APA Handbook of Industrial and Organizational Psychology*. Washington, DC: American Psychological Association, 3–50.
- Kristof-Brown, A. L., Seong, J. Y., Degeest, D. S., Park, W., & Hong, D. (2014). Retracted: a multilevel investigation of person-group fit with individual-level and team-level outcomes. *Journal of Organizational Behavior*, 35(7), 969-989.
- Kwon, K., & Kim, T. (2020). An integrative literature review of employee engagement and innovative behavior: Revisiting the JD-R model. *Human Resource Management Review*, 30(2).

- Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C., & Lin, C. C. (2020). Transformational leadership and job performance: the mediating role of work engagement. *SAGE Open*, 10(1).
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management* 32(5), 646-672. doi:10.1177/0149206306290712
- May, D. R., Gilson, R. L., & Harter, L. M. (2004). The Psychological Conditions of Meaningfulness, Safety and Availability and the Engagement of the Human Spirit at Work. *Journal of Occupational and Organizational Psychology*, 77(1), 11– 37.
- Memon, M. A., Salleh, R., Baharom, M. N. R., & Harun, H. (2014). Person-organization fit and turnover intention: The mediating role of employee engagement. *Global Business Management Research*, 6, 205–209.
- Memon, M. A., Salleh, R., & Baharom, M. N. R. (2014). Linking person-job fit, person- organisation fit, employee engagement and turnover intention: Three-step conceptual model. *Asian Social Science*, 11(2), 313–320.
- Mohd, I. H., Shah, M. M., & Zailan, N. S. (2016). How work environment affects the employee engagement in a telecommunication company. *BE-ci 2016: 3<sup>rd</sup> International Conference on Business and Economics*.
- Mom, T. J., Van Den Bosch, F. A., & Volberda, H. W. (2007). Investigating managers' exploration and exploitation activities: The influence of top-down, bottom-up, and horizontal knowledge inflows. *Journal of Management Studies*, 44(6), 910–931.
- Mom, T. J., Van Den Bosch, F. A., & Volberda, H. W. (2009). Understanding variation in managers' ambidexterity: Investigating direct and interaction effects of formal structural and personal coordination mechanisms. *Organization Science*, 20(4), 812-828. doi:10.1287/orsc.1090.0427

- Mom, T. J., Fourné, S. P. L., & Jansen, J. J. P. (2015). Managers' work experience, ambidexterity, and performance: The contingency role of the work context. *Human Resource Management, 54*, 133-153.
- Mone, E. M., & London, M. (2018). *Employee Engagement through Effective Performance Management: A Practical Guide for Managers*. 2<sup>nd</sup> Edition. New York: Routledge.
- Nguyen, C. N. (2018). Individual ambidexterity, motivating language, and employee individual outcomes: a cross-country analysis. *Theses and Dissertations, 87*.
- Othman, S.A., & Mahmood, N. H. N. (2019). Linking employee engagement towards individual work performance through human resource management practice: From high potential employee's perspectives. *Management Science Letters, 9*(7), 1083-1092.
- Piasentin, K. A., & Chapman, D. S. (2007). Perceived similarity and complementary fit as predictors of subjective person-organization fit. *Occupational and Organizational Psychology, 80*(2), 341–354.
- Priyono, A., Idris, F., & Lim, S. A. H., (2020). Achieving ambidexterity in internationalization: Analysis of how SMEs cope with tensions between organizational agility-efficiency. *Journal of Open Innovation, 6*(4), 188.
- Rahmadani, V. G., & Sebayang, I. R. (2017). The influence of person-organization fit and person-job fit on work engagement among policemen in Sumatera Utara. *International Journal of Management Science and Business Administration, 4*(1), 45-51.
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management, 34*(3), 375-409.
- Sahni, J. (2021). Employee engagement among millennial workforce: empirical study on selected antecedents and consequences. *SAGE Open, 11*(1), 1–13.

- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619.
- Saks, A. M., & Gruman, J. A. (2011). Performance management and employee engagement. *Human Resource Management Review* 21(2), 123-136. doi:10.1016/j.hrmr.2010.09.004
- Saks, A. M., & Gruman, J. A. (2014). What do we really know about employee engagement?. *Human Resource Development Quarterly*, 25(2), 155–182.
- Salanova, M., Lorente, L., Chambel, M. J., & Martínez, I. (2011). Linking transformational leadership to nurses' extra-role performance: The mediating role of self-efficacy and work engagement. *Journal of Advanced Nursing*, 67(10), 2256-2266.
- Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behavior. *The International Journal of Human Resource Management*, 19(1), 116–131.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*; 25(3), 293–315.
- Schnellbacher, B., Heidenreich, S., & Wald, A. (2019). Antecedents and effects of individual ambidexterity - a cross-level investigation of exploration and exploitation activities at the employee level. *European Management Journal*, 37, 442-454.
- Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill-Building Approach* (5th ed.). Haddington: John Wiley & Sons.
- Seong, J. Y., Kristof- Brown, A. L., Park, W.-W., Hong, D.-S., & Shin, Y. (2015). Person-group fit: Diversity antecedents, proximal outcomes, and performance at the group level. *Journal of Management*, 41(4), 1184-1231.

