

A Structural Equation Model on Creativity and Innovation of Library Personnel in Davao Region

¹Archie B. Fajagutana, PhD, ²Eugenio S. Guhao, Jr., DM

¹College Librarian, Kolehiyo ng Pantukan, Pantukan, Davao de Oro,

²Dean, Professional Schools, University of Mindanao, Davao City,

Abstract: *The purpose of the study was to establish the best fit model of creativity and innovation as influenced by organizational commitment, employee engagement and work environment of library personnel in Davao Region. A total of 400 library personnel were selected using the universal sampling technique. Structural equation modelling was used to find the best fit model. The results showed that organizational commitment, employee engagement and work environment have a significant relationship with creativity and innovation of library personnel. Moreover, the best fit Model 4 depicted the direct causal relationship of organizational commitment, employee engagement and work environment was found to be the final and best fit model on creativity and innovation of library personnel.*

Keywords: *creativity and innovation, employee engagement, organizational commitment, work environment*

I. Introduction

Libraries are challenged to embrace innovation and creativity. This presents the importance of organizational efficiency as well as threats and pressures to reinvent librarians by updating programs and facilities to stay essential in the organization (Gichohi, 2014). Brundy (2015) confirmed that librarians are under pressure to make prudent choices on how to adopt and implement innovations in the library. Serrat (2017) also believed that the absence of creativity and innovation leads to stagnation of staff and leave an organization incapable of performing or meeting change. In some instances, creativity and innovation are hampered and overlooked (Atata, Eyene, & Sam, 2015; Carine, Shukla, & Oduor, 2015; Oluo, Anyanwu, Ossai-onah, & Amaechi, 2015) as it needs staff to modify, think, behave differently and deviate from standard procedures. This unprecedented challenge and unparalleled change restrict creative production for staff (Walter, 2012) where creativity and innovation is an inevitable requirement (Jantz, 2013).

Creativity and innovation are continuous improvement processes that change the way things are accomplished in the library (Atata, Oji, & Tom, 2014) and become the main organizational survival requirements (Bilal, Ahmad, & Majid, 2018). The most important considerations in creating and maintaining a competitive advantage are creativity and innovation (Iqbal, 2011; Maier, Olaru, & Maier, 2013) and these are crucial for excellent performance in any organization (Anderson, Potocnik, & Zhou, 2014). Furthermore, creativity and innovation help enhance and improve the quality of library services and generate possibilities for librarians to reposition their roles for viable growth (Onuoha, Anyanwu, Ossai-onah, & Amaechi, 2015). Jamiu and Ndubuisi (2017) stressed that the creative and innovative efforts of the organization's staff change certain elements of their work just to meet organizational objectives.

The link between organizational commitment and creativity and innovation is emphasized by Dousti, Moosaci, and Yousfi (2013) who stated that organizational commitment has a significant impact on creativity. A committed employee who stays with the organization performs and displays innovative behavior. Certainly, an organization needs an employee who can innovate, which is of high importance and necessity. The link between employee engagement and creativity and innovation is highlighted by Gichohi (2014). He pointed out that employee engagement helps unleash creativity and innovation of employees in the workplace. As such, engaged employees are pleased with their duties and responsibilities that lead them to think creatively. The link between work environment and creativity and innovation is underscored by Serrat (2017), who contended that work environment has the ability to induce creativity and innovation among employees in the organization. A good environment and well-built workplace is considered as drivers to more innovative and creative employees.

It is in the above context that the researcher decided to conduct the study dealing with the three variables as constructs of creativity and innovation. The study also embarked on the premise that libraries have not yet fully integrated innovation and creativity. The library professional and practice scenario is no longer what it used to be, and we cannot pretend to be unaware of the library staff's innovative and creative skills in transforming the way information and other library services are delivered. Moreover, since there has been no research undertaken covering all the above-

mentioned variables among library staff in the Philippines, especially in the Davao region, this current study aimed to produce a model for creativity and innovation that hopes to offer a fresh direction specifically to library staff, making this research an important contribution to a new body of knowledge. In this light, the researcher is prompted to conduct this study.

Research Objective

This study was conducted to determine the best fit model that predicts creativity and innovation of library personnel in Davao Region. This study specifically has the following objectives:

1. To know the level of organizational commitment of library personnel in the Davao Region in terms of:
 - 1.1 affective commitment;
 - 1.2 continuance commitment; and
 - 1.3 normative commitment.
2. To identify the level of employee engagement of library personnel in the Davao Region in terms of:
 - 2.1 vigor;
 - 2.2 dedication; and
 - 2.3 absorption.
3. To ascertain the level of work environment of library personnel in Davao Region in terms of:
 - 3.1 work pressure;
 - 3.2 task orientation;
 - 3.3 supervisory support; and
 - 3.4 physical comfort.
4. To find out the level of creativity and innovation of library personnel in Davao Region in terms of:
 - 4.1 problem identification and information searching;
 - 4.2 atmosphere for creativity and innovation;
 - 4.3 leader encouragement for creativity and innovation; and
 - 4.4 empowerment.
5. To determine the significant relationship between:
 - 5.1 organizational commitment and creativity and innovation;
 - 5.2 employee engagement and creativity and innovation; and
 - 5.3 work environment and creativity and innovation.
6. To recognize the best fit model that predicts creativity and innovation of library personnel in the Davao Region.

Hypothesis

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between:
 - 1.1 organizational commitment and creativity and innovation;
 - 1.2 employee engagement and creativity and innovation; and
 - 1.3 work environment and creativity and innovation.
2. There is no best fit model that predicts creativity and innovation of library personnel in Davao Region.

Review of Related Literature

Written in this section are the review of studies for each variable that have been conducted in international and local settings, and that have made a substantial contribution to the conceptualization of this study. Below is an ephemeral review of the related studies. The review of literature starts with organizational commitment (Ajie, Soyemi, & Omotunde, 2015) with the following indicators: affective, continuance and normative commitment; followed by employee engagement (Li, 2016) with vigor, dedication and absorption as indicators; then work environment (Mayowa-Adebara & Aina, 2016) with indicators such as work pressure, task orientation, supervisory support and physical comfort; and lastly, creativity and innovation (Gichohi, 2014) with the following indicators: problem identification and information searching, atmosphere for creativity and innovation, leader encouragement for creativity and innovation, and empowerment.

Organizational Commitment

Commitment is an internal decision which can never be forced on anybody in the organization (Adio & Popoola, 2010; Dixit & Bhati, 2012). Dabas and Pandey (2015) have described organizational commitment as a state that connects the person to the organization in which they operate. In the same light, Al Zefeite and Mohamad (2017) view organizational commitment as the degree to which staff identify with their organizations and their attachment and willingness to remain in the organization. While Mangundjaya (2012) argued that organizational commitment is a way of thinking of individuals about how much of their value and objectives are aligned with the organization, how to resolve disputes, and how to be attached to the organization.

Organizational commitment, according to Ahmad, Amin, and Ismail (2009) and Ajie et al. (2015) is a psychological state that characterizes the relationship between the employee and his organization and its implications for the employee's decision to stay or continue to work in the organization. For Umamaheswari and Krishnan (2016) organizational commitment is attracting attention owing to its capacity to generate desirable results for individuals and the organization. It is an emotional reaction measured by individuals' behaviors, beliefs and attitudes and can range from very low to very high forms anywhere. Ajie et al. (2015) stressed that it also reflects the attitude of people towards the organization's goals and objectives, as well as their intention to stay.

Organizations need to be innovative to compete with their competitors and they need committed employees to stay in the organization with appropriate performance and innovation (Hakimian, Farid, Mohd, & Nair, 2016). Committed employees enjoy being in the organization and consequently this commitment means focusing on organizational goals and applying more effort and positive performance that leads these employees to display innovative behavior. Committed employees work diligently to promote the services of the organization and strive for ongoing enhancement (Mayowa-Adebara & Aina, 2016).

Committed employees can also be described as those who are highly involved with their organizations and would like to remain in the organization (Ahmad et al., 2009). Having committed employees are advantageous to the organization as these people are less likely to resign and tend to be present and more ready to share and make sacrifices for the sake of their organization. In addition, individuals who showed higher commitment to their organization were also found to have higher loyalty and lower work stress, higher performance and much more willing to accept organizational change. In contrast, the research of Rostami, Veismoradi and Akbari (2012) disclosed that if individuals do not feel any commitment, they will not accept order and discipline under any condition.

Meanwhile, Susanty, Jie, and Miradipta (2013) pointed out that employees are considered to be committed to an organization if they voluntarily continue their connection with the organization and make significant attempts to attain organizational objectives. The high level effort exerted by staff with high levels of organizational commitment would lead to greater rates of person and organizational level efficiency. Bozlagan, Dogan, and Daoudov (2010) also stated that organizational commitment extends beyond the traditional concept of commitment. It involves a more active kind of commitment. Employees are interested in making their personal contribution to the organization's well-being. Therefore, organizational commitment reflects not only their expressions and statements but also their actions and deeds.

Organizational commitment is a matter of concern for the organization's better job setting for both worker and employer (Ogunlana, Oshinaike, & Ibrahim, 2016). It improves the employee's attitude towards job and organizational retention. Organizational commitment is a method and ongoing process that shows the dedication of the staff to the organization and its ongoing accomplishment. Organizational commitment is merely a triangle that demonstrates the recognition, involvement and dedication of an employee to a particular organization. In the research undertaken by Njenga, Kamau, and Njenga (2015) job environment is a main motivator for employee commitment; excellent working climate allows staff to work harder and attain organizational objectives. Organizations should therefore equip employees with the right tools and equipment for the job.

The employees' commitment to the organization is also related to their behavior towards other members of the organization as well as trust, and employees will be committed to the organization if there is a healthy relationship with their colleagues (Wong & Tong, 2014). Organizations can motivate positive conduct and promote stronger interaction between employees by enabling them to share the objectives and values of organizations, understanding that doing so will benefit them. Similarly, as Awolusi (2014) studied the commitment level of employees in the banking industry in Nigeria, the result indicated that most of respondents particularly junior employees, thought that they were not correctly driven, hence bad worker commitment.

On the other side, there must be adequate motivation in the form of rewards for employees to be committed to their job and organizations (Akinyemi & Ifijeh, 2013). If the employees find that they cannot get the desired reward, they will surely leave the organization and join another. If this is not feasible, they accept those rewards which they can obtain and may at the same moment feel less committed to the organization. It also becomes evident in Sheikh's study (2017) that developing commitment among faculty members had important implications for academic organizations. He further stressed that highly committed faculty members are eager to stay with their present organization and perform at higher level of commitment compared to their uncommitted peers. As such, highly committed faculty members showed reduced absenteeism rates as well as more enthusiasm in their work.

Consequently, organizations can attain their goals and objectives by having employees with high levels of organizational commitment (Al Zefeiti & Mohamad, 2017). In fact, the organization strives to increase the organizational commitment of employees as it is expected that employees who are psychologically attached to an organizational will be more satisfied and subsequently more productive (Morrow, 2011). In Abigail and Oluwatobi's research (2015), it was

disclosed that the desire for fulfillment and engagement are the same regardless of staff level and skills. The respondents in this study affirmed that they had a high degree of organizational commitment and satisfaction with work-self, supervision, salary, co-workers and promotional opportunities. However, library managers need to work hard in hand with human resources department to attract, select, recruit and retain library staff ready to be committed in their jobs. Steps to improve commitment should not be overlooked.

In terms of organizational commitment among librarians, Ajie et al. (2015) argued that commitment is essential to the survival and satisfaction of the mandate of any academic library. To fulfill this mandate, they must be committed to the mission of the library. Commitment can be defined as an intention to continue in an action course. The study of Ademodi and Adepoju (2009) also revealed that if librarians lack the abilities and expertise, it will endanger their approach to work and service delivery and how information and other library services are delivered. It was also noted in the research of Amusa, Iyoro, and Olabisi (2013) that when librarians showed lack of dedication and commitment, this leads to poor user services. These librarians' adverse dispositions are linked with their job settings and other occupational stress they experience.

Moreover, organizational commitment portrays the feeling of dedication, readiness to work hard, and intent to stay with the organization (Susanty et al., 2013). In addition, Anttila (2014) averred that organizational commitment has the ability to impact the well-being of staff. However, as exposed in the study of Ortiz, Lau, and Qin (2013), disengagement erodes the enthusiasm and commitment of the organization's employees. On the other side, Bonds (2017) shows that more than 68 percent of U.S. employees were disengaged at their work in 2015, indicating a lack of commitment to their job.

Undoubtedly, employees' lack of commitment is a responsibility for the organization and hardly a challenge the status quo, while committed employees display emotional attachment to work, unreserved dedication, enhanced productivity, high job enthusiasm, and in most instances go extra miles (Shuck, Rocco, & Albornoz, 2011). Similarly, Igbokwe (2011) stated that some librarians are still exhibiting poor attitude towards their work which can be linked to their absence of commitment. This attitude can be attributed to low library budget allocation and poor working environment. Their performance is negatively affected by their job dissatisfaction and lack of commitment which could give rise to lateness to work, laziness, and lack of motivation, inability to meet goals, constant sick leave and poor health condition.

The first component of organizational commitment is affective commitment. Affective commitment is regarded a key component of organizational commitment that most closely follows other organizational outcomes (Dixit & Bhati, 2012; Chen, Wang, & Sun, 2012). This component represents the degree to which an individual feels part of the community and is satisfied with his organization's participation (Kwantes, 2009). All in all, affective commitment includes the affective attachment, identification, involvement with the organization and employees' desire to be part of the organization (Abigail & Oluwatobi, 2015; Meyer & Parfyonova, 2010). Employees who have demonstrated a high level of affective commitment exhibit a higher level of creativity in the workplace (Nazir, Qun, Hui, & Shafir, 2018).

Undeniably, affective commitment defines the affective loyalty of staff to the organization (Bozlagan et al., 2010). In this approach, the source of the commitment of the employees is their feelings towards the organization. In this type of commitment, being part of the organization provides enjoyment and pride from an emotional perspective. The organization provides a great deal for the employees' material and spiritual needs. Affective commitment is recognized as a strong type of commitment. Employees with this kind of commitment fully identify with the organization. Therefore, they are prepared to create sacrifices for their organization's sake and do not intend to leave it.

Correspondingly, individuals with strong affective commitment will continue working in the organization because they want to do so, which is also owing to their strong sense of loyalty and belief that what they do is essential (Wolowska, 2014). The primary method leading to the growth of affective commitment is the personal satisfaction of an individual-the organization satisfies their personal requirements, meets their expectations and helps them attain their objectives. In the research undertaken by Rusu (2013) on educators of higher education institutions, he pointed out that the predominant organizational commitment is the affective one, which supports the organizational performance. In his research, Jafri (2010) disclosed that affective commitment is strongly linked to employees' innovative behavior.

Obviously, affective or moral commitment occurs only when people fully embrace the goals and values of the organization, become emotionally attached with the organization and feel responsible for the organization's achievement (Wong & Tong, 2014). These people generally show high levels of performance, favorable working attitudes and a willingness to stay with the organization. For Mangundjaya (2012), an affectively committed worker will strongly identify with the organization's objectives and have the willingness to stay in the organization. This worker is committed to the organization because he or she wishes to stay within the organization. Such commitment is affective because it is the employee's personal decision to be committed to the organization. In other words, affective commitment represents commitment based on the emotional ties that the employee creates with the organization through positive work experiences.

The second component of organizational commitment is continuance commitment. In this component, people are bound to be committed to stay with the organization (Dixit & Bhati, 2012; Gunlu, Aksarayli, & Percin, 2010). Continuance commitment includes commitment based on the costs of leaving the organization (Abigail & Oluwatobi, 2015). This results either from the reality that benefits associated with staying with the organization outweigh the cost of leaving or because the cost of leaving is higher than the reward of leaving the organization (Kwantes, 2009). Thus, this is a more extensive definition of economic and non-financial continuity assets that an employee would sacrifice by leaving the organization (Cho & Huang, 2012).

Another research of Bozlagan et al. (2010) states that continuance commitment is a type of commitment in which the employees are financially dependent on the organization. It is the material or financial advantage in this type of commitment that makes the employees remain with the organization. Their personal benefit is measuring the importance that the organization has in their eyes. Therefore, the continuance commitment is not regarded as a strong type of commitment. Employees do not create sacrifices for their organizations except if they are forced to do so, and they leave the organization at the first change, e.g. if they discover a better job with decent economic opportunities.

Additionally, continuance commitment according to Wong and Tong (2014) happens when people base their connection with the organization on what they receive in exchange for their efforts and what would be lost if they were to quit (i.e. pay, benefits, associations). These people make their best efforts only when the benefits suit their expectations. Wolowska (2014) also argued that a continuance commitment may evolve as a result of an intervention or event that increases the costs associated with leaving the organization on the condition that, in the perspective of the employees, these costs will have to be incurred by themselves. Another viewpoint, that of Mangundjaya (2012) is that continuance commitment is a type of commitment when employees stay committed to the organization because they perceive that leaving the organization will be a huge loss for them. Thus, the employee stays in the organization because he or she has to.

The third component of organizational commitment is normative commitment. Aladwan, Bhanugopan, and Fish (2013), Dixit and Bhati (2012), and Mangundjaya (2012) denote that normative commitment is the duty of employees to stay in the organization as a moral obligation. Norizan (2012) described that employees with high normative commitment will stay with an organization because of their belief that it is the correct and moral thing to do. Here employees remain with the organization because they should (Abigail & Oluwatobi, 2015; Kwantes, 2009). This conviction reflects a mindset of duty to remain in the organization to return organizational investments or as a consequence of socializing the belief of maintaining one's loyalty to an organization (Meyer & Parfyonova, 2010).