- Shuck, B., Reio, T. G., & Rocco, T. S. (2011). Employee engagement: An examination of antecedent and outcome variables. *Human Resource Development International, 14*(4).
- Sorenson, S., & Garman, K. (2013). How to tackle U.S. employees' stagnating engagement. *Business Journal*. <http://businessjournal.gallup.com/content/162953/tackle-employees-stagnating-engagement.aspx>
- Sulea, C., Virga, D., Maricutoiu, L., Schaufeli, W., Zaborila D. C., & Sava, F. (2012). Work engagement as mediator between job characteristics and positive and negative extra role behaviors. *Career Development International, 17*(3), 188-207.
- Sung, S. H., Seong, J. Y., & Kim, Y. G. (2020). Seeking sustainable development in teams: Towards improving team commitment through person-group fit. *Sustainability 12*(1). doi:10.3390/su12156033
- Thompson, K. R., Lemmon, G., & Walter, T. J. (2015). Employee Engagement and Positive Psychological Capital. *Organizational Dynamics 44*(3). doi:10.1016/j.orgdyn.2015.05.004
- Torres, J. P., Drago, C., & Aqueveque, C. (2015). Knowledge inflows effects on middle managers' ambidexterity and performance. *Management Decision, 53*(10), 2303–2320.
- Tuckey, M. R., Bakker, A. B., & Dollard, M. F. (2012). Empowering leaders optimize working conditions for engagement: A multilevel study. *Journal of Occupational Health Psychology, 17*(1), 15-27.
- Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for managing ambidexterity: A review and research agenda. *International Journal of Management Reviews, 15*(3), 317-332.
- Tushman, M., & O'Reilly, C. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review, 38*(4).
- Van Mierlo, H., & Bakker, A. B. (2018). Crossover of engagement in groups. *The Career Development International, 23*(1), 106–118.

Van Vuuren, M., Veldkamp, B. P., Jong, M. D., & Seydel, E. R. (2007). The congruence of actual and perceived person-organization fit. *The International Journal of Human Resource Management*, 18(10), 1736-1747.

Zhang, Y., Wei, F., & Horne, C. V. (2018). Individual ambidexterity and antecedents in a changing context. *International Journal of Innovation Management*, 23(3). doi:10.1142/S136391961950021X

## APPENDIX 1

### Measurement for the Study

Construct/No. of Items	Items	Source/Cronbach's Alpha/Scale
Employee Ambidexterity/ 12	<p><i>To what extent did you, last year engaged in work related activities that can be characterised as follows?</i></p> <p>Employee passive ambidexterity (suggestion- implementation orientation)</p> <ol style="list-style-type: none"> <li>1. New working methods or techniques (suggested within the last one year).</li> <li>2. New products or products improvements (suggested within the last one year).</li> <li>3. New methods to achieve work targets (suggested within the last one year).</li> <li>4. New targets or objectives (suggested within the last one year)</li> <li>5. New methods to achieve work target (implemented within the last one year).</li> <li>6. New information to any aspect of your work (implemented within the last one year).</li> <li>7. Personally searched for new and better ways of doing jobs within the last one year.</li> </ol> <p><i>Employee active ambidexterity (employee personal development strategy-its organisational relevance orientation)</i></p> <ol style="list-style-type: none"> <li>8. Undertook activities that require learning new skills or gain knowledge within the last one year.</li> <li>9. Identified way(s) to do your work better within the last one year.</li> <li>10. New and better ways researched by you is of benefit to the company.</li> <li>11. Activities engaged in by you that led to changes in the way of work benefited the company.</li> <li>12. Ways to do work better identified by you that have benefited the company.</li> </ol>	<p>Axtell et al. (2000)</p> <p><math>\alpha = 0.77</math></p> <p>Scale:</p> <ol style="list-style-type: none"> <li>1. Very little extent</li> <li>2. To a some extent</li> <li>3. To a moderate extent</li> <li>4. To a great extent</li> <li>5. To a very great extent</li> </ol>