Normative commitment is the type of commitment that stems from the reality that employees think they have to work in the organization for conscientious and ethical purposes (Bozlagan et al., 2010). The sources of the normative commitment can be as follows: the leadership of the organizations treated the employees with much favor, the worker has worked in the organization for a long time, the organization is a life-saver for the worker in challenging times, or the organization's services are regarded socially and spiritually significant. In terms of the normative aspect, they consider themselves accountable before the organization. This feeling makes their work meaningful in the organization. Employees with such commitment can make significant sacrifices for their organization and usually do not consider leaving the organization.

Moreover, normative commitment happens only when employees stay in the organization based on anticipated standards of behavior or social norms that value obedience, caution and formality (Wong & Tong, 2014). They added that, based on studies, individuals with normative commitment tend to exhibit the same attitudes and behaviors as those with affective commitment. On the other hand, when the organization has invested heavily in training, the employee then feels a moral obligation to get on the job and remain with the organization to repay the debt; such commitment is not as a result of emotional affinity, nor as result of the perceived high costs of meeting certain goals, but as a result of perceived duty.

Employee Engagement

In any organization, creating more satisfied staff is engaging. Engagement implies that employees discover personal meaning and motivation in their job, have a high emotional bond with their organization and are actively engaged and dedicated to their job. Engagement now starts with involvement. Employee involvement relates to any activity that the employee participates in specific work-related decision-making and improvement operations, with the objective of tapping all employees' creative energies (Evans & Lindsay, 2014).

The word employee engagement may show both work and organization (Li, 2016). This author defines employee engagement as the capacity of employees to contribute to the success of organizations by freely making an additional effort to do their work. Witemeyer (2013) defines employee engagement as an approach towards one's work that includes the feelings of vigor, dedication and absorption. Deepa and Premlatha (2015) describe employee engagement as

the level of commitment and involvement that an employee has towards their organization and values. In addition, an engaged employee is aware of the context, work and colleagues of his organization to improve workplace effectiveness to the benefit of the organization. It is the employee's favorable attitude towards the organization and its values. In the study conducted by Devi, Avanes, and Archana (2012), they defined employee engagement as a state of mind in which employees feel a vested interest in the company's success and are both willing and motivated to perform to levels that exceed the stated job requirements. It is the outcome of how employees feel about the job experiences - the organization and its leaders.

Conversely, Yu (2013) argued that an engaged employee's experiences activate positive affect such as feeling proud, inspired and passionate. It has been confirmed that such active and positive feelings support the proactive job of an employee, particularly when the employees perceive the situation as significant and have control or impact over that situation. Engaged employees also display innovative behaviors. They will proactively involve the creation of a new idea, service, procedure or process. As a result, engagement becomes a contributing factor to the performance of organizations in terms of improved service, customer satisfaction and long-term outcomes (Sharma & Kaur, 2014).

Indeed, maintaining employees' engagement turns out to be the most delicate component that plays a crucial role in the organizations' success or failure (Padhi & Panda, 2015). The authors added that the management should be cautious to take care of the employees so that they should feel appreciated and engaged in the job. According to them, the core of employee engagement is the emotional and psychological availability and a cordial connection with their peers and supervisors. This view is backed by the study of Kim, Khan, Wood, and Mahmood (2016) revealing that employee engagement is seen as a critical element for achieving sustainable organizational achievement.

Another view, that of Padhi and Panda (2015), noted that employees are the main component of each organization as they are critical to viability and competitiveness. Kataria, Rastogi, and Garg (2013) also stated that organizations need more engaged employees who are vigorous, dedicated and absorbed by their job. Engaged employees are happily involved and experience their work as engrossing and something to which they can devote their full concentration. Lee's research (2012) stated that employee engagement is a new human resource practice that allows organizations to deal with uncertain and turbulent conditions in the sector. Employee engagement contributes directly and indirectly to inherent benefits, job satisfaction, personal attachment to an organization and exchange relationship between leader and member. Employee engagement is thus favorably connected with all results factors.

In the research carried out by Osborne and Hammoud (2017), the reactions of employees on communication between an employee and leaders are crucial to the success of employees in the organization. Organization leaders who fully assist employees in promoting ongoing learning and are transparent in their decision making have a greater impact on the improved level of employee engagement. They added that devoted and meaningful work allows employees to understand how important they are within the organization and makes them engaged. Additionally, Gichohi (2014) posits engagement outcomes from how employees perceive and assess their work experience, including their employer, their leaders, the job itself and the atmosphere of the organization. They also revealed that only 20-21 percent of employees are truly engaged and that 52-62 percent are not engaged in most organizations. These individuals have no passion in what they do, while 17-24 percent of employees are actively disengaged.

With the above findings, Osborne and Hammoud (2017) discovered that adverse productivity could be caused by adverse interpersonal behaviors that reduced employee engagement. In fact, globally, 13 percent of employees are fully engaged in the workplace and twice as many are disengaged to the extent that this adverse conduct is communicated to other employees. This is due to their limited knowledge, experience, skills and techniques of communication and strategies leaders used to engage employees which could have an effect on their productivity (Moody, 2012).

Moreover, employee engagement is an on-going frustration for leaders in many organizations (Aturamu, 2016). This is because disengaged employees can infuriate managers and demoralize productive co-workers who become responsible for an unfair share of the workload. Krause (2015) revealed that organizational leaders have been plagued with consistently low and declining levels of employee engagement despite their on-going efforts to implement initiative to retain talent through increased engagement. The study recommends that leaders must increase communication with employees regarding their strategy, embrace and model of engagement practices.

The first element of employee engagement is vigor. Meintjes and Hodmeyr (2018) postulated that vigor can assist individuals to foster a more proactive work style. They added that vigor is associated with persistent, conscientious efforts to devote oneself to work and when facing difficulties. In addition, Li (2016) and Kataria et al. (2013) believed that vigor is a favorable effect defined by high levels of positive energy and mental resilience in employees while doing the job.

Furthermore, Al Mehrzi and Singh (2016) described vigor as a desire to strive further and not give up when faced with organizational problems. While, Meswantri and Ilyas (2018) emphasized that vigor is the employee's attachment shown through his physical and mental strength while doing the job. It is characterized by high levels of strength and

mental resiliency in work, optimal energy, courage to do the best effort, desire, willingness and willingness to strive earnestly in the work so as to give maximum results in any job, persistence, the spirit and survival in the face of adversity.

The second element of employee engagement is dedication. Li (2016) describes dedication as motivational aspect which takes into account the perception of engaged employees in terms of significance and meaningfulness of work. Kataria et al. (2013) explicates emotional framework of engagement as the extent of employees' willingness to invest considerable time, stronger involvement, energy and effort in doing something meaningful with greater enthusiasm. While, Al Mehrzi and Singh (2016) refer to dedication as being strongly involved in the organization and experiencing the feeling of being worthy, enthusiastic, inspiring and valuable.

In another case, engaged employees believe that their dedication and effort are recognized, appreciated and make a difference to organizational performance (Alsaad, 2016). For Meswantri and Ilyas (2018), dedication is an emotional attachment of employees to their work. It also describes the enthusiastic feelings of employees in the work, pride in the work done and in the company where they work and being inspired and diligent to the goals of the company without feeling threatened by the challenges encountered. People who have high dedication scores strongly identify their work because it makes it a valuable, inspiring and challenging experience. They usually feel enthusiastic and proud of their work and organization. While low scores of dedication mean people not identifying with their work, because they have no meaningful, inspiring or challenging experience; moreover, they feel unenthusiastic and not proud of their work and organization.

Also, highly engaged employees do not only pursue role-related objectives but are also emotionally and cognitively connected to their efforts (Nazir & Islam, 2017). Deepa and Premlatha's (2015) research disclosed that the human resource professionals believe that the engagement challenge has a lot to do with how employees feel about their work experience and how they are treated in the organization. This challenge has to do with emotions which are fundamentally related to the bottom line success in a company. They also stressed that there will always be individuals who never offer their best efforts, no matter how hard the HR and supervisors try to engage them.

The third element of employee engagement is absorption, which includes concentrating on being happily absorbed in one's job, whereby time moves rapidly and it is difficult to detach from the job. Li (2016) opined that absorption is a cognitive aspect characterized by full involvement and engrossment of employees in their work to the extent that one has difficulties in detaching one's self from work. Kataria et al. (2013) highlighted the engaged employees are happily involved and experience their work as engrossing and something to which they can devote their full concentration. In addition, Al Menrzi and Singh (2016) described absorption as the full concentration of employees to a task given to them. Meswantri and Ilyas (2018) also described absorption as employees' attachment labelled by their behavior that gives full attention to their work. It is also describing the state of an employee who is happy to be totally immersed, concentrated and serious in doing his or her job. While doing their work, they tend to make the time pass so quickly that they find it difficult to let go or separate themselves from work.

Work Environment

Individuals are highly happy to have a vocation, but a considerable number of them never think that the working environment is actually their second home, and they have several opportunities there. This often drives them to feel forced to adapt to the unpleasant circumstances (Alabduljader, 2019). According to Al-Omari and Okasheh (2017) the working environment of employees is a main determinant of the nature of their job and their level of effectiveness. How well the work environment is impacts their ability to perform and their level of inspiration. The basic goals of everybody's job is not just remuneration, but also to attain achievement and reputation.

Another study revealed that work environment is essential in ensuring employees' job performance (Naharuddin & Sadegi, 2013) which can also influence the morale and productivity of employees in the organization (Chandrasekar, 2011). Orji and Enyiamaka (2017) also noted that a quality work environment enables employees to make their best efforts to attain the organization's goals and objectives. However, when employees experience a poor quality work environment, it makes them less committed to their jobs which end up with work-related issues such as absenteeism, tardiness, high turnover and negligence of duties. They further emphasized that an unsuited workplace environment, including poorly designed workplaces, inappropriate office furniture, lack of ventilation and insufficient safety measures are contributors of low productivity. In addition, another view, that of Hamid and Hassan (2015), highlighted that when the workplace environment is inappropriate, productivity and performance of employees will also decrease.

In like manner, work environment in the view of Orji and Enyiamaka (2017) is often labelled as good or bad. Commenting further, a good environment is a place where employees feel at ease and appreciated. These kinds of environment are often more productive and happy. A healthy work environment not only boosts commitment but also improves the health and needs of employees and employers. This signifies that happy employees are committed to their jobs; thus, it leads to high productivity.

A poor environment, however, is a place where employees feel under-appreciated, endangered or unsettled. Due to the nature of these environments, there is often a high rate of worker turnover and the employees typically fail to live up to their potentials. With this, the management's new challenge now is to build a work that attracts, retains and motivates its employees (Kithuka, 2015). It is worth noting that when looking for a job, many individuals are not only interested in the wage scale, but also want excellent working conditions. Workers' morale, attitude and interest will not be enhanced if they know that they are not cared for.

Additionally, the study of Smith (2013) described work environment as one of the most important factors that keeps an employee satisfied in today's contemporary world because it is diverse in different ways and constantly changing. The challenge is to build a work environment that attracts, maintains and motivates its employees, and where they appreciate what they do, feel like they have a purpose, are proud of what they do and achieve their potential. The condition of the work environment can also greatly affect how employees perform their job (Kurniash, 2017) and can also affect employees' feeling, commitment as well as the goal of the organization (Chandrasekar, 2011). Furthermore, Dul and Ceylan (2011) saw the work environment as the first and most effective driver of organizations' innovation. More so, Alabduljader (2019) stated that a healthy work environment has the ability to induce innovation and creativity among employees and leaders in an organization and a good work environment and well-built work place can be considered as a driver to a more innovative and creative staff.

Designing a better and higher performing work environment requires consciousness of how the workplace can affect peoples' attitude and how it can enable them to perform optimally. People work separately and communicate with others, and need distinct approaches in the workplace (Chandrasekar, 2011). Kurniash (2017) believes that while a good working environment provides an enjoyable experience for employees, it helps them actualize their personality as well as encourages morale to improve their performance. He further stressed that though employees are immature or uncontrolled sometimes, they may change and become responsible and more committed to work in a conducive environment.

Creating a work environment can stimulate and enhance employees' wellbeing and increase individual performance. This is considered by Samon, Waiganjo, and Koima (2015) as an approach to increase organizations' efficiency and productivity as well as boost the organizational effectiveness. On the other hand, Umamaheswari and Krishnan (2016) highlighted that when employees benefit from the work environment, they have a sense of belonging and enhance their motivation levels to stay in the organization. They added that the organization which provides employee-friendly work environment will create a good sense of trust among employees because they feel that this organization cares about them, and this becomes a factor considerably related to their commitment.

In similar manner, when employees are given the necessary motivation they need, they display maximum willingness in the discharge of their duties (Amusa et al., 2013). As such, satisfied, happy and hardworking employees become the biggest asset of an organization (Basara, 2017). Gitonga and Gachunga (2015) stipulated that when employees are physically and emotionally satisfied and have desire to work, their performance outcomes will be increased. In addition, they also indicated that satisfaction helps to reduce the amount of absenteeism by providing a correct workplace atmosphere and thus can boost the efficiency of the staff. Blakey (2015) also disclosed that the work environments that an organization offers are increasingly unsuited to emerging trends of work and inhibit workers from performing to their full potentials. In the face of rapid developments to elevate the work environment, workplace design typically lacks a formal process to measure the value of design investments or its impact on the innovative process (Armstrong, 2013).

The first domain of the work environment is work pressure. Employees are feeling the pressure for the rising targets from the employers. Employers have become more aggressive about restructuring work in ways that push for higher productivity aided by an array of technologies and management practices (Kithuka, 2015). He added that employees feel slightly uncomfortable in both the coolest and warmest of climates, were less motivated and experienced their workload as more difficult, with a consequent turn down in productivity. According to Roe and Zijlstra (2000) work pressure is a subjective state associated with expectations about the future flow of work, particularly with the dynamic balance between the work that needs to be done and the work that can be done. The work that must be done can be seen as determined by work demand and work supply, whereas the work that can be done is seen as determined by the personal competence to meet the demands and the capacity to manage the work supply.

Another research disclosed that work pressure is inevitable owing to the requirements of the modern work environment (Leka, Griffiths, & Cox, 2004). Pressure perceived by a person as acceptable may even keep employees motivated, alert, able to work and learning, based on accessible resources and personal characteristics. However, when this pressure becomes excessive or otherwise unmanageable, it leads to stress. Stress can harm the health and performance of employees. Poor work design, bad management and unsatisfactory working conditions can cause excessive and otherwise unmanageable requirements and pressures. Similarly, these factors may lead to employees not seeking adequate assistance from others or not having adequate control over their job and its pressures.

Moreover, excessive work pressure is harmful for creativity. However, sometimes it has been identified that while working under pressure, employees try to identify the shortest possible route or method to accomplish the task. This shortest route or technique sometimes becomes the most innovative idea of any organization. This innovative technique helps employees to accomplish targets. Pressure is a force which motivates individuals to accomplish a task at the earliest. They have to search for alternatives or ways to complete the task and perform their best. This helps them to achieve organizational goals and to meet the set standards necessary to attain sustainability. This work is an effort to reveal the importance of time or work pressure for enhancing creativity and innovation in organization (Gupta, 2015).

Similarly, an increased workload can enhance short-term productivity, but it may boost long-term expenses as well as stress and illness among staff, leading to bad judgement and poor commitment (Orji & Enyiamaka, 2017). This means that workload increases short term commitment, but decreases long-term commitment. Due to limited resources, like restricted budget and staff, organizations might not be able to hire a sufficient number of employees. With this, the organization gives the employees responsibilities that are not part of the job descriptions, thus increasing the workload.

The second domain of work environment is task orientation. Task orientation is explained as a self-related personal accomplishment which helps employees stay committed to the organization (Maqsood, 2011). Chandrasekar (2011) argued that a formal workplace communication scheme promotes trust and allegiance among staff and encourages better team work and relationships. Naharuddin and Sadegi (2013) stressed that to accomplish a normal output, employers need to get the job of the staff on track to accomplish the objectives and goals of the organization. By getting to work or accomplishing the task on time, employers can monitor their staff and assist them enhance their efficiency. A reward system should also be introduced based on employee performance. This is to motivate staff to carry out their assignment.

The third domain of work environment is supervisory support. Gitonga and Gachunga (2015) stated that supervisor support is the extent to which supervisors encourage participation in training, innovation and knowledge acquisition and provide recognition to employees involved in these activities. It also the extent to which supervisors reinforce and support the use of learning on the job. The role of supervisors (Umamaheswari & Khrisman, 2016) is vital for the organization and several studies have confirmed that good relationship between supervisor and subordinates enhances employee's job satisfaction which is considered as a pathway leading to organizational commitment. Thus, employees who viewed supervisor support demonstrated greater emotions and allegiance to the organization.

The study of Chandrasekar (2011) emphasized that superiors behave as advocates for employees as well as collecting and distributing the resources required by the latter to do a good job and provide positive encouragement for a job well-done. In the research, it can be inferred that most employees at the workplace retain a powerful connection with their superior. He added that a superior must treat employees in the workplace fairly and motivate employees to do their job with full concentration in their work environment. According to Naharuddin and Sadegi (2013) informal mentoring needs to be done by the supervisors to create a mutual understanding and relationship between the supervisor and the employees. By having this mutual understanding, a mutual satisfaction is created.

It was established in the study of Gitonga and Gachunga (2015) that supervisor support influences organizational performance. From the results, majority indicated that they were not informed in advance concerning important decisions, modifications or plans for the future, they did not obtain all the data they needed to do their job well, and their work was not acknowledged and valued by the management. The management at the workplace did not respect employees and did not treat them fairly. As revealed by Kula and Guler (2014), supervisor support has a significant and positive impact on the job satisfaction levels of law enforcement employees; it is very important to support law enforcement employees by their supervisors not only to increase their work-related wellbeing, but also to improve the organizational performance.

The fourth domain of work environment is physical comfort. Chandrasekar (2011) highlighted that physical factors in the workplace such as bad design or overcrowding can lead to accidents such as striking or tripping against objects. Thus, when it comes to maximizing productivity, the real physical layout of an office becomes highly important. The research also disclosed that most staff are satisfied with the organization's room and equipment. The majority of the employees are provided the space and facilities they needed to do their work. He further stressed that organizations have to provide a friendly and comfortable workplace. Most employees agree that environmental factors such as temperature, lighting and ventilation will not impact on health. Office space is one of the major physical elements influencing the work performance of the employees. The majority of the employees ensure that a poor arrangement of office space, waste time and energy by failing to provide the means for efficient job practices.

In addition, physical comfort is claimed to be vital as it will encourage healthier, more productive and less absentee employees. The physical environment comfort encompassed optimum room temperature, relative humidity and illuminance level. A well designed, and optimum environment comfort office workplace will achieve the objectives of the organization. The issue arises when the factors of environment comfort influence their cognitive abilities and reduce their work performance. Without proper lighting, employees cannot finish their tasks comfortably. When

employees are feeling uncomfortable with their physical environment, they tend to feel tired and are stressed easily. This will lead to unethical acts which will affect the performance and productivity of their work. Thus, human response towards their surrounding comfort will affect their production level at the end of the day (Chua, Ali, & Lim, 2016).

Further, those employees and organizations who have their performance affected by the workplace environments are those who always complain of the discomfort and dissatisfaction at the workplace (Gitonga & Gachunga, 2015). The research further observes that it is the quality of the organization's workplace environment that most impacts the level of employee's motivation and subsequent organization performance. While, Naharuddin and Sadegi (2013) voiced out that physical work environment is the environment where these human beings are fit with their job. This physical work environment might include ventilation, lighting and also temperature. The physical work environment components also need to be adequate so that the employees will not be stressed while doing their job done. They further state that the physical components play an important role in the growth of the network and connection in the workplace.

Meanwhile, Orji and Enyiamaka (2017) revealed in their study that teachers tend to perform more effectively where the necessary facilities that aid work are provided against all odds. Where such facilities are grossly inadequate, commitment level significantly declines and the school overall progress level declines as well. Overall, the study concludes that teacher commitment levels are significantly determined by the working environment; hence, all hands must be put on desk to ensure sustainability of the working environment for guaranteed commitment level which leads to school performance. Samon, Waiganjo and Koima (2015) contend that the physical workplace environment includes but is not limited to the comfort level, ventilation, heating, natural lighting and artificial lighting. These characteristics only help the functional and aesthetic side, the decoration and layout of the workplace setting that eventually helps enhance the experience of the employees and requires better output. It only emphasizes that organization services must insist on the utility and the role of environmental information, facilitating employees' engagement with better space management and the automation of certain tasks. Similarly, if the tasks to be performed are very complex, efficiency of layout and functionality will be more important than when the tasks are simple.

Creativity and Innovation

Being creative and innovative is more essential in today's environment (Kumari & Afroz, 2013). This implies thinking about new ways and being open to totally distinct ways of seeing the world. Creativity and innovation have a part to play in this survival change process. Organizations are bringing creativity to life through creative products and service that the customer wants; thus, satisfying the needs of the customer and contributing to the organization's success. Creativity flourishes when organizations allow their employees to enter a space of creative freedom, a freedom needed for innovation and creativity to thrive (Blakey, 2015).

Additionally, Anderson et al. (2014) proposed an integral definition of innovation and creativity at the workplace by considering creativity and innovation as two ongoing phases of the process of implementing new and enhanced methods of doing stuff at work. Specifically, they argued that creativity and innovation are related constructs. Thus, creativity and innovation should not be separated, but rather combined to unveil an organizational phenomenon of immense innovativeness. In addition, creativity and innovation are defined as the processes and results of efforts to introduce and create new and enhanced methods of doing things.

In the study of Gichohi (2014), he pointed out that creativity and innovation is vital to the libraries as it seeks to support their student learning effort. In many libraries, however, creativity and innovation is haphazard, rare and has not become a common practice. This is due to limited resources, lack of qualified library personnel, lack of financial support, lack of space and equipment which hinder the very tenets of library service (Batiandila, 2007). In addition, Ukachi and Onuoha (2015) stressed that improvement of professional knowledge and competence are necessary for creativity and innovation and to cope with the rapid and numerous changes taking place in the library.

Another research disclosed that despite the advantages of creativity, it is still hard to encourage creativity in the workplace because employees feel uncomfortable performing creatively (Yoon, Sung, & Choi, 2015). Given that creativity often happens by challenging the status quo and disrupting work processes approved by others, employees who continually propose creative thoughts can offer the feelings of being dissatisfied with their present job; thus, cause tension among members.

Meanwhile, Maier et al. (2013) underscored that successful implementation of creativity and innovation can be only done with management support because they have a particular role to play in encouraging it in the organization, in which they should open up communication between employees and other important people in the organization. They added that the aspects which are very important for proper development of creativity and innovation in the organization are the allocation of resources and equipment and adaptation of rules and regulation, as well as tolerance of mistakes made in the creativity and innovation process.

The proponents of creativity and innovation like Bilal, Ahmad, and Majid (2018) argue that employees' creativity is the seed which helps the tree of innovation to grow in an organization. These views may clearly indicate that creativity and innovation have a cause and effect relationship to enhance the overall productivity of the organization. The creative employees are the ones who do not only come up with new ideas, but also develop a concrete plan to implement these ideas and convert them into innovation. In support, as organizations face an additional challenge, Yesil and Kaya (2012) emphasized that the requirement to innovate often is rapid and has to have a strong success pace. The requirement puts pressure on organizations to explore methods to foster creative and innovative behavior.

The library needs to pursue innovation and creativity (Jantz, 2013) and perchance devise an approach to meet the demands of its parent institution. Otherwise, the library will likely be left behind. In addition, McKenna and Chauncey (2016) averred that libraries are challenged to rethink library spaces, the roles and skills of librarians and to embrace the need for radical change. Libraries are further challenged with opportunities to support cutting-edge pedagogies and assessments in agile and flexible ways with creative, innovative thinking, involving everyone in the library.

In the study of Ramalingan, Karim, Piaralal, and Singh (2015), creativity and innovation has become essential to any organization that wishes to sustain its competitive advantage in today's world that has higher growth of new knowledge, ideas and accelerated rate of globalization. They also stressed that it is safe to say that building a knowledge-based organization that effectively depends on the degree of creative and innovative features will decide the organization's long-term success and survival. Even though some organizations may have already attempted to encourage creativity and innovation by promoting human capital development, the extent may have been limited due to other influencing factors.

Further, another study has shown that the driver of the employees to become creative and innovative in organizations have become an important question. One of the most significant sources that an organization pays attention to is organizational culture that can generate and support an atmosphere in which innovation can thrive (Yesil & Kaya, 2012). As argued by Heye (2006), the 21st century information professional needs characteristics of creativity and innovation to remain relevant. On other hand, Ohuoha et al. (2015) asserted that the desire of librarians to keep up with the pace of growth and development calls for librarians to have innovative and creative skills. Innovation in librarianship is all about looking for new ways to improve library services.

The study conducted by Sheykhan and Saghaee (2011) has shown that there are some organizations which perceive innovation as a key driver for organizations' success in an increasingly competitive global economy. If workers are expected to deliver innovation outcomes they must have the surroundings that will foster creativity. Furthermore, the authors found that creativity and innovation are two most important items to add value to any organization. A creative organization could compete with its rivals more strongly and it could pass economic crisis easier. Therefore, there is a need to set up a good environment to build better working conditions to help employees become more creative. Mathew (2010) also enunciated that creativity and innovation help the organization achieve its purpose and with the help of its leaders can become the norm of the organization. He also stressed that if an organization embraced creativity and innovation, it will provide the true source of competitive advantage for efficient organizations as organizations strive to produce and encourage creative thoughts while adopting technological changes.

Meanwhile, employees who considered the physical environment as a driver of engagement and a key component to creativity and innovation are those employees who planned to stay in the organization, while those employees who are planning to leave the organization were 25 percent less satisfied with their physical workplace (Blakey, 2015). As pointed out by Carine et al. (2015), employees should be equipped with knowledge, expertise and technical skills to enhance their innovation and hence boost performance in the organization. Creativity-relevant processes that include personality features that are conducive to autonomy, risk-taking and taking new viewpoints on issues as well as a disciplined job style and idea-generating abilities are critical in maintaining creativity. They also added that supervisors need to be supportive of the employees and give them the needed guidance for better performance. Motivated employees are more creative and perform better compared to those who are not.

Certainly, organizations need to have a culture and corresponding physical environment that consistently reinforces and spawns' creativity and innovation (Blakey, 2015). The factors that contributed to creativity and innovation in the workplace include consistent sharing of ideas, mutual dependency, focus and authentic relationships. In this manner employees require flexibility, increased opportunity for face-to-face interactions, new tools and technology to promote creativity and innovation in the workplace (Kuske, 2013). He added that employees, who have the ability to access work remotely, are experiencing the effects of distributed work - increased isolation, freedom, less collaboration with teammates and hazy lines between work and play.

To illustrate this, contemporary libraries should be more creative and innovative to effectively deal with complexities of scholarly communication and manage information technology (Biranvand, Soheili, & Khasseh, 2015). They also stressed that librarians should be creative to increase the quantity and quality of services and to prepare the

conditions required to present creativity for them. The librarians should have excellent working conditions and favorable social environments that present the finest services instantly which are readily available to the customers.

Librarians in Imo State encountered problems in implementing innovation and creativity. This was due to the lack of funding to acquire technological facilities, the lack of ICT abilities for librarians, the lack of participation at conferences or workshops, unconducive working environment and lack of management interest in library services (Ohuoha et al., 2015). Despite all these, they strongly believed that innovation and creativity be acknowledged and motivated for the library's success. While, Diala and Ude (2015) pointed out that adopting innovation in the organization can create unintended consequences such as diminished collaborative activities of employees and destruction of confidence in the workplace.

The concept of valuing innovation and creativity particularly for newly hired employees in the organizations most probably arises from the proposed library tradition of offering understanding with stability and structure along with the organizational culture that tradition represents (Germano, 2011). Adding an extra layer of complexity to adversity, changing libraries is the reality of strained budgets and decreased funding they are currently experiencing. Cash-strapped libraries with reduced working budgets with potential layoffs inevitably face an extremely adverse type of change that makes them suspicious or even fear change. Atata et al. (2014) opined that libraries as platforms for innovation and creativity involve a continuous improvement for individuals, groups, customers and the entire library setup. It is a process which aims at continuous improvement. In an innovative and creative society, library services embedded in information communication technologies becomes the main source of professional success and capability.

The first domain of creativity and innovation is problem identification and information searching. Biranvand et al. (2015) postulated that library creativity can be explored from both inner and external elements. Internal elements monitoring given circumstances for displaying creation among library staff and external aspects, takes into account the creativity circumstances of library uses. It also deals with the inner elements of creativity because until librarians are creative, they are unable to generate and enhance creativity among their customers. The nature and quality of library service relies primarily on the operations of the library staff. In addition, librarians should be creative and provide the necessary circumstances for creativity to enhance the quality of services.

When employees are encouraged to lead themselves in defining problems, solving problems, making decisions and identifying opportunities and challenges both now and in the future, their creativity is encouraging (Ghosh, 2015). On the other hand, if employees are not encouraged to lead themselves in critical situations, then creativity is not encouraged. When employees are given the autonomy to try new ideas, take risks and seek new and different solutions to problems they will become passionate and driven to solve and find solutions to the problems (Germano, 2011).

The second domain of creativity and innovation is atmosphere for creativity and innovation. Maier et al. (2013) opined that the degree to which creativity and innovation are promoted within the organization is trust relationships. Having a high degree of trust between employees and managers makes people feel emotionally safe and this should lead to an atmosphere in which creativity and innovation can be developed. Baldwin (2013) claimed that the development of innovation in the organization requires a good environment. Taking Diala and Ude's (2015) findings in which they highlighted that employee acts of resistance to innovation often manifested from the negative responses associated with poor perceptions of the effect of implemented innovation on an individual's career or state of well-being. The resistance to implementing innovation could affect an employee's motivation and exacerbate an environment conducive to confrontation.

Innovation is the ability to apply new ideas that will enable employees to undertake activities differently (Ohuoha et al., 2015). With this, through individual initiatives, imagination, intuition and insight will be able to change things around or devise ways of doing things to accommodate whatever new situation may occur. On the other hand, creativity in librarianship is all about discovering new ways of carrying out library and information services. This points to the fact that the role of creativity in librarianship cannot be taken for granted.

The third domain of creativity and innovation is *leader encouragement for creativity and innovation*. An organizational environment that recognizes, appreciates and encourages creativity and innovation is a powerful reinforcement of leadership's influence on employee's creation and innovation (Moghimi, 2016). In organizations where leaders build transparent relations with followers, employees' creativity and innovativeness can be stimulated when they perceive the extent to which these are encouraged and supported. He added that another source of support for innovative practices is cooperation and sharing among team members. For innovation and creativity to be materialized, it requires team members to share information and resources and assist each other in the development of new ideas and services.

Further, the library manager should be accountable for fostering creativity and innovation in the workplace. This involves accepting the liberty of staff for making decisions and being sure of the stimulating workplace (Biranvand et al., 2015). It is important to remember that the assistance provided to librarians and other library staff as underscored by Decker (2017) is in the form of workshops, seminars, mentorships, peer-to-peer learning opportunities and other formal

and informal training techniques. Information methods of learning such as discussion with colleagues are among some of the most effective methods of learning. In fact, transformational leaders let their subordinates think creatively, analyze their problems from several angles and look into new and fresh solutions for problems (Khalili, 2016).

To generate ideas and behavior that encourages innovation is important (Maier et al., 2013). These authors added that to exist in the organization, encouraging thoughts must be generated, action encouraged and methods of solving issues discovered. The presence of innovative behavior is affected by the work setting. In this work environment every conflict should be handled constructively to promote creativity and innovation. It is important for the employees to find themselves and promote the creativity and innovation and for this, better work methods need to be developed.

The fourth domain of creativity and innovation is empowerment. Evans and Lindsay (2014) stressed that empowerment merely means giving individuals the power to make choices on what they think is correct, to have control over their job, to learn risks, to learn errors and to encourage change. Also, successful employees must step out of their traditional positions and make choices earlier taken by their supervisor. Empowerment stood out on both employee constructs and workplace creativity and innovation. The fundamental logic is that if people are able to monitor their duties and workloads, they can think creatively about alternatives and thus innovative behavior. Similarly, empowering employees may make one feel that the confidence in leadership and the input value of people in the workplace is likely to have a beneficial effect on creative and innovate conduct among library employees (Gichohi, 2014).

Many organizations have come to rely on employee empowerment strategy as a tool to motivate employees to become more productive, loyal to the organization and to be more innovative (Erturk, 2012). Employees with elevated psychological empowerment generally take a more proactive attitude to shaping and affecting their work environment. Empowerment is expected to be positively related to organizational innovation. Having a feeling of control over what to do and how to do one's work would improve the ability of the individual for innovative behavior. In addition, Humborstad and Perry (2011) postulated that empowerment includes giving employees the autonomy to make choices about how they go about their daily operations.

In addition, when an employee has feelings of autonomy and empowerment, it is probable that these feelings will result in increased commitment to the organization (Seibert, Wang, & Courtright, 2011). Furthermore, employee empowerment has been associated with an increase in commitment as the employee would be reluctant to leave their work that is empowering, since the employee may view leaving the organization as sacrificing something of value. Accordingly, Hon and Lui (2016) averred that empowerment leads to independent motivation which they reported as having favorable connection with creativity. This is in the form of enhanced accountability, work, trust and task control. In the same light, the study of Moghimi (2016) revealed that employees with high levels of personal initiative tend to be more creative and innovative when leaders' behaviors encourage creativity and innovation. This suggests that personal initiative, characterized by a self-starting, persistent and proactive attitude, enhances the impact of innovation – enhancing leadership behavior on creativity and innovation.

Correlation between Measures

Few researches have been conducted by different authors to determine how organizational commitment, employee engagement and work environment link creativity and innovation of library personnel within an organization.

Results of the study conducted by Holagh, Noubar, and Bhador (2014) indicated that there is a meaningful positive relation between organizational commitment and creativity of employees. Taking the results of the study of Takaishi, Hasegawa, and Hasegawa (2016), organizational commitment, has been proven to enhance the innovative behavior of employees. The organization should encourage employees to identify with it and execute strategies that suggest, evaluate and reward employees' innovative behavior. Hou, Gao, Wang, Li, and Yu (2011) emphasized the impact of organizational commitment on innovation of employees as a long-term organizational growth, so staff with a powerful psychological connection to organizations could demonstrate better creative output in line with the organization's objectives. A committed individual in the organizations is someone who seeks to innovate, create and meet customer needs.

Meanwhile, the research conducted by Pedraza, Mesa, and Gaviria (2016) explained that employee engagement can affect creative conduct and plays a main role in the organizational operation and service delivery. Colgate (2010) stressed that there is a connection between employee engagement and innovation. Engaged staff are more creative and ready to accept innovative thoughts from others. Most organizations value creativity and employees who are allowed to be creative are more engaged with their current position. An organization's culture can either promote or suppress innovation. This is confirmed by Gichohi's research in 2014 that employee engagement plays a precursor role to foster creativity and innovation at the workplace. Employees who are emotionally attached to the organization are more likely

to create more effort to accomplish their job above and beyond their responsibility. It therefore leads to creative conduct among staff.