Employee Engagement/ 18	<p>Physical Engagement</p> <ol style="list-style-type: none"> <li>1. I work with intensity on my job</li> <li>2. I exert my full effort to my job</li> <li>3. I devote a lot of energy to my job</li> <li>4. I try my hardest to perform well on my job</li> <li>5. I strive as hard as I can to complete my job</li> <li>6. I exert a lot of energy on my job.</li> </ol> <p><i>Emotional Engagement</i></p> <ol style="list-style-type: none"> <li>7. I am enthusiastic in my job</li> <li>8. I feel energetic at my job</li> <li>9. I am interested in my job</li> <li>10. I am proud of my job</li> <li>11. I feel positive about my work</li> <li>12. I am excited about my job</li> </ol> <p><i>Cognitive Engagement</i></p> <ol style="list-style-type: none"> <li>13. At work, my mind is focused about my job</li> <li>14. At work, I play a lot of attention to my job</li> <li>15. At work, I focused a great deal of attention to my job</li> <li>16. At work, I am absorbed by my job</li> <li>17. At work, I concentrate on my job</li> <li>18. At work, I devote a lot of attention to my job</li> </ol>	<p>Moore (2017)</p> <p><math>\alpha = 0.96</math></p> <p>Scale:</p> <ol style="list-style-type: none"> <li>1. Strongly disagree</li> <li>2. Disagree</li> <li>3. Neutral</li> <li>4. Agree</li> <li>5. Strongly agree</li> </ol>
Person-Job Fit/ 6	<p><i>Needs-Supplies Fit</i></p> <ol style="list-style-type: none"> <li>1. There is a good fit between what my job offers me and what I am looking for in a job</li> <li>2. The attributes that I look for in job are fulfilled very well by my present job</li> <li>3. The job that I currently hold gives me just about everything that I want from a job</li> </ol> <p><i>Demands-Abilities Fit</i></p> <ol style="list-style-type: none"> <li>4. The match is very good between the demands of my job and my personal skills</li> <li>5. My abilities and training are a good fit with the requirements of my job</li> <li>6. My personal abilities and education provide a good match with the demands that my job places on me</li> </ol>	<p>Moore (2017)</p> <p><math>\alpha = 0.93</math></p> <p>Scale:</p> <ol style="list-style-type: none"> <li>1. Strongly disagree</li> <li>2. Disagree</li> <li>3. Neutral</li> <li>4. Agree</li> <li>5. Strongly disagree</li> </ol>



Person-Team Fit/ 19	<i>Participative Safety</i>	Burch and Anderson (2004)
	1. We have "we are in it together" attitude 2. People in the team keep each other informed about work-related issues in the team 3. There are real attempts to share information throughout the team 4. There is a lot of give and take in the team 5. We keep in touch with each other as a team 6. This team is always moving towards the new development of new answers	$\alpha = 0.95$
	<i>Support for Innovation</i>	Scale: 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree
	7. The team is open and responsive to change 8. People in the team are always searching for fresh, new ways of looking at problems 9. Members of the team provide and share resources to help in the application of new ideas 10. Team members provide practical support for new ideas and their application 11. Team members provide practical support for new ideas and their application 12. How clear you are with your team objectives?	
	<i>Vision</i>	
	13. How far you agree with the team objectives? 14. To what extent would you think other team members agreed with team objectives? 15. To what extent would you think members of your team committed to the team objectives?	

*Task Orientation*

16. Do your team colleague provide useful ideas and practical help to enable you to do the job to the best of your ability?

17. Are the team members prepared to question the basis of what the team is doing?

18. Does the team critically appraised potential weaknesses in what it is doing in order to achieve the best possible outcome?

19. Do members of the team build on one another's ideas in order to achieve the highest possible standard of performance?

Scale:

1. Very little extent
2. To some extent
3. To a moderate extent
4. To a great extent
5. To a very great extent

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Person-Organisation Fit/ 5	<ol style="list-style-type: none"> <li>1. To what extent do you feel your values match or fit your organization?</li> <li>2. To what extent do your organization's objective reflect your own objectives?</li> <li>3. To what extent the personality of your organization reflects your own personality?</li> <li>4. My current organization meets the needs I expect an organization to meet</li> <li>5. To what extent your organization's values and culture provide a good fit with the things that you value in life?</li> </ol>	<p>Alniacik, Alniacik and Ackin (2013)</p> <p><math>\alpha = 0.95</math></p> <p>Scale:</p> <ol style="list-style-type: none"> <li>1. Very little extent</li> <li>2. To some extent</li> <li>3. To a moderate extent</li> <li>4. To a great extent</li> <li>5. To a very great extent</li> </ol>
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