The finding of the research conducted by Dul and Ceylan (2011) stated that work environment enhances employees' creativity. Szobiova (2015) also agreed that a healthy work environment has the capacity to impact innovation and creativity among the organization's employees. This is in agreement with Awang, Sapie, Hussain, Ishak, and Yusof (2014) who stated that work environment has importance impact on the formation of innovative work conduct of employees within the organization. Thus, organizations strive to raise employees' innovative work behavior to improve their performance and competitiveness. Jamiu and Ndubuisi (2017) avowed that enabling work environment facilitated by the organizational culture is the most influential factor in developing and facilitating innovativeness of employees in an organization. However, Walter (2012) demonstrated that there is a correlation between work environment and the impediments for creativity. His research revealed that the main barriers were fear of risk taking, physical work environment, time pressure, autonomy or freedom and organizational impediments in the form of control and internal strife.

Theoretical Framework

The study is anchored on two propositions and one theory. The link between organizational commitment and creativity and innovation is anchored on the proposition of Hou et al. (2011) declaring that employees who are highly committed in the organization promote creativity and innovation. A committed employee who demonstrates better creative and innovative output has the capacity and abilities to integrate resources into the workplace and is looking for ways to improve the organization's activities and thus fulfill to organization's mandate. Kumari and Afroz (2013) explained that a committed employee in the organization is someone who seeks to create, innovate and meet customers' requirements and is working hard to improve the operations of the organization, thus fulfilling the organization's mandate.

Furthermore, the link between employee engagement and creativity and innovation is anchored on the proposition of Rao (2016), that employee engagement positively impacts creativity and innovation of employees. To further enhance the creativity and innovation of employees, organizations should provide facilities and support employees to foster engagement among them and in return cultivate their creative and innovative behavior. He further stressed that employee engagement leads to innovative behavior when there is a collaboration among employees. The pronouncement of Rao is supported by Nawaz, Hassan, Hassan, Shukat, and Asadullah (2014), whose findings showed positive and supportive links between employee engagement and employee creativity. When employees are given training and empowerment, they feel that the organization is more concerned about them. When an organization gives consideration to their employees, the performance of employees improves. This sense of consideration leads the employees towards employee engagement which ultimately results in more creativity of employees.

Moreover, the link between work environment and creativity and innovation is based on the Componential Theory of creativity and innovation of Amabile (2012). The most important assumptions of this theory is that work environment affects creativity of employees by affecting aspects to creativity that are basic sources of organizational innovation. The theory defines three individual features that need to be present for creative production: intrinsic motivation, domain-relevant skills, and creative-relevant cognitive processes. Of these three, intrinsic motivation is regarded to be the individual pursuit of duties for its own sake, which is deemed critical to creative results. As both a persistent characteristic and state, intrinsic motivation generates the drive to continue with challenging tasks, which is believed to influence creativity and its impacts on intrinsic motivation. Domain-relevant skills refer to the knowledge needed to impact significant domain modifications, while creativity-relevant cognitive processes include divergent thinking capacity as well as decision-making style.

Further, supporting Amabile's theory, Sternberg (2016) emphasized that six separate but interrelated resources are needed for creativity at least at the threshold: intellectual abilities, understanding, styles of thinking, personality, motivation and environment. In view of these factors, he also pointed out that creative contributors have alternatives and make intentional choices about how their creativity is expressed. In other words, although individual characteristics are one element of creative production, creative performers themselves will change or change their environments to suit requirements. For establishing a creative context, it is essential to acknowledge three things: creative output depends on supportive work environment; there are several contributing factors but keeping intrinsic motivation is essential to employee success; and creative actors are decision makers and will not stay in location when the first two criteria are not met.

Conceptual Framework

Represented with oval shapes as shown in the model are the exogenous and endogenous variables or latent variables which are also known as the unobserved or unmeasured variables. On the other hand, observed or measured indicators are represented with rectangular shape. Through the use of SEM, the link of observed or the indicator of

A Structural Equation Model on Creativity and Innovation of Library Personnel in Davao Region

variables with latent or the unobserved variables is the first stem in formal statistically valid procedure. The double head arrow represents the interrelationship between variables, while the single head arrow represents causal or direct relationship of latent endogenous variables, latent exogenous variable and measure variable.

The first exogenous variable is organizational commitment (Ajie et al., 2015) described in terms of the following indicators: Affective Commitment explains the employee's emotional attachment to, identification with and participation in the organization; Continuance Commitment relates to commitment based on the expenses associated with leaving the organization by the employee; and Normative Commitment refers to the employee's sense of duty to remain with the organization.

Consequently, the second exogenous variable is employee engagement (Li, 2016) described in terms of the following indicators: Vigor refers to the beneficial key effect of employees, which is characterized by the high level of positive energy and mental resilience while working, and a readiness to invest time and efforts in job duties; Dedication is a condition in which employees view their work as a meaningful and substantial activity; and Absorption pertains on the cognitive aspect where employees experience their job as comprehensive and something they are fully focused on, and it is hard to detach themselves from job.

Finally, the third exogenous variable is work environment according to Mayowa-Adebara and Aina (2016) described in terms of the following indicators: Work Pressure refers to the degree to which work environment is dominated by elevated work requirements and time pressure; Task Orientation means the degree to emphasize excellent planning, effectiveness and performance of the job; Supervisory Support refers to the extent to which management is supports employees and promotes employees to be support each another; and Physical Comfort is the extent to which the physical environment contributes to an enjoyable working environment.

The latent endogenous variable is creativity and innovation (Gichohi, 2014) described in terms of the following indicators: Problem Identification and Information Searching is an act in identifying and finding alternatives to a problem; Atmosphere for Creativity and Innovation is the setting that encourages employees to feel like expressing thoughts and experimenting with new items; Leader Encouragement for Creativity and Innovation is the extent to which a leader encourages employees to explore new areas for creative and innovative ideas; and Empowerment is a degree of autonomy and accountability for decision-making regarding the particular workloads, jobs and duties of employees.

The four hypothesized structural models of the study are illustrated in Figures 1 to 4. These models were explored to come up with the best fit model among the variables, namely: organizational commitment, employee engagement, work environment and creativity and innovation which would serve as basis for formulating and improving activities and policies for creativity and innovation of library personnel.

Hypothesized Structural Model 1 is the conceptual model showing the direct relationship of the latent exogenous variables towards the latent endogenous variable.

Hypothesized Structural Model 2 is a model showing the interrelationships between organizational commitment, employee engagement and work environment and their direct causal relationships towards creativity and innovation.

Hypothesized Structural Model 3 is a model showing direct causal relationship of organizational commitment, employee engagement, work environment and their direct effect to creativity and innovation.

Hypothesized Structural Model 4 is a model showing the direct causal link of the exogenous variables towards creativity and innovation and their relationship towards each other.

Significance of the Study

This study hopes to shed light on the magnitude of knowledge about creativity and innovation through the perspective of the library personnel's organizational commitment, employee engagement and work environment. Further, this study on creativity and innovation helps library personnel to fully understand their roles more specifically in the ways and manner library services are done in the library. Creativity and innovation are vital for the performance of library personnel and the success of any organization. Similarly, to develop in any organization, the creativity and the spirit of innovation, the function of a leader must be acknowledged because a leader can effectivity foster creativity and innovation by fostering a flourishing atmosphere conducive to creativity and innovation and developing friendly and inclusive working conditions for any of the employees in the organization. Furthermore, this study will open opportunities in understanding the global perspective of creativity and innovation, organizational commitment, employee engagement and work environment of library personnel in the global arena.

This study further expresses social importance of creativity and innovation of library personnel, especially in the manner they dispense library services. When the social structure of the school helps library personnel feel secure and

accepted, value and harness the richness of their ideas, it will develop innovative culture and create common systems of values which aims for creativity and innovation in the organization. At the same time, nurturing creative and innovative culture generates opportunities that would lead to enhance efficiency and discovery of alternative procedures that is more effective to enable library personnel improve their personal job performance. Certainly, library personnel who are creative and innovative will definitely produce sounder and more brilliant ideas for the improvement and development of the library, its service and satisfying the needs of library users in general.

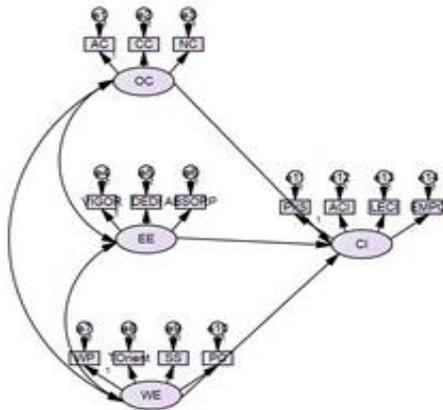


Figure 1. A Conceptual Model Showing Direct Relationship of the Latent Exogenous Variables towards the Latent Endogenous Variable

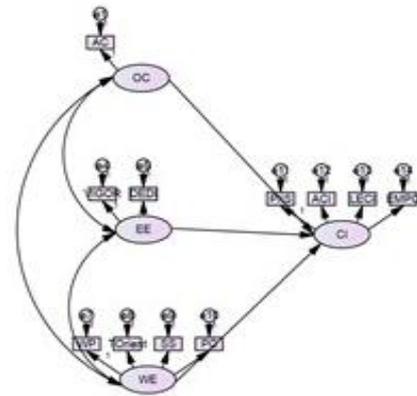


Figure 2. The Interrelationships Between Organizational Commitment, Employee Engagement and Work Environment and their Direct Causal Relationships Towards Creativity and Innovation

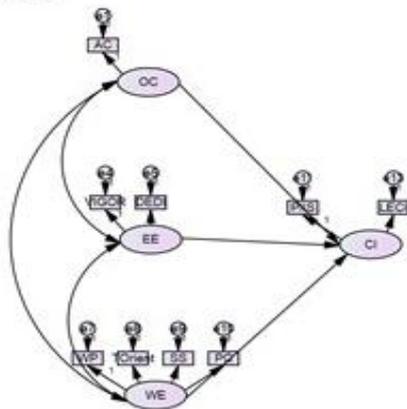


Figure 3. The Direct Causal Relationship of Organizational Commitment, Employee Engagement, Work Environment and their Direct Effect to Creativity and Innovation

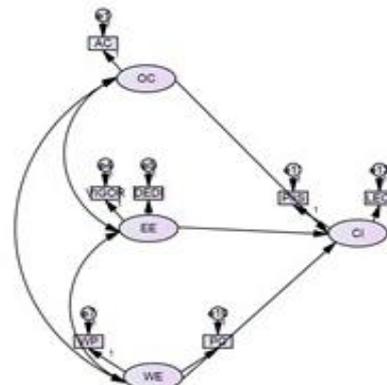


Figure 4. The Direct Causal Link of the Exogenous Variables Towards Creativity and Innovation and their Relationship for Each Other

Legend:

CO-Organizational Commitment
 AC-Affective Commitment
 CC-Continuance Commitment
 NC-Normative Commitment

EE-Employee Engagement
 Vi-Vigor
 De-Dedication
 Ab-Absorption

WE-Work Environment
 WP-Work Pressure
 TO-Task Orientation
 SS-Supervisory Support
 PC-Physical Comfort

CI-Creativity and Innovation
 PIIS-Problem Identification and Information Searching
 ACI-Atmosphere for Creativity and Innovation
 LECI-Leader Encourage for Creativity and Innovation
 Empo-Empowerment

Furthermore, this study's results would directly benefit the School Presidents or Administrators and provide them insights in formulating policies and strategies that would respond to library personnel's needs and aspirations. Thus, the best fit model could be the basis in developing strategies and formulating polices towards development of library personnel's creativity and innovation. Human Resource and Immediate Supervisor would help them determine on what programs and activities are needed to prioritize and to be implemented to stimulate creativity and innovation of library personnel and in the organization in general. Library Personnel would help them determine how important creativity and innovation in their work as well as would give them an avenue to evaluate their performance and the way they deal with their work. Furthermore, the study may serve as a reference valuable means of information and a secondary source of data for the researchers who may undertake further investigation in this area.

Definition of Terms

The following terms were defined operationally to provide a clear understanding of the terms:

Organizational Commitment. In this study, these are the different dimensions of organizational commitment such as affective, continuance and normative commitments which help identify the attitude and behavior of library personnel.

Employee Engagement. As used in this study, it refers to the degree to which the library personnel are enthusiastic and fully involved in his or her work in the library that is characterized by their vigor, dedication and absorption.

Work Environment. As used in this study, it refers to the totality of forces, actions and other factors that could affect activities and performance of library personnel such as work pressure, tasks orientation, supervisory support and physical comfort.

Creativity and Innovation. In this study, it refers to the process and outcomes of attempts of library personnel to develop and introduce new ideas and innovative approaches to improve ways of doing things in the library as to problem identification and information search, atmosphere for creativity and innovation, leader encouragement for creativity and innovation and empowerment.

II. Method

This section presents the research design, research locale, population and sample, research instruments, data collection, statistical tools of the data and the ethical consideration of the study.

Research Design

This study used the descriptive-correlation technique using Structural Equation Modeling (SEM). First, it utilized the descriptive correlational method. According to Rocina (2016), a descriptive study involves demonstrating the importance of facts and concentrating attention on the most significant items to be reported and in determining the relationship between two or more variables. In addition, correlation is used to determine the connection between two or more factors. Second, the study used structural equation modeling (Bagozzi & Yi, 2012) which aims to determine the relationship between the exogenous and endogenous variables through a series of statistical methods that determine proposal causal processes and or models concerning a particular phenomenon. It also provides more meaningful findings which explore the best fit model.

SEM evaluates direct and indirect and the interrelationships among the determinant (independent) variables, all simultaneously. Moreover, SEM provides greater explanatory strength and comprehensiveness than the conventional bivariate and multi-regression analysis techniques (Hopper, Coughlan, & Mullen, 2008).

Research Locale

The study was conducted in the Davao Region, designated as Region XI, one of the regions in the Philippines situated on the Southern part of Mindanao. Formerly known as Southern Mindanao, Davao Region stands in Region XI as an administrative region. As shown in the vicinity map, it is circumscribed on the north of CARAGA region, on the east and south by the Philippine Sea, on the west by Bukidnoon and SOCSARGEN region. The Davao Region consists of five provinces, namely: Davao Oriental, Davao del Sur, Davao Occidental, Compostela Valley and Davao del Norte. Davao Region covers the Davao Gulf and its center of commerce is at Davao City which is pronunciation is derived from the Hispanic *daba-daba* - which means fire in Bagobo, and *kalayo* in the Cebuano dialect.

The respondents of this investigation were the library personnel of the private schools in Davao Region from primary, secondary and higher education institutions. Survey questionnaires were administered in the said institutions.

Population and Sample

The respondents of this study were 400 library personnel in Davao Region. This number was appropriate for the conduct of the study since the study measures and finds the best fit model for creativity and innovation of library personnel in Davao Region. Furthermore, this study applied a universal sampling in choosing the respondents. Universal sampling is a form of purposive sampling technique where the whole population that meets the requirements such as experience, specific skill set etc. are included in the study being undertaken (Etikan, Musa, & Alkassim, 2016; Sharma, 2017). This method is used when the number of cases being researched and/or the size of the population having a specific set of features is relatively small.



Figure 5. The Philippine Map and the Research Locale

Certain qualifications of respondents were set by the researcher to qualify for the conduct of the study. The respondents of this study possessed the following characteristics: a librarian who works professionally in a library, who holds a bachelor's and/or master's degree in library science and a license, a library staff who are the non-library science degree holders working in the library that have been given a certain amount of special training regarding the operation of the library, and all must work at the private institutions. They were chosen as respondents because they were more capable in answering the survey questionnaire and would be able to provide the required data for the study.

Moreover, the library personnel in the public schools (e.g. primary and secondary schools), state and local colleges and universities as well as public library were not included in the study, instead they were the subjects for pilot testing. Furthermore, the library personnel involved in the study may opt not to continue with the study should they find the questions uncomfortable to answer. Thus, the respondents had the freedom to decide to terminate or withdraw before or during the conduct of the study.

In determining the 400 respondents in the study as appropriate for Structural Equation Model (SEM), the rule of the thumb was followed (Hoe, 2008) in which any number above 200 is understood to provide sufficient statistical power for data analysis. Oke, Ogunsami, and Ogunlana (2012) specified that SEM requires an appropriate sample size in order to produce reliable estimates. They further indicate that a sample size of between 300 and 400 should be appropriate for structural equation model. This is supported by Bacon (2001) who recommends a sample size of at least 200 but not exceeding 400. However, Von Der Heide and Scott (2007) pointed out that when the sample size exceeds 400 to 500 participants, the SEM assessment becomes too delicate and almost any distinction is identified, making goodness-of-fit measure show bad fit. It can thus be concluded that a minimum and maximum sample of 200 and 400 respectively, is needed for SEM research studies. Hence, the researcher of this study were considered 400 number of respondents to answer the survey questionnaire.

Research Instrument

Primary data were used to gather information about this study which consists of four questionnaires, namely: organizational commitment (Ajje, Soyemi, & Omotunde, 2015), employee engagement (Li, 2016), work environment (Mayowa-Adebara & Aina, 2016), and creativity and innovation (Gichohi, 2014). The survey questionnaires utilized in the conduct of the study was sourced from various related researches. Modification of the questionnaire was carried out to make the instrument more applicable to the current setting of the study. The draft was first shown to the researcher’s adviser for comments and suggestions, after which it was validated by six expert validators with an overall rating of 4.47 or very good. After the validation, pilot testing was conducted. Cronbach alpha was used to check the reliability of the items in the questionnaire with the following measures: organizational commitment (0.709), employee engagement (0.835), work environment (0.823) and creativity and innovation (0.908). Cronbach’s alpha consistency coefficient customarily ranges between zero to one. However, there was no lower limit to the coefficient. The closer the Cronbach alpha coefficient is to one, the larger the internal constancy of the items in the scale (Ritter, 2010). On the other hand, the following are the rules of thumb in measuring the reliability of the questionnaire using Cronbach alpha: if the result is greater than or equal to 0.9 it is excellent; greater than or equal to 0.8 is good; greater than or equal to 0.7 is acceptable; greater than or equal to 0.6 is questionable; greater than or equal to 0.5 is poor and greater than or equal to 0.4 is unacceptable.

In evaluating the level of organizational commitment of library personnel, the 5 point Likert Scale below was used.

Range of Mean	Descriptive Level	Interpretation
4.20 - 5:00	Very High	This means that the level of organization commitment is always observed.
3.40 - 4.19	High	This means that the level of organization commitment is oftentimes observed.
2.60 - 3.39	Moderate	This means that the level of organization commitment is sometimes observed.
1.80 - 2.59	Low	This means that the level of organization commitment is rarely observed.
1.00 - 1.79	Very Low	This means that the level of organization commitment is not observed.

In determining the level of employee engagement, the 5-point Likert Scale below was used.

Range of Mean	Descriptive Level	Interpretation
4.20 - 5:00	Very High	This means that the level of employee engagement is always observed.
3.40 - 4.19	High	This means that the level of employee engagement is oftentimes observed.
2.60 - 3.39	Moderate	This means that the level of employee engagement is sometimes observed.
1.80 - 2.59	Low	This means that the level of employee engagement is rarely observed.
1.00 - 1.79	Very Low	This means that the level employee engagement is not observed.

In determining the level of work environment, the 5 point Likert Scale below was used.

Range of Mean	Descriptive Level	Interpretation
4.20 - 5:00	Very High	This means that the level of work environment is always observed.

3.40 - 4.19	High	This means that the level of work environment is oftentimes observed.
2.60 - 3.39	Moderate	This means that the level of work environment is sometimes observed.
1.80 - 2.59	Low	This means that the level of work environment is rarely observed.
1.00 - 1.79	Very Low	This means that the level of work environment is not observed.

In assessing the level of creativity and innovation of library personnel, the 5 point Likert Scale below was used.

Range of Mean	Descriptive Level	Interpretation
4.20 - 5:00	Very High	This means that the level of creativity and innovation is always observed.
3.40 - 4.19	High	This means that the level of creativity and innovation is oftentimes observed.
2.60 - 3.39	Moderate	This means that the level of creativity and innovation is sometimes observed.
1.80 - 2.59	Low	This means that the level of creativity and innovation is rarely observed.
1.00 - 1.79	Very Low	This means that the level of creativity and innovation is not observed.

Data Collection

Several procedures were performed in collecting the data. The researcher asked permission to conduct the study from the research adviser. A letter was sent to the respective private school heads duly noted by the Dean of Professional Schools, asking permission to conduct a survey to library personnel in Davao Region. The preliminary draft of conducted questionnaire was forwarded to the research adviser for possible correction and comments; afterward, the said questionnaire was forwarded to the panel of experts for reliability and validation. Upon approval, the researcher personally distributed and administered the research instrument to the respondents to ensure one hundred percent retrieval of the questionnaire. The researcher also asked the assistance of the library head or chief librarian in administering the survey questionnaires to the respondents as well as the retrieval of the filled-up questionnaires.

After retrieving all questionnaires, screening of the survey responses was performed to minimize the possible outliers during the analysis. Then, the researcher collated and tabulated the data taken from the respondents. After which, the responses were encoded using MS Excel based on the sequence of items presented in the questionnaire. Lastly, analysis and interpretation of data wherein results were done on the purpose of the study.

Statistical Tools

The data gathered were classified, analyzed and interpreted using the following appropriate statistical tools.

Mean. This was used to measure the level of work environment, organizational commitment, employee engagement and creativity and innovation.

Pearson Product Moment Correlation (Pearson-r). This was utilized to determine the interrelationships between work environment, organizational commitment, employee engagement and creativity and innovation.

Structural Equation Modeling. This was used in order to explore the best fit model. In testing the factors, there is a need to carry out factor analysis on latent variables suggested a cut-off value of 0.50. The essence of the test was to ensure the elimination of attributes with low correlations with the attributes of other latent factors in the final structural equation mode. The cut-off value was affected by sample size but a range of 0.45 to 0.50 was deemed appropriate.

In evaluating the goodness of best fit of the models, the following indices were computed and should meet the criteria: CMIN/DF should be $0 < 2$ with a p-value > 0.05 ; Tucker-Lewis should be > 0.9 ; Comparative Fit Index (CFI) should be > 0.9 ; Goodness of Fit Index (GFI) should be > 0.9 ; Normative Fit Index (NFI) should be > 0.9 ; and Root Mean Square Error of Approximation (RMSEA) should be < 0.05 and P Close File (PCLOSE).

Ethical Consideration

Ethics were observed in the conduct of the study. Before the floating of the questionnaire, the preliminaries of the study were sent for review to the University of Mindanao Ethics Review Committee to ensure that ethics was observed in the conduct of the study.

Voluntary Participation. The researcher ensured that none of the respondents were compelled to engage in this study; instead, it was based on their willingness to answer the survey questionnaire with regard to the study's objectives. The participation of the respondents was completely voluntary and anonymous to protect their privacy and information was given whenever the respondents did not understand, before deciding whether to participate or not in the study. Direction in the questionnaire were clearly stated before administration of questionnaire so that respondents don't have difficulty in answering the questions.

Privacy and Confidentiality. It is part of the acquisition of primary data that no names of the respondents or answers for that matter shall be divulge to anybody because it is strictly confidential and are used only for research purposes. To ensure protection of both parties, the name of the respondent did not appear anywhere and no one knew about the specific responses of the respondents except the researcher. Moreover, the identity of the respondents was not shown in any of the study's chapter. It is very confidential that is why the researcher assigned a number to the responses, and only the researcher had the key to indicate which number belongs to which respondent. After extracting the data in questionnaires that the respondents had answered, it was disposed according to standard procedure of the ethics and review committee.

Informed Consent Process. The study had undergone the informed consent process applying the principle of respect for person who may solicit consent, how and when it was done. In this study, it was done in the form of letter asking permission from respective presidents and/or school administrator from different private schools in Davao Region to allow their library personnel as respondents in the study. And to ensure the smooth administration of questionnaires, the assistance of the library head is deemed necessary for official action and possible distribution of the same.

Recruitment. The recruitment process of this research was controlled by the head of institution since the researcher asked permission from them to conduct the study where the respondents are currently employed. It was also stated in the letter that only library personnel were considered as respondents in this study. In addition, the researcher was asked the assistance of the library head of each schools to assist in the administration of the study since they personally know their personnel. No other personnel were asked to assist the researcher in meeting the required number of respondents in the study.

Risks. The researcher thought that this study includes future risks and discomforts in which the probability and magnitude of possible harms implied by involvement in the research is not higher than those experienced by respondents in their daily lives. The research focused only on the respondents' view; it is feasible that they may also experience discomfort when answering some of the survey questions. Just in case this happens, respondents may choose not to proceed and withdraw as a research participant. It is the researcher's responsibility not only to safeguard respondents from the hazards of damaged connected with involvement it the study, but also to adhere to ethical norms.

Benefits. The results of the study were beneficial to the respondents because it would encourage them to start analyzing their own creative traits and discover the characteristics that make them a creative person. As such, it would stimulate their creative skills and innovative behavior in the workplace. The study would be helpful to the Presidents and/or Administrators of each school where the library personnel are currently employed through redesigning systems and processes that focused on the creation of atmosphere that inspires library personnel to think beyond their routine tasks and duties. With this kind of environment, library personnel would be engaged and committed to think outside of the box which generates excitement, passion and creativity. The researcher is optimistic that the findings of the study would spur creativity and innovation that would eventually result to high productivity and improve the library output of the respondents.

Plagiarism. The researcher assured that sources used were properly cited. The idea of the authors was paraphrased and synthesized properly to avoid any plagiarism throughout the whole study. This paper also underwent Turnitin process to guarantee that the paper was not plagiarized.

Fabrication. The researcher made it a point that information presented in the study was not fabricated; hence, all were properly cited to give credit to the authors. Other explanations expounded to support the authors are based on personal experience and real life situations and no misinterpretations of conclusions, findings and remarks created.

A Structural Equation Model on Creativity and Innovation of Library Personnel in Davao Region

Falsification. The researcher honestly declared that data or results presented in the study are accurate. There was no alteration or omission of the results to support claims and hypothesis in the study. Inappropriately manipulation of results or producing fakes data to fit a preferred hypothesis or alteration of data to make them appear more convincing is an ethical violation thus the researcher avoided it. Thereby, the researcher made certain that there was no exaggeration of explanations and misrepresentation in any manner presented.

Conflict of Interest. The researcher made sure that conflict of interest that may interfere with the exercise of professional discretion and impartial judgement in conducting the study were avoided. If in case a conflict exists, it must be managed effectively to maintain the integrity of research and public trust. Disclosure of such interest is required. Further efforts are needed to ensures that there is no trace of conflict of interest, financial or otherwise that could affect the results of the study. In addition, conflict of interest is strictly observed and avoided in the endeavor of the study.

Deceit. This study presented the true purpose of having a research; hence, there was no hiding as to the author's identity and the nature of the study. Everything was done honestly, work dedicated towards the development of new knowledge. Misleading other people is an act of deception so it is highly discouraged. Thus, any form of deceit on the respondents is avoided to prevent potential harm.

Permission from Organization/Location. The researcher ensured the written permission from the schools in which the research was conducted or the location in which the data was collected and make sure that when getting written permission, the person to talk has the authority to give the permission sought and that the activities are organized in advance. In this study, the permission was addressed to School President and/or School Administrator.

Authorship. The author of this research was the one whose name appeared in this manuscript's title page. In which he makes significant contributions to the design and acquisition of information or the evaluation and interpretation of information; drafts the article or reviews it critically for significant intellectual material and is liable for the final approval version to be published. In addition, he made an important contribution to the research and assumed responsibility for at least some of the manuscript's material, including a review of the appropriate raw data; read and agreed to the manuscript prior to publishing and agreed to be named as an author.

III. Results and Discussions

Introduced in this section are the findings, results and discussions based on the responses of the respondents on the creativity and innovation of library personnel in Davao Region. The discussions begin with the level of organizational commitment, level of employee engagement, level of work environment, level of creativity and innovation; the correlation between organizational commitment and creativity and innovation, employee engagement and creativity and innovation, work environment and creativity and innovation. Lastly, the best fit model that predicts creativity and innovation.

Level of Organizational Commitment of Library Personnel

Depicted in Table 1 is the level of organizational commitment of library personnel in the Davao Region. The data obtained an overall mean rating of 3.87 with a standard deviation of 0.587, described as *high*. This meant that the organizational commitment of library personnel understudy is *oftentimes observed*.

As indicated in the table, all indicators of organizational commitment were rated with a descriptive level of *high* but differed in their mean rating. These are *continuance commitment* which earned the lowest mean rating of 3.74: and *affective commitment* which obtained the highest mean rating of 4.03.

Moreover, the high level of organizational commitment is an indication that library personnel have the feeling of being part of the library, stay in the library as a matter of necessity, also believe that a person must always be loyal to his or her current employer as they were taught the value of loyalty.

This is an articulation of the pronouncement of Susanty et al. (2013) that employees are regarded as committed to an organization if they willingly continue their association with the organization and devote considerable effort in achieving organizational goals. In support, Ahmad et al. (2009) opined that committed employees can also be described as those who are highly involved with their organizations and like to remain in the organization. Bozlagan et al. (2010) also pronounced that employees are willing to give their personal contribution to the well-being of the organization. In addition, committed employees enjoy being in the organization and consequently this commitment means focusing on organizational goals and applying more effort and positive performance that leads these employees to display innovative behavior. Committed employees work diligently to promote the services of the organization and strive for ongoing enhancement (Mayowa-Adebara & Aina, 2016).

Table 1
Level of Organizational Commitment of Library Personnel in Davao Region

Indicator	SD	Mean	Descriptive Level
Affective Commitment	0.632	4.03	High
Continuance Commitment	0.721	3.74	High
Normative Commitment	0.614	3.83	High
Overall	0.587	3.87	High

Level of Employee Engagement of Library Personnel

Displayed in Table 2 is the level of employee engagement of library personnel in Davao Region. It had an overall mean rating of 3.97 with a standard deviation of 0.527, described as *high*. This meant that the employee engagement of library personnel understudy is *oftentimes observed*.

It was noted in the data that the mean score of the indicators of employee engagement were as follows: *vigor* had the lowest mean rating of 3.90 or *high*; and *dedication* garnered the highest mean rating of 4.09 or *high*.

Meanwhile, the high level of employee engagement of library personnel is an indication that they are enthusiastic about their job, proud of the work that they do in the library, persevere even when things do not go well in their work and find their work full of meaning and purpose.

The result supports Yu (2013), who articulated that engaged employees experience activated positive affect such as feeling proud, inspired and enthusiastic. It has been verified that such active and positive feelings that result from engagement promote employee’s proactively at work, especially when employees perceive the situation as important and have control or influence over that situation. Kataria et al. (2013) also stated that organizations need more engaged employees who are vigorous, dedicated and absorbed by their job. Engaged employees are happily involved and experience their job as engaging and something to which they can devote their complete concentration. On the other hand, Meswantri and Ilyas (2018) affirmed that engaged employees are enthusiastic about their work, proud of the work they have accomplished and stay inspired and diligent without feeling threatened by the problems they face.

Table 2
Level of Employee Engagement of Library Personnel in Davao Region

Indicator	SD	Mean	Descriptive Level
Vigor	0.546	3.90	High
Dedication	0.594	4.09	High
Absorption	0.570	3.91	High
Overall	0.527	3.97	High

Level of Work Environment of Library Personnel

Shown inTable 3 is the data for the level of work environment of library personnel in Davao Region. The data reflected an overall mean rating of 3.54 with a standard deviation of 0.458, described as *high*. This meant that the work environment library personnel understudy is *oftentimes observed*.

It could be gleaned from the table that the mean rating of each indicator of work environment are as follows: *physical comfort* earned the lowest mean rating of 2.99 or *moderate*; and *task orientation* obtained the highest mean rating of 3.81 or *high*.

The high level of work environment of library personnel suggests that their supervisor always checks on them to discuss future work goals as well as giving them full credit for ideas they contributed, details of assigned jobs are explained and they pay a lot of attention on getting the work done.

The result is congruent with the study of Umamaheswari and Krishnan (2016) that organizations who provide employee-friendly work environment create a good sense of trust among employees because they feel that the organization cares about them and this will become a factor considerably related to their commitment. Orji and Enyiamaka (2017) averred that quality work environment allows employees to put their best effort to achieve the aim and objective of the organization. With this kind of environment, employees feel at ease and appreciated. However, when employees’ experience poor quality work environment, it makes them less committed to their jobs which end up with work-related issues such as absenteeism, tardiness, high turnover and negligence of duties.

Table 3
Level of Work Environment of Library Personnel in Davao Region

Indicator	SD	Mean	Descriptive Level
Work Pressure	0.668	3.63	High
Task Orientation	0.534	3.81	High
Supervisory Support	0.598	3.71	High
Physical Comfort	0.642	2.99	Moderate
Overall	0.458	3.54	High

Creativity and Innovation of Library Personnel

Divulged in Table 4 is the level of creativity and innovation of library personnel in Davao Region. The data indicated an overall mean rating of 3.94 with a standard deviation of 0.467, described as *high*. This meant that creativity and innovation of library personnel understudy is *oftentimes observed*.

It could be examined from the data that the mean rating of the indicators of creativity and innovation are as follows: *empowerment* got the lowest mean rating of 3.83 or *high*; and *leader encouragement for creativity and innovation* obtained the highest mean rating of 3.99 or *high*.

The high level of creativity and innovation is a manifestation that library personnel have a supervisor who respects, emphasizes and reinforces new ideas, rewards and recognizes employees who are creative and innovative, encourages progress and development in career and profession, try to come up with ways of solving problems and have the freedom to come up with new and practical ideas.

The outcome of the study is in consonance with the proposition of Maier et al. (2013) who underscored that successful implementation of creativity and innovation can only be done with management support because of the latter’s specific role in promoting creativity and innovation in the organization. Creativity flourishes when organizations allow their employees to enter a space of creative freedom, a freedom needed for innovation and creativity to thrive (Blakey, 2015). In addition, Ukachi and Onuoha (2015) stressed that improvement of professional knowledge and competence are necessary for creativity and innovation and to cope with the rapid and numerous changes taking place in the library.

Table 4
Creativity and Innovation of Library Personnel in Davao Region

Indicator	SD	Mean	Descriptive Level
Problem Identification and Information Searching	0.507	3.97	High
Atmosphere for Creativity and Innovation	0.498	3.95	High
Leader Encouragement for Creativity and Innovation	0.582	3.99	High
Empowerment	0.528	3.83	High
Overall	0.467	3.94	High

Correlations between Organizational Commitment and Creativity and Innovation

Exhibited in Table 5 is the data results of correlations between organizational commitment and creativity and innovation of library personnel in Davao Region with an overall computed r-value of 0.460 ($p < 0.05$); hence, significant. The null hypothesis that there is no significant relationship between organizational commitment and creativity and innovation was rejected. The finding signified that as organizational commitment increases there is also a corresponding increase in the creativity and innovation of library personnel understudy.

Moreover, when each of the indicators of organizational commitment were correlated with specific indicator of creativity and innovation, the obtained overall r-values ranged from 0.356 to 0.458 all with $p < 0.05$; hence, all significant. The variable relationship test shows an important connection between organizational commitment and creativity and innovation, leading to the rejection of null hypothesis. This means that there is an association between organizational commitment and creativity and innovation.

This finding is supported by Hou et al. (2011) who disclosed that employees with high organizational commitment show strong influence on creativity, because they would be more skilled in integrating resources with the organization’s goal. In the same token, Kumari and Afroz (2013) unveiled that a committed person is someone who is innovative, creative and able to satisfy customer needs and is also looking for ways to improve the operations and services of the organization.

This claim is aligned with the study of Hakimian et al. (2016), which explains organizations need to be innovative to compete with their competitors and they need committed employees to stay in the organization with appropriate performance and innovation. Committed employees enjoy being in the organization and consequently this commitment means focusing on organizational goals and applying more effort and positive performance that leads these employees to display innovative behavior. Committed employees work diligently to promote the services of the organization and strive for ongoing enhancement (Mayowa-Adebara & Aina, 2016).

Table 5
Correlations between Organizational Commitment and Creativity and Innovation

Organizational Commitment	Creativity and Innovation				Overall
	Problem Identification and Information Searching	Atmosphere for Creativity and Innovation	Leader Encouragement for Creativity and Innovation	Empowerment	
Affective Commitment	0.345* (0.000)	0.420* (0.000)	0.340* (0.000)	0.411* (0.000)	0.428* (0.000)
Continuance Commitment	0.318* (0.000)	0.356* (0.000)	0.287* (0.000)	0.392* (0.000)	0.382* (0.000)
Normative Commitment	0.340* (0.000)	0.419* (0.000)	0.334* (0.000)	0.431* (0.000)	0.430* (0.000)
Overall	0.373* (0.000)	0.442* (0.000)	0.356* (0.000)	0.458* (0.000)	0.460* (0.000)

Correlation between Employee Engagement and Creativity and Innovation

Depicted in Table 6 is the data results of correlations between employee engagement and creativity and innovation of library personnel in Davao Region with an overall computed r-value of 0.520 ($p < 0.05$); hence, significant. The null hypothesis was rejected and this implied that there is a significant relationship between employee engagement and creativity and innovation. The finding signified that for every increase of employee engagement there is an increase in the creativity and innovation of library personnel understudy.

Additionally, each indicator of work environment, when correlated with a specific indicator of creativity and innovation, the obtained overall r-values ranged from 0.346 to 0.437 all with $p < 0.05$; hence, all significant. The test of relationship between variables reveals a significant positive relationship between employee engagement and creativity and innovation which leads to rejecting the null hypothesis of the study. This signifies that employee engagement is correlated with creativity and innovation.

The finding is congruent with the research work of Rao (2016) who pointed out that employee engagement leads to innovative behavior when employees collaborate with other employees. Engagement and innovation reinforces each other. An engaged staff are more likely to be innovative and an innovative organization is more likely to motivate and engage its employees. Pedraza, Mesa, and Gaviria (2016) also stressed that employee engagement highly influence the innovative behavior of employees in the organization. As such, employee engagement has a key role in the operation of organization especially in designing tasks, elaboration and implementation of service. While, Osborne and Hammoud (2017) indicated that leaders of organizations that fully support employees promotes continuous learning and are transparent in their decision-making which have a greater impact on the increased level of employee engagement. Dedicated and meaningful work enables employees to realize how valuable they are within the organization and makes them engaged. The significant relationship between employee engagement and creativity and innovation was also reinforced by Gichohi’s study in 2014 who enunciated that employee engagement assumes a critical precursor role to creativity and innovation at the workplace. When employees have an emotional attachment to the organization, they are more likely to exert more effort to accomplish their job above and beyond their responsibility, leading to creative behavior among staff. To nurture empowering atmosphere, there is a need to challenge work processes, environment, systems and patterns of thinking in the library set-up.

Table 6
Correlations between Employee Engagement and Creativity and Innovation

Employee Engagement	Creativity and Innovation				Overall
	Problem Identification and Information Searching	Atmosphere for Creativity and Innovation	Leader Encouragement for Creativity and Innovation	Empowerment	
Vigor	0.441* (0.000)	0.445* (0.000)	0.381* (0.000)	0.419* (0.000)	0.476* (0.000)
Dedication	0.479* (0.000)	0.492* (0.000)	0.410* (0.000)	0.429* (0.000)	0.511* (0.000)
Absorption	0.408* (0.000)	0.428* (0.000)	0.354* (0.000)	0.423* (0.000)	0.455* (0.000)
Overall	0.479* (0.000)	0.493* (0.000)	0.413* (0.000)	0.458* (0.000)	0.520* (0.000)

Correlations between Work Environment and Creativity and Innovation

Disclosed in Table 7 is the data results of correlations between work environment and creativity and innovation of library personnel in Davao Region with an overall computed r-value of 0.439 ($p < 0.05$) hence significant. The null hypothesis was rejected; hence, there is a significant relationship between work environment and creativity and innovation of library personnel. The finding signified that in every increase of work environment increases the creativity and innovation of library personnel understudy.

Further, when each of the indicators of work environment were correlated with all the indicators of creativity and innovation, the overall r-values ranged from 0.346 to 0.437 all with $p < 0.05$; hence, all significant. The test of relationship between variables reveals a significant positive relationship between work environment and creativity and innovation which leads to the rejection of null hypothesis of the study. This implies that work environment is linked with creativity and innovation.

The finding is aligned with the study conducted by Awang et al. (2014) that work environment has a significant influence on the formation of innovative work behavior of employees in the organization. An organization strives to raise their employees' innovative work behavior to improve performance and competitiveness. Jamiu and Ndubuisi (2014) avowed that an enabling work environment, facilitated by the organizational culture, is the most influential factor in developing and facilitating innovativeness of employees in the organization. Also this is in agreement with Dul and Ceylan's (2011) study, which speaks of work environment which enhances employees' creativity. In addition, the significant relationship between work environment and creativity and innovation was also strengthened by Szobiova (2015) who pronounced that a healthy work environment has the ability to influence innovation and creativity among employees in the organization. On the other hand, Walter's (2012) study demonstrated that there is a correlation between work environment and the impediments for creativity in the workplace. His research further revealed that the main barriers were fear of risk taking, physical work environment, time pressure, autonomy or freedom and organizational impediments in the form of control and internal conflict between employees.

Table 7
Correlations between Work Environment and Creativity and Innovation

Work Environment	Creativity and Innovation				Overall
	Problem Identification and Information Searching	Atmosphere for Creativity and Innovation	Leader Encouragement for Creativity and Innovation	Empowerment	
Work Pressure	0.331* (0.000)	0.252* (0.000)	0.220* (0.000)	0.240* (0.000)	0.294* (0.000)
Task Orientation	0.436* (0.000)	0.357* (0.000)	0.306* (0.000)	0.367* (0.000)	0.413* (0.000)
Supervisory Support	0.412* (0.000)	0.404* (0.000)	0.373* (0.000)	0.366* (0.000)	0.439* (0.000)
Physical Comfort	0.155* (0.000)	0.185* (0.000)	0.157* (0.002)	0.184* (0.000)	0.193* (0.000)
Overall	0.437* (0.000)	0.393* (0.000)	0.346* (0.000)	0.379* (0.000)	0.439* (0.000)

The Best Fit Model that Predicts Creativity and Innovation

The analysis on the interrelationships among organizational commitment, employee engagement and work environment towards the creativity and innovation of library personnel in the Davao Region consisted of four models. Each model was tested to achieve the best fit model of creativity and innovation. The models have a framework that could be decomposed into two sub-models which are the measurement model and the structural model. The measurement model represents the measure loads on each factor to their latent constructs while the structural model defines relations among the latent variables. In addition, the assessment of fit was used as point of reference for accepting and rejecting the model. The findings established that the model were manifests the importance of organizational commitment, employee engagement and work environment as predictors of creativity and innovation. Organizational commitment, employee engagement and work environment are essential components of creativity and innovation of library personnel which splurge and flourish their creative skills and innovative behavior in the library.

Hypothesized Model 4 satisfied the criteria for the best fit model, the model apparently showed the importance that one out of the three factors of organizational commitment, two out of three factors of employee engagement and two out of four factors of work environment have strong interconnectedness with each other. Organizational commitment has a direct association with employee engagement, work environment and creativity and innovation. The best fit model shows that all tested variables are linked to each other.

The best fit model on creativity and innovation suggests that creativity and innovation of library personnel is best anchored on organizational commitment which is defined by affective commitment, and supported by employee engagement which is measured by vigor and dedication, and reinforced by work environment which is grounded on work pressure and physical comfort.

The generated best fit model on creativity and innovation conforms with the idea of Hou et al. (2011) stressing that a committed employee who shows better creative and innovative performance has the capacities and skills to integrate resources in the workplace and looks for ways to improve the operations of the organization, thus meeting its mandate. Rao (2016) articulates that to further enhance the creativity and innovation of employees, the organization should provide facilities and support employees to foster engagement among them and in return cultivate their creative and innovative behavior. Lastly, Amabile’s (2012) componential theory which identifies three individual characteristics that must be present for creative output: intrinsic motivation, domain-relevant skills, and creative-relevant cognitive processes is also supported by this study’s findings. Of these three, intrinsic motivation is considered to be the individual pursuit of tasks for its own sake which is considered critical to creative performance.

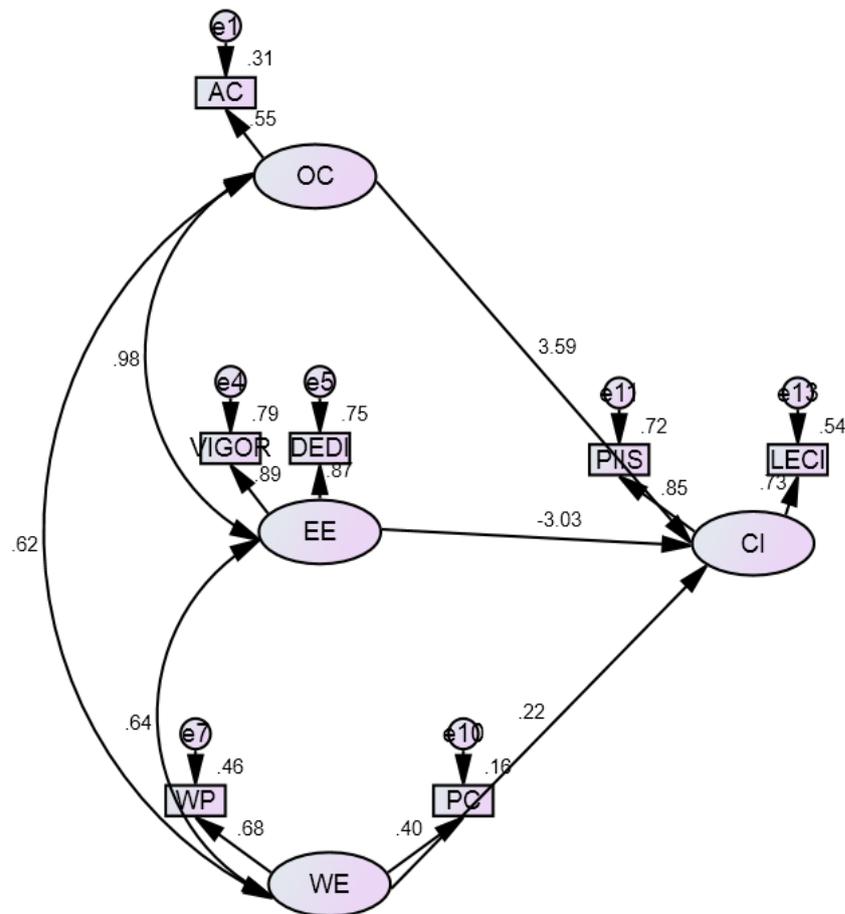


Figure 6. Structural Model 4 in Standard Solution

The generated structural Model 4 in standardized solution is shown in Figure 6. Results denoted that the latent variables organizational commitment represented by the measured variable affective commitment; employee engagement represented by the measured variables vigor and dedication; and work environment represented by the measured variables work pressure and physical comfort influenced the latent variable creativity and innovation.

The model undoubtedly illustrates the importance of organizational commitment, employee engagement and work environment as predictors of creativity and innovation. However, it could be gathered from the model that out of three indicators of organizational commitment, only one remained as a significant predictor of creativity and innovation, affective commitment. For employee engagement, only two out of three indicators were found to effect creativity and innovation namely: vigor and dedication. For work environment, out of four indicators, only two were found significant, to wit: work pressure and physical comfort. On the part of creativity and innovation, only two out of four indicators remained to be measured, problem identification and information searching and for creativity and innovation, leader encouragement.

Thus, the findings suggest that creativity and innovation was best anchored on organizational commitment which was measured in terms of affective commitment; employee engagement which was measured in terms of vigor and dedication; and work environment which was measured in terms of work pressure and physical comfort.

The goodness of fit indices for Structured Model 4 presented in Figure 6 depicts the interrelationship of the following: organizational commitment, employee engagement and work environment towards creativity and innovation. It could be gleaned from the Table 8 that all indices of Model 4 were consistently fall within acceptable ranges. Chi-Square/Degrees of Freedom (CMIN/DF) is 1.383; p-value is 0.189; Root Mean Square of Error Approximation (RMSEA) is 0.031; P-close is 0.760; Normed Fit Index (NFI) is 0.987; Tucker-Lewis Index (TLI) is 0.991; Comparative Fit Index (CFI) is 0.996 and Goodness of Fit Index (GFI) is 0.991. The result of the goodness of fit of Model 4 is highly acceptable since all indices had met the set criterion against the obtained model fit value. These indices satisfied the requirement of the goodness of fit measures. Moreover, this is an indication that generated Model 4 is a very good fit model.

Table 8
Summary of Goodness of Fit Measures of Structural Model 4

Model	CMIN/DF 0<value>2	P-Value > .05	NFI > .95	TLI > .95	CFI > .95	GFI > .95	RMSEA < .05	P-Close > .05
1	6.565	0.000	0.870	0.857	0.887	0.846	0.118	0.000
2	2.416	0.000	0.961	0.967	0.976	0.959	0.060	0.143
3	1.949	0.005	0.971	0.977	0.986	0.976	0.049	0.506
4	1.389	0.189	0.987	0.991	0.996	0.991	0.031	0.760

Legend: CMIN/DF - Chi-Square/Degrees of Freedom
 NFI - Normed Fit Index
 TLI - Tucker-Lewis Index
 CFI - Comparative Fit Index
 GFI - Goodness of Fit Index
 RMSEA - Root Means Square of Error Approximation
 P-close - P of Close Fit
 P-value - Probability Level

V. Conclusion

In the light of the findings of the study, the following conclusions are drawn.

Results reveal high levels of organizational commitment, employee engagement, work environment and creativity and innovation, signifying that these variables are oftentimes observed by library personnel. On the other hand, there are significant relationships between organizational commitment and creativity and innovation, employee engagement and creativity and innovation, and work environment and creativity and innovation. Furthermore, of the four explored structural models, only generated Model 4 has the indices that consistently indicated an outstanding fit to the data, therefore, it is identified as the best fit structural model.

The null hypothesis stating that there is no model that best fits the creativity and innovation of library personnel in Davao region was rejected. This supports the propositions of Hou et al. (2011) which declared that employees who are highly committed in the organization, promotes creativity and innovation and Nawaz et al. (2014) whose findings showed positive and supportive links between employee engagement and creativity. In addition, the componential theory (Amabile, 2012) which emphasized that work environment affects creativity of employees which are the basic sources of organizational innovation.

VI. Recommendations

Based on the results of the study, the following recommendations are made. The high level of organizational commitment, employee engagement, work environment and creativity and innovation of library personnel suggest that there is still opportunity to improve by raising these to a very high level. This can be achieved by creating and encouraging good working environments that promote and empower library personnel to display engaged, creative and innovative conduct that will enable library personnel to be more involved at work and assist them to become more productive in the library.

The significant relationship of the three variables: organizational commitment, employee engagement and work environment with creativity and innovation signifies that these variables may become the priority of library personnel because the higher the level of these variables, the higher the level of creativity and innovation. This can be done by harnessing the potential library personnel through continuing professional development and exposure to seminars and trainings with the aim of improving his or her profession to become a versatile and competitive professional in response to the demands of embracing creativity and innovation in the library.

The best fit model shows organizational commitment, employee engagement and work environment as the strong predictors of creativity and innovation. This can be achieved through the full support of the school administrators in revisiting school policies that would generate a healthy work atmosphere, encourage and maintain a higher level of commitment and engagement of library personnel, to enrich their creative abilities and innovative behavior. The human resource and the immediate supervisor may restructure existing activities and programs that will assist and motivate

library personnel to become effective and productive. They may always be the driving force to boost the desire of the library personnel to stay and remain faithful to the organization.

Similar studies may be conducted to determine the strongest predictors of creativity and innovation for other groups and dimensions, including indicators which do not show significance in the best fit model.

References

- [1] Abigail, A. I., & Oluwatobi, O. (2015). Job satisfaction and organizational commitment among library personnel in selected libraries in Ogun State, Nigeria. *Information and Knowledge Management*, 5(10), 21-30. Retrieved from www.iiste.org
- [2] Adio, G., & Popoola, S. O. (2010). Demographic variables and self-efficacy as factors influencing career commitment of librarians in Federal University Libraries in Nigeria. *Library Philosophy and Practice*, 1-19. Retrieved from <https://search.proquest.com/docview/224102954?accountid=31259>
- [3] Ademodi, D. T., & Adepaju, E. O. (2009). Computer skills among librarians in academic libraries in Odo and Ekiti State, Nigeria. *Library Philosophy and Practice*, 1-7. Retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi>
- [4] Ahmad, U. N. U., Amin, S. M., & Ismail, W. K. W. (2009). The impact of technostress on organizational commitment among Malaysian academic librarians. *Singapore Journal of Library and Information Management*, 38, 103-123. Retrieved from <https://www.las.org.sg/wp/sjlim/files/SJLIM2009Norulkamar.pdf>
- [5] Ajie, I. A., Soyemi, O. D., & Omotunde, O. I. (2015). Personnel motivation as correlate of organizational commitment in academic libraries in Lagos State, Nigeria. *Global Journal of Human-Social Science Research*, 15(4). Retrieved from https://globaljournals.org/GJHSS_Volume15/4-Personnel-Motivation-as-Correlate.pdf
- [6] Akinyemi, N., & Ifijeh, G. (2013). Leadership style and job commitment of library personnel in universities: A study of private university libraries in Southwest Nigeria. *Journal of Information and Knowledge Management*, 4(1), 92-105. Retrieved from <https://www.ajol.info/index.php/ijikm/article/view/144614/134257>
- [7] Al Mehrzi, N., & Singh, S. K. (2016). Competing through employee engagement: A proposed framework. *International Journal of Productivity and Performance Management*, 65(96), 831-843. Retrieved from <https://search.proquest.com/docview/1798630450?accountid=31259>
- [8] Al Zefeiti, S. M. B., & Mohamad, N. A. (2017). The influence of organizational commitment on Omani public employees' work performance. *International Review of Management and Marketing*, 7(2), 151-160. Retrieved from <https://www.econjournals.com/index.php/irmm/article/viewFile/3982/pdf>
- [9] Al-Omari, K., & Okasheh, H. (2017). The influence of work environment on job performance: A case study of engineering company in Jordan. *International Journal of Applied Engineering Research*, 12(24), 15544-15550. Retrieved from https://www.ripublication.com/ijaer17/ijaerv12n24_223.pdf
- [10] Alabduljader, S. (2019). The effective role of work environment and its influence on managerial innovation. *Management Science Letters*, 9(1), 91-104. Retrieved from http://www.growingscience.com/msl/Vol9/msl_2019_9.pdf
- [11] Aladwan, K., Bhanugopan, R., & Fish, A. (2013). To what extent the Arab workers committed to their organizations. *International Journal of Commerce and Management*, 23, 306-326. Retrieved from <https://doi.org/10.1108/IJCoMA-03-2012-0020>
- [12] Alsaad, A. M. (2016). *Investigating the effects of employee engagement on the employee's career commitment and retention in the manufacturing industry* (Order No. 10246045). Retrieved from <https://search.proquest.com/docview/1884772731?accountid=31259>
- [13] Amabile, T.M. (2012). Componential theory of creativity. *Harvard Business School*, 12(96), 1-10. Retrieved from <https://pdfs.semanticscholar.org>
- [14] Amusa, O. I., Iyoro, A. O., & Olabisi, A. F. (2013). Work environments and job performance of librarians in the public universities in south-West Nigeria. *International Journal of Library and Information Science*, 5(11), 457-461. Retrieved from <http://www.academicjournals.org/journal/IJLIS/article-full-text-pdf/07A6FF242586>

- [15] Anderson, N., Potocnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: a state-of-the-science review, prospective commentary and guiding framework. *Journal of Management*, 40(5), 1297-1333. Retrieved from <https://search.proquest.com/docview/1728718982?accountid=31259>
- [16] Anttila, E. (2014). *Components of organizational commitment: A case study consisting line managers from Finnish industrial company* (Master's thesis). Retrieved from <http://tampub.ut.fi/bitstream/handle/10024/96724/GRADU>
- [17] Armstrong, B. T. (2013). *Four steps for measuring workplace design*. Retrieved from www.forbes.com/sites/barbaraarmstrong/2013/02/18/four-steps-for-measuring-workplace-design-investments/
- [18] Atata, E. A., Eyene, E. T., & Sam, G. F. (2015). Creativity and innovation in library science and information management in academic libraries. *ASPROAEDU*, 1(1). Retrieved from <http://www.globalacademicgroup.com/journals>
- [19] Atata, E. A., Oji, H. E., & Tom, E. S. (2014). Libraries as platforms for innovation and creativity in information delivery services in a depressed economy: An overview of Nigeria. *Asia Pacific Journal of Multidisciplinary Research*, 2(5), 125-131. Retrieved from <http://oaji.net/articles/2014/1543-1418707120.pdf>
- [20] Attiq, S., Wahid, S., Javaid, N., Kanwal, M., & Shah, H. J. (2017). The impact of employees' core self-evaluation, and innovative work behavior. *Pakistan Journal of Psychological Research*, 32(1), 247-271. Retrieved from <https://search.proquest.com/docview/1949926787?accountid=31259>
- [21] Aturamu, Y. (2016). *Exploring employee disengagement perceptions in Canadian manufacturing companies: A multiple case study*. Retrieved from <https://search.proquest.com/docview/1952052327?accountid=31259>
- [22] Awang, A. H., Sapie, N. M., Hussain, M. Y., Ishak, S., & Yusof, R. M. (2014). *Organizational learning and work environment: A formation of innovative work behavior at small medium enterprises (SMEs)*. Retrieved from <https://search.proquest.com/docview/1674840538?accountid=31259>
- [23] Awolusi, O. D. (2014). Effects of motivation on employees' job commitment in the Nigeria banking industry: An empirical analysis. *International Journal of Business and Innovation Research*, 1(3), 1-17. Retrieved from www.eajournals.org
- [24] Bacon, L. D. (2001). *Using Amos for structural equation modeling in market research*. Retrieved from <https://www.bauer.uh.edu/jhess/documents/3.pdf>
- [25] Bagozzi, R., & Yi, Y., (2012). Specification, evaluation and interpretation of structural equations model. *Journal of the Academy of Marketing Science*, 40(1), 8-34. Retrieved from <https://www.researchgate.net/publication>
- [26] Baldwin, D. (2013). *Creating an environment for innovation*. Retrieved from <http://www.cssp.com/CD0902/CreatingInnovativeEnvironment/>
- [27] Batiacila, M. R. (2007). Managing public school libraries in a changing environment. A paper presented during the "2007 Division Summer Institute for Secondary Teachers in English and Teacher Librarians" April 10-20, 2007 at Gen. Emilio Aguinaldo National High School, Imus, Cavite, Philippines. Retrieved from <http://eprints.rclis.org/10588/1/8130570F.pdf>
- [28] Basara, S. W. (2017) Influence of work environment of performance in the public security sector with a focus on the police in Nairobi Kenya. *International Journal of Sustainable Development*, 10(11), 49-64. Retrieved from <file:///C:/Users/library/Downloads/SSRN-id3089215.pdf>
- [29] Bilal, A., Ahmad, H. M., Majid, F. (2018). How formalization impedes employees' creativity and organizational innovation: A case of advertising agencies in Pakistan. *NUML International Journal of Business and Management*, 13(1), 66-78. Retrieved <http://search.proquest.com>
- [30] Biranvand, A., Soheili, F., & Khasseh, A. A. (2015). Creativity of librarians in public libraries: Case study of public libraries of Fars Province (Iran). *Library Philosophy and Practice (e-journal)*, 1-17. Retrieved from <http://digitalcommons.unl.edu/libphilprac/1308>
- [31] Blakey, J. D. (2015). *The impact of workplace on innovation* (Doctoral dissertation, Brandman University). Retrieved from <https://search.proquest.com/openview/30f8cdf80307057a64536f2a6101/1?pq-origsite=gscholar&cbl=18750&diss=y>

- [32] Bonds, A. A. (2017). *Employees' organizational commitment and turnover intentions*. Retrieved from <http://scholarworks.waldenu.edu/cgi>
- [33] Bozlagan, R., Dogan, M., & Daoudov, M. (2010). Organizational commitment and case study of the Union of Municipalities of Marmara. *Regional and Sectoral Economic Studies*, 10(2), 29-57. Retrieved from <http://www.usc.es/economet/journals2/eers/eers1023.pdf>
- [34] Brundy, C. (2015). Academic libraries and innovation: A literature review. *Journal of Library Innovation*, 6(1), 22-39. Retrieved from <https://search.proquest.com.docview/1693621063?accountid=31259>
- [35] Carine, U., Shukla, J., & Oduor, J. (2015). Relationship between the determinants of employee creativity and project performance in Rwanda: Case of Imbaraga farmer maize sheller project. *European Journal of Business and Social Sciences*, 4(8), 1-13. Retrieved from <http://www.ejbss.com>
- [36] Chandrasekar, K. (2011). Workplace environment and its impact on organizational performance in public section organizations. *International Journal of Enterprise Computing and Business Systems*, 1(1), 1-19. Retrieved from <http://www.ijecbs.com>
- [37] Chen, M., Wang, Y. S., & Sun, V. (2012). Intellectual capital and organizational commitment. *Personnel Review*, 41, 321-339. Retrieved from <https://doi.org/10.1108/00483481211212958>
- [38] Cho, V., & Huang, X. (2012). Professional commitment, organizational commitment and the intention to leave for professional advancement. *Information Technology and People*, 25, 31-54. Retrieved from <https://doi.org/10.1108/09593841211204335>
- [39] Chua, S. J. L., Ali, A. S., & Lim, M. E. L. (2016). Physical environment comfort impacts on office employee's performance. *MATEC Web of Conference*, 66. Retrieved from <https://doi.org/10.1051/mateconf/20166600124>
- [40] Colgate, A. (2010). *Six effective ways to foster innovation*. Retrieved from <http://www.businessdictionary.com/article/510/ways-to-foster-innovation/>
- [41] Dabas, D., & Pandey, N. (2015). Self-efficacy and optimism as a predictor of organizational commitment among academicians in private and public sector institutions. *International Journal of Education and Management Studies*, 5(1), 83-88. Retrieved from <https://search.proquest.com/docview>
- [42] Decker, E. N. (2017). Encouraging continuous learning for librarians and library staff. *Library Management*, 38(6/7), 286-293. Retrieved from <https://doi.org/10.1108/LM-10-2016-0078>
- [43] Deepa, M., & Premlatha, D. (2015). A study on employee engagement in manufacturing industry with reference to Coimbatore. *International Journal of Current Research*, 7(6), 17070-17073. Retrieved from <http://www.journalcra.com>
- [44] Devi, U. N., Avanes, N. M., & Archana, B. S. (2012). Implications of employee engagement on environmental sustainability: An exploratory study. *Asia Pacific Journal of Management and Entrepreneurship Research*, 1(3), 317-327. Retrieved from <https://search.proquest.com/docview>
- [45] Diala, I., & Ude, S. O. (2015). Support for creativity and innovation, resistance to change, organizational commitment and motivation. *International Journal of Computer and Organization Trends*, 22(1), 1-8. Retrieved from <http://www.ijcotjournal.org>
- [46] Dixit, V., & Bhati, M. (2012). A study about employee commitment and its impact on sustained productivity in Indian auto-component industry. *European Journal of Business and Social Sciences*, 1(6), 34-51. Retrieved from <http://www.ejbss.com/recent.aspx>
- [47] Dousti, M., Moosaci, S. G., & Yousfi, Z. (2013). Study of relationship between organizational culture, organizational commitment and creativity of physical educational secretaries in Mazandran Province. *International Research Journal of Applied and Basic Sciences*, 5(11), 1893-1398. Retrieved from www.irjabs.com
- [48] Dul, J., & Ceylan, C. (2011). Work environments for employee creativity. *Ergonomics*, 54(1), 12. Retrieved from <https://search.proquest.com/docview>

- [49] Erturk, A. (2012). Linking psychological empowerment to innovation capability: Investigating the moderating effect of supervisory trust. *International Journal of Business and Social Science*, 3(14). Retrieved from <http://ijbssnet.com/journals>
- [50] Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4. Retrieved from <http://www.sciencepublishinggroup.com/j/ajtas>
- [51] Evans, J. R., & Lindsay, W. M. (2014). *Total quality management* (9th ed.). Andover: Cengage Learning.
- [52] Germano, M. A. (2011). Library leadership that creates and sustains innovation. *Library Leadership and Management*, 25(1), 1-14. Retrieved from <https://search.proquest.com/docview/898964472/accountid=31259>
- [53] Ghosh, K. (2015). Developing organizational creativity and innovation toward a model of self-leadership, employee creativity, creativity climate and workplace innovative orientation. *Management Research Review*, 38(11), 1126-1148. Retrieved from <https://search.proquest.com/docview>
- [54] Gichohi, P. M. (2014). The role of employee engagement in revitalizing creativity and innovation at the workplace: a survey of selected libraries in Meru Country-Kenya. *Library Philosophy and Practice (e-journal)*, 1-22. Retrieved from <https://search.proquest.com/docview/1737423326?accountid=31259>
- [55] Gitonga, L., & Gachunga, H. (2015). Influence of work environment on organizational performance in government ministries in Kenya. *Strategic Journal of Business and Change Management*, 2(83), 1044-1071. Retrieved from <http://strategicjournals.com/index.php/journal/article/viewFile/157/167>
- [56] Gunlu, E., Aksarayli, M., & Percin, N. S. (2010). Job satisfaction and organizational commitment of hotel managers in Turkey. *International Journal of Contemporary Hospitality Management*, 22, 693-717. Retrieved from <https://doi.org/10.1108/09596111011053819>
- [57] Gupta, M. (2015). *Impact of work pressure on creativity and innovation*. Retrieved from https://www.researchgate.net/publication/317543606_Impact_of_work_pressure_on_Creativity_and_Innovation
- [58] Hakimian, F., Farid, H., Mohd, N. I., & Nair, P. K. (2016). Importance of commitment in encouraging employees' innovative behavior. *Asia-pacific Journal of Business Administration*, 8(1), 70-83. Retrieved from <https://doi.org/10.1108/APJBA-06-2015-0054>
- [59] Hamid, N. Z. & Hassan, N., (2015). The relationship between workplace environment and job performance in selected government offices in Shah Alam, Selangor. *International Review of Management and Business Research*, 4(3), 845-851. Retrieved from www.jrmbjournal.com
- [60] Heye, D. (2006). *Creativity and innovation: Two key characteristics of the successful 21st century information profession*. Retrieved from <http://journal.sagepub.com/doi/10.1177/0266382106072255>
- [61] Hoe, S. L. (2008). Issues and procedures in adopting structural equation modeling technique. *Journal of Applied Quantitative Methods*, 3(1). Retrieved from <http://jaqm.ro/issues/volume-3,issue-1/pdfs/hoepdf>
- [62] Holagh, S. R., Noubar, H. B. K., & Bahador, B. V. (2014). The effect of organizational structure on organizational creativity and commitment within the Iranian municipalities. *Procedia-Social and Behavioral Sciences*, 156, 213-215. Retrieved from <https://doi.org/10.1016/j.sbspro.2014.11.175>
- [63] Hon, A. H., & Lui, S. S. (2016). Employee creativity and innovation in organizations. *International Journal of Contemporary Hospitality Management*, 28(5), 862-885. Retrieved from <https://search.proquest.com/docview>
- [64] Hopper, D., Coughlan, J., & Mullen, M, (2008). Structural equation modelling: Guidelines determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60. Retrieved from <https://search.proquest.com/docview>
- [65] Hou, Y., Gao, G., Wang, F., Li, T., & Yu, Z. (2011). Organizational commitment and creativity: the influence of thinking styles. *Annals of Economics and Finance*, 12(2), 411-431. Retrieved from <https://search.proquest.com/docview/916390632?accountid=31259>
- [66] Humborstad, S. I. W., & Perry, C. (2011). Employee empowerment, job satisfaction and organizational commitment: An in-depth empirical investigation. *Chinese Management Studies*, 5(3), 325-344. Retrieved from <https://doi.org/10.1108/17506141111163390>

- [67] Igboke, P. C. (2011). *Job satisfaction and performance of librarians in Federal University Libraries in South East Nigeria*. Retrieved from <http://www.unn.edu.ng/publications/files/images/patrick%20Chijioke.pdf>
- [68] Iqbal, A. (2011). Creativity and innovation in Saudi Arabia: An overview. *Innovation: Management, Policy and Practice*, 13(3), 376-390. Retrieved from <https://search.proquest.com/docview/1022640019?accountid=31259>
- [69] Jafri, M. H. (2010). Organizational commitment and employee's innovative behavior: A study in retail sector. *Journal of Management Research*, 10(1), 62. Retrieved from <https://search.proquest.com/openview>
- [70] Jantz, R. C. (2013). *Incremental and radical innovations in research libraries: An exploratory examination regarding the effects of ambidexterity, organizational structure, leadership and contextual factors*. Retrieved from <https://search.proquest.com/docview/1442192614?accountid=31259>
- [71] Jamiu, O. O., & Ndubuisi, U. M. (2017). Transformational leadership and organizational culture as predictors of employee creativity and innovation in Nigerian Oil and Gas Service industry. *Ife Psychologia*, 25(2), 325-349. Retrieved from <https://search.proquest.com/docview/2075501747?accountid=31259>
- [72] Kataria, A., Rastogi, R., & Garg, P. (2013). Organizational effectiveness as a function of employee engagement. *South Asian Journal of Management*, 20(4), 56-73. Retrieved from <https://search.proquest.com/docview>
- [73] Khalili, A. (2016). Linking transformational leadership, creativity, innovation and innovation-supportive climate. *Management Decision*, 54(9), 2277-2293. Retrieved from <https://search.proquest.com/docview/1841760579?>
- [74] Kim, W., Khan, G. F., Wood, J., & Mahmood, M. T. (2016). Employee engagement for sustainable organizations: Keyword analysis using social network analysis and burst detection approach. *Sustainability*, 8(7), 631. Retrieved from <https://pdfs.semanticscholar.org/4e8b/251716b4339b803d4914e67c4655dc5b8574.pdf>
- [75] Kithuka, N. (2015). *The influence of work environment on bank employees' performance: A case of commercial banks in machakos town*. Retrieved from <http://repository.seku.ac.ke/handle/123456789/1058>
- [76] Krause, M. E. (2015). *The role of personal values in shaping leaders' experiences with employee engagement: A qualitative phenomenological study*. Retrieved from <https://search.proquest.com/docview/1724665125?accountid=31259>
- [77] Kula, S., & Guler, A. (2014). Influence of supervisor support on job satisfaction levels: An evaluation of Turkish national police (TNP) officer in the Istanbul police department. *International Journal of Criminal Justice Sciences*, 9(2), 209-224. Retrieved from <https://search.proquest.com/docview/1676621406>
- [78] Kumari, N., & Afroz, N. (2013). The impact of organizational justice on organizational commitment and creative behavior among thermal power industrial employees. *IOSR Journal of Humanities and Social Science*, 16(2), 1-6. Retrieved from www.iosrjournals.org
- [79] Kurniash, N. (2017). The effect of supervision, environmental work, training and learning organization to the managerial effectiveness of the head of primary school private. *International Journal of Human Capital Management*, 1(2), 123-135. Retrieved from <http://journal.unj.ac.id/unj/index.php/ijhcm>
- [80] Kuske, K. (2013). *Creativity and connectivity: Key to productive workplace*. Retrieved from <http://www.businessnewsdaily.com/4410-workspace-productivity.html>
- [81] Kwantes, C. T. (2009). Culture, job satisfaction and organizational commitment in India and the United States. *Journal of Indian Business Research*, 1, 196-212. Retrieved from <https://doi.org/10.1108/17554190911013265>
- [82] Lee, J. (2012). *Antecedents and consequences of employee engagement: Empirical study of hotel employees and managers*. Retrieved from <https://search.proquest.com/docview/10276023658?accountid=31259>
- [83] Leka, S., Griffiths, A., & Cox, T. (2004). *Work organization and stress: Systematic problem approaches for employers, managers and trade union representatives*. Retrieved from https://www.who.int/occupational_health/publications/pwh3rev
- [84] Li, X., & Zheng, Y. (2014). The influential factors of employees' innovative behavior and the management advices. *Journal of Service and Science and Management*, 7, 446-450. Retrieved from <http://www.scirp.org/journal/jssm>

- [85] Li, Y. (2016). *The impact of leadership behavior on employee engagement*. Retrieved from <https://search.proquest.com/docview/1777347117>
- [86] Maier, D., Olaru, M., & Maier, A. (2013). Integrating concepts of creativity and innovation-a key to business excellence. In *European Conference on Innovation and Entrepreneurship, 2*, 739-746. Retrieved from <https://search.proquest.com/docview/1510286373?accountid=3125>
- [87] Mangundjaya, W. (2012). Are organizational commitment and employee engagement important in achieving individual readiness for change? *Humanities*, 9(2), 185-192. Retrieved from www.researchgate.net
- [88] Maqsood, A. (2011). *Work environment, burnout, organizational commitment and role of personal variables as moderators* (Dissertation of Psychology, Quad-i-Azam University, Islamabad). Retrieved from <http://pr.hec.gov.pk/jspui/bitstream/123456789/2008/2/15725.pdf>
- [89] Mathew, S. (2010). *Personality traits and perceived error management as predictors of creativity and innovation among university personnel*. Retrieved from http://digital.library.okstate.edu.etc/mathew-okstate_0664D_11191.pdf
- [90] Mayowa-Adebara, O., & Aina, F. (2016). Work environment and organizational commitment of staff in academic libraries in Lagos State, Nigeria. *Journal of Applied Information Science and Technology*, 9(1), 39-48. Retrieved from https://www.jaistonline.org/vol9_no1_mayowa_aina.pdf
- [91] McKenna, H. P., & Chauncey, S. A. (2016). *Exploring creativity, innovation and value a library event: Extending feedback and assessment to interactive places and spaces*. Retrieved from <https://www.learntechlib.org/primary/p/173140/>
- [92] Meintjes, A., & Hofmeyr, K. (2018). The impact of resilience and perceived organizational support on employee engagement in a competitive sales environment. *SA Journal of Human Resources Management*, 16(1), 1-11. Retrieved from [doi:http://dx.doi.org/10.4102/sajhrm.v16i0.953](http://dx.doi.org/10.4102/sajhrm.v16i0.953)
- [93] Meswantri, M., & Ilyas, A. (2018). Determinant of employee engagement and its implications on employee performance. *International Review of Management and Marketing*, 8(3), 36-44. Retrieved from <https://search.proquest.com/docview/2056362605?accountid=31259>
- [94] Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and reconceptualization. *Human Resources Management Review*, 20, 283-294. Retrieved from <https://doi.org/10.1016/j.hrmr.2009.09.001>
- [95] Moghimi, S. (2016). *Creativity and innovation in hotels and resorts: The roles of leadership*. Retrieved from <http://researchbank.rmit.edu.au/eserv.rmit:161670>
- [96] Moody, V. J. (2012). *Examining leadership styles and employee engagement in the public and private sectors*. Retrieved from <https://search.proquest.com/docview/1285538392?accountid=31259>
- [97] Morrow, P. C. (2011). Managing organizational commitment: Insights from longitudinal research. *Journal of Vocational Behavior*, 79(1), 18-35. Retrieved from <https://search.proquest.com/docview/889278916?accountid=311259>
- [98] Naharuddin, N. M., & Sadegi, M. (2013). *Factors of workplace environment that affect employees' performance: A case study on Miyazu Malaysia*. Retrieved from <http://pakacademicsearch.com/pdf>
- [99] Nazir, O., & Islam, J. U. (2017). Enhancing organizational commitment and employee performance through employee engagement. *South Asian Journal of Business Studies*, 6(1), 98-114. Retrieved from <http://search.proquest.com/docview/1951507093?accountid=31259>
- [100] Nazir, S., Qun, W., Hui, L., & Shafir, A. (2018). Influence of social exchange relationship on affective commitment and innovative behavior: Role of perceived organizational support. *Sustainability*, 10(12), 4418. Retrieved from [doi:10.3390/su10124418](https://doi.org/10.3390/su10124418)
- [101] Nawaz, M. S., Hassan, M., Hassan, S., Shukat, S., & Asadullah, A. M. (2014). Impact of employee training and empowerment on employee creativity through employee engagement: Empirical evidence from manufacturing sector of Pakistan. *Middle-East Journal of Scientific Research*, 19(4), 593-601. Retrieved from DOI: 10.5829/idosi.mejsr.2014.19.4.13618

- [102] Njenga, G., Kamau, C., & Njenga, S. (2015). Factors affecting employees' commitment to an organizational: A case study of Jordan College of Technology (JCT), Thika. *International Journal of Scientific and Research Publications*, 5(10), 1-7. Retrieved from <http://www.ijsrp.org/research-paper-1015/ijsrp-p46117.pdf>
- [103] Norizan, I. (2012). *Organizational commitment and job satisfaction among staff of higher learning education institutions in Kelantan* (Doctoral dissertation, University Utara Malaysia). Retrieved from http://etd.uum.edu.my/3003/1/Norizan_Ismail.pdf
- [104] Ogunlana, E.K., Oshinaike, A. B., & Ibrahim, R. O. (2016). *Causal relationship between organizational commitment and job satisfaction of library and information professional: A canonical correlation analysis*. Retrieved from <http://digitalcommons.unl.edu/liphilprac/1414>
- [105] Oke, A. E., Ogunsami, D. R., & Ogunlana, S. (2012). Establishing a common ground for the use of structural equation modelling for construction related research studies. *Australasian Journal of Construction Economics and Building*, 12(3), 89-94. Retrieved from <https://www.researchgate.net/publication/28102462>
- [106] Onuoha, C. O., Anyanwu, E. U., Ossai-inah, O., V. & Amaechi, N. M. (2015). Challenges of promoting innovation and creativity among library and information science professional in Nigeria: The experience of selected libraries in Imo State, Nigeria. *Journal of Emerging Trends in Computing and Information Sciences*, 6(1), 25-30. Retrieved from http://cisjournalofcomputing/archive/vol6no1_5.pdf
- [107] Orji, M. G., & Enyiamaka, E. N. P. (2017). *Effect of work environment on teacher commitment to duty in selected secondary schools of South Eastern Nigeria*. Retrieved from <http://www.itspoa.com/journal/mana>
- [108] Ortiz, D. A. C., Lau, W. K., & Qin, H. (2013). Quantitative analysis of impacts of employee engagement on continuance and normative commitment. *International Journal of Service and Standards*, 8(4), 315-331. Retrieved from http://mds.marshall.edu/cgi/viewcontent.cgi?article=1011&context=acct_faculty
- [109] Osborne, S., & Hammoud, M. S., (2017). Effective employee engagement in the workplace. *International Journal of Applied Management and Technology*, 16(1), 50-67. Retrieved from <http://search.proquest.com/docview/2103083931?accountid=31259>
- [110] Padhi, V., & Panda, A. K. (2015). A study on employee engagement models for sustainability of organization. *International Journal of Research and Development-A Management Review*, 4(4), 79-85. Retrieved from http://www.irdindia.in/journal_ijrdmr/pdf/vol4_iss4/13.pdf
- [111] Pedraza, C. G., Mesa, F. B., & Gaviria, M. (2016). *Innovation behavior and employee engagement: A case study in a family business*. Retrieved from <https://search.proquest.com/docview/1860070195?accountid=31259>
- [112] Ramalingan, T., Karim, J. A., Piaralal, S., & Singh, B. (2015). Creativity and innovation (organizational factor) Influence on firm performance: An empirical study on Malaysian Telecommunication Mobile Network Operators. *American Journal of Economics*, 5(2). Retrieved from <http://article.sapub.org/10.5923.c.economics.201501.24.html>
- [113] Roe, R. A., & Zijlstra, F. R. (2000). Work pressure: Results of a conceptual and empirical analysis. *Innovative Theories, Tools, and Practices in Work and Organizational Psychology*, 8, 29-45. Retrieved from https://www.researchgate.net/publication/230627007_Work_pressure_Results_of_a_conceptual_and_empirical_analysis
- [114] Rao, V. (2016). Innovation through employee engagement. *Asia Pacific Institute of Advanced Research (APIAR)*, 1-9. Retrieved from <https://www.apiar.org.au>
- [115] Ritter, N. L. (2010). *Understanding a widely misunderstood statistic: Cronbach's alpha*. Retrieved from <https://files.eric.ed.gov/fulltext/ED526237.pdf>
- [116] Rocina, J. (2016). *A primer on the conduct of research*. Manila: Rex Bookstore.
- [117] Rostami, R., Veismoradi, A., & Akbari, P. (2012). The study relationship between organizational climate, organizational commitment and innovation in cement industry of Iran (case study: cement west co. of Kermanshah). *Technical Journal of Engineering and Applied Sciences*, 2, 497-505. Retrieved from <http://ssm.com/abstract=2194660>

- [118] Rusu, R. (2013). Affective organizational commitment, continuance organizational commitment or normative organizational commitment? *Land Forces Academy Review*, 18(2), 192-197. Retrieved from <https://search.proquest.com/docview/1542398385?accountid=31259>
- [119] Samon, G. N., Waiganjo, M., & Koima, J. (2015). Effect of workplace environment on the performance of commercial banks employees in Nakuru Town. *International Journal of Managerial Studies and Research*, 3(12). Retrieved from <https://www.arcjournals.org/pdfs/ijmsr/v3-i12/9.pdf>
- [120] Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of Applied Psychology*, 95(5), 981. Retrieved from <https://search.proquest.com/docview/892610028?accountid=31259>
- [121] Serrat, O. (2017). *Harnessing creativity and innovation in the workplace*. In *Knowledge Solutions*, 903-910. Retrieved from doi.10.1007/978-981-10-0983-9_102
- [122] Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), 749-752. Retrieved from <http://www.allresearchjournal.com/archives/2017/vol3issue7/PartK/3-7-69-542.pdf>
- [123] Sharma, S. K., & Kaur, S. (2014). An introspection of employee engagement: A quantitative content analysis approach. *IUP Journal of Organizational Behaviour*, 13(2), 38-57. Retrieved from <https://search.proquest.com/docview/1540398894?accountid=31259>
- [124] Sheikh, L. (2017). Antecedents and consequences of organizational commitment of teachers: case of university of PUNJAB. *Pakistan Economic and Social Review*, 55(2), 363-386. Retrieved from <https://search.proquest.com/docview/2028117127?accountid=31259>
- [125] Sheykhan, A., & Saghaee, A. (2011). How physical and non-physical working environment affects creativity: An empirical study. *Management Science Letters*, 1(3), 335-340. Retrieved from doi:10.5267/j.msl.2011.03.001
- [126] Shuck, M. B., Rocco, T. S., & Albornoz, C. A. (2011). Exploring employee engagement from the employee perspective: Implications for HRD. *Journal of European Industrial Training*, 35(4), 300-325. doi.org/10.1108/03090591111128306
- [127] Smith, D. G. (2013). *Work environment more important to employees*. Retrieved from <https://www.businessknowhow.com/manage/workenv.htm>
- [128] Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal*, 18(1), 87-98. Retrieved from http://people.uncw.edu/caropresoe/GiftedFoundations/SocialEmotional/Creativity-articles/Sternberg_Nature-of-creativity.pdf
- [129] Susanty, A., Jie, F., & Miradipta, R. (2013). Analysis of the effect of attitude toward works, organizational commitment and job satisfaction on employee's job performance. *European Journal of Business and Social Sciences*, 1(10), 15-24. Retrieved from <http://www.ejbss.com/recent.aspx>
- [130] Szobiova, E. (2015). Creativity in organizational environment. *Acta Technologica Dubnicae*, 5(2), 69-79. Retrieved from <https://www.degruyter.com/downloadpdf/j/atd.2015.5.issue-2/atd-2015-0065/atd-2015-0065.pdf>
- [131] Takaishi, K., Hasegawa, R., & Hasegawa, S. (2016). Strategic flexibility, organizational commitment and innovative behavior among foreign subsidiaries and domestic Japanese firms. *Journal of Business and Economics*, 7(4), 549-561. Retrieved from <http://www.academicstar.us>
- [132] Ukachi, N. B., & Onuoha, U. D. (2015). Professional development and innovative information service delivery in Nigeria libraries. Inhibitors and the way out. *Annals of Library and Information Studies*, 60. Retrieved from [http://nopr.niscair.res.in/bitstream/123456789/26271/1/ALIS%2060\(4\)%20269-275.pdf](http://nopr.niscair.res.in/bitstream/123456789/26271/1/ALIS%2060(4)%20269-275.pdf)
- [133] Umamaheswari, S., & Krishnan, J. (2016). Work force retention: role of work environment, organizational commitment, supervisor support and training and development in Ceramic Sanitary Ware Industries in India. *Journal in Industrial Engineering and Management*, 9(3). Retrieved from <http://dx.doi.org/10.3926/jiem.1885>
- [134] Von Der Heidt, T., & Scott, D. R. (2007). Partial aggregation for complex structural equation modelling (SEM) and small sample sizes: An illustration using a multi-stakeholder model of cooperative inter-organizational relationships (IORs) in product innovation' paper presented to the 21st ANZAM 2007 Conference, Sydney, 4-7 December. Retrieved from <https://epubs.scu.edu.au/cgi/viewcontent>

- [135] Walter, C. (2012). Work environment barriers prohibiting creativity. *Procedia-Social and Behavioral Sciences*, 40, 642-648. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1877042812007100>
- [136] Witemeyer, H. A. (2013). *Employee engagement constructs and instrument validation*. Retrieved from <http://search.proquest.com/docview/1357147904accountid=3125>
- [137] Wolowska, A. (2014). Determinants of organizational commitment. *Human Resources Management and Economics*, 8, 125-146. Retrieved from <http://pdfs.semanticscholar.org/26ec/014d92d56afc006810438521f6514ca2ba8a.pdf>
- [138] Wong, A., & Tong, C. (2014). Evaluation of organizational commitment models and their components in Asian cities. *International Journal of Human Resource Studies*, 4(2), 66-96. Retrieved from <http://dx.doi.org/10.5296/ijhrs.v4i2.5601>
- [139] Yesil, S., & Kaya, A. (2012). The role of organizational culture on innovation capability: an empirical study. *International Journal of Information Technology and Business Management*, 6(1). Retrieved from <http://jitbm.com/>
- [140] Yoon, H. J., Sung, S. Y., & Choi, J. N. (2015). *Mechanism underlying creative performance: Employee perceptions and intrinsic and extrinsic rewards for creativity social behavior*. Retrieved from <https://www.academia.edu/26710211/>
- [141] Yu, R. (2013). *A case study of employee engagement in AkzoNobel Corporate HR* (Master's thesis, University of Twente). Retrieved from https://essay.utwente.nl/63833/1/MSc_Difeng_YU_Rena.pdf