Developing innovative work behavior: The influence of psychological empowerment and intergenerational learning

Yanuar Surya Putra\textsuperscript{a}, Lieli Suharti\textsuperscript{b}*\textsuperscript{*}, Gatot Sasongko\textsuperscript{c}

\textsuperscript{a} Faculty of Economics and Business, Universitas Kristen Satya Wacana, Salatiga, Indonesia; yanuarsp@gmail.com
\textsuperscript{b} Faculty of Economics and Business, Universitas Kristen Satya Wacana, Salatiga, Indonesia; lieli.suharti@uksw.edu*\textsuperscript{*}
\textsuperscript{c} Faculty of Economics and Business, Universitas Kristen Satya Wacana, Salatiga, Indonesia; gatot.sasongko@uksw.edu

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\textbf{ABSTRACT}

In the era industrial revolution 4.0 and the development of online-based learning systems, lecturers are required to be more creative and innovative. This study aims to examine the effect of psychological empowerment and intergenerational learning on the innovative work behavior of lecturers with a climate of age diversity as a mediating variable. The type of this research is explanatory research. The population of this research is lecturers from private universities in Central Java. By using accidental sampling, obtained 152 lecturers...
who became respondents in this study. The data analysis technique used the Partial Least Square (PLS) test using the SmartPLS. The results of the study revealed that psychological empowerment and intergenerational learning had a significant and positive effect on lecturers’ innovative work behavior. However, the climate of age diversity was found not to be a fully mediating variable on innovative work behavior. The results of this study provide managerial implications that it is important in the work environment of higher institution to apply psychological empowerment practices towards lecturers to improve lecturers’ innovative work behavior. In addition, the efforts to encourage learning between lecturers of different generations are also important.

INTRODUCTION

The process of digitization has changed the way how employees perform their activities, personally and also in their job-related activities. Within organization one of the dynamic changes emerged in the way of how to manage their employees, which is an important element in the organization. Based on those dynamic changes and disruption, there are at least three efforts for organization to respond towards digital changes; (1) Organizations need to improve their employee’s skills and work behavior, (2) Reduced hierarchy, focusing more on collaboration and (3) One of the resource services is by promoting employee innovation and innovative behavior (Mello, 2015). Furthermore, organizations need to respond to this disruptive era by improving employee work habits and directing them to innovative behavior (Mello, 2015). In line with those, Shamim et al. (2016) also stated that in this disruptive environment, the role of human resources is very important, especially human resources who are motivated to contribute to learning and to the innovation process in organizations. This was previously revealed by Agarwal (2014) that one of the options for organizations to become more innovative is to encourage their employees innovative behavior, so that innovative work behavior does not only benefit employees, but also will create positive effect on the innovativeness of organizations. Thus, organizations need to create an organizational climate that accommodates innovative work behavior.

According to Boehm et al. (2013), innovative work behavior is all work activities both physically and cognitively carried out in a work environment that aims to generate and realize new ideas that can be applied in working environment. Innovative work behavior has broader implications, because innovative work behavior is not only limited on work activities, but a behavior to implement new ideas that can benefit both individuals and organizations (Fernandez & Moldogaziev, 2013).

Various factors have been examined to see how those factors influence innovative behavior in the working environment. Kheng et al. (2013) stated that individual factors have an effect on phases in the innovation process. Individual factors are such as age, gender, educational background, experience, personality, cognitive
abilities, and risk-taking behavior. From the human resource management point of view, by understanding and managing generational diversity will help organizations maximize their performance. The ability to manage and compare the differences between generations regarding values in work, behavior, and career expectations will provide complete information for management to make HRM policies based on future generations (Bergner et al., 2016; Crumpacker & Crumpacker, 2007; Sakdiyakorn & Wattanacharoensil, 2018). By managing generational diversity, differences in work values and career priorities between generations can be identified, so that generations of conflicts that can interfere with individual, team, and organizational performance can be minimized, and workers between generations can work side by side (Bourne, 2015; Lancaster & Stillman, 2009; Pritchard & Whiting, 2014). As most of the Baby Boomers generation leave the workforce, organizations must prepare for the regeneration process from the old generation to the new generation (Bennett et al., 2012; Ng & Parry, 2016).

Innovative work behavior is always faced with dynamic and diverse environments and employees (Sherehiy & Karwowski, 2014). Related to this, from the generational diversity approach. These generational differences will result in different work behaviors, because each generation has different values and behaviors at work (Gerpott et al., 2016). These differences in characteristics, known as age diversity climate, are defined as shared perceptions of organizational members regarding fair and non-discriminatory treatment for employees of all age groups covering all relevant organizational practices (Innocenti et al., 2013; Profili et al., 2017). From four generations that exist in today's working environment, asides from generation Y, who is currently become the main generation in nowadays working environment. Generation Z is a new generation that emerged and entered working environment. According to Lanier (2017), generation Z is a generation consisting of individuals born in 1995 to 2010, most of them have just entered working environment. Generation Z is a global and different generation, who grew up in a wider and more diverse background than any other generations. Bolser & Gosciej (2015) added that generation Z is the first pure global generation that determines major changes in the work environment. The latest research from Bloomberg in 2018 predicts that generation Z in 2019 will number 2.47 billion people out of 7.7 billion people, or 32% of the world's population.

Besides being achieved through the creation and improvement of a climate of age diversity, innovative work behavior also requires encouragement from the employees themselves, because innovative work behavior is a form of behavior that is created from within the employees themselves. According to Spreitzer et al. (2019), an encouragement or psychological attitude that appears from individual to feel and control their work is known as psychological empowerment. Jose & Mampilly (2014) stated that psychological empowerment is a condition when employees feel that they are able to understand the meaning of work, believe in their ability to complete work,
have full control in determining work methods, and can have an influence in terms of work operation strategies. Meanwhile, Jha (2010) also adds that psychological empowerment exists when employees have control over their work life. What is meant by work life is a conducive and controlled working environment, so that employees will be motivated to maximize their abilities. Thus, it can be said that psychological empowerment is a broader concept than intrinsic motivation, in which psychological empowerment is manifested in four individual cognitions in their role in a company or organization, consist of: meaning, competence, self-determination, and impact.

Innovative work behavior also required intergenerational learning from individuals in the organization, because innovative work behavior is always faced with an unpredictable, dynamic and constantly changing work environment (Sherehiy & Karwowski, 2014). The understanding of intergenerational learning is that in addition to the interactive process that occurs between different generations and will also produce new skills, values, knowledge development, and benefits the organization and employees (Ropes, 2014). Generation Y and Z are population groups that currently have the greatest influence on changes in the social environment and the work behavior of each generation will be influenced by the characteristics of that generation (Cennamo & Gardner, 2008).

Higher education sector is one of the sectors that are required to have human resources who have innovative work behavior, especially for the lecturer. Based on data from LLDIKTI VI (Lembaga Layanan Pendidikan Tinggi), until February 2021, the number of lecturers based on functional positions at private higher institution in Central Java consisted of 97 professors, 973 associate professors, 2,955 lectors, and 4,207 assistant professors. Those data shows that the lecturer's quality and work behaviour is still low. Thus, is the urgency of this research, because the existence of generational differences will arise challenges to build innovative work behavior in organizations. Other than that, apart from the fact that lecturers' innovative work behavior has not been much in the research spotlight, it is also because the conditions of private universities in Central Java are different and uneven in terms of quality, even in 2021 there are around 20 private universities that are threatened with closure because they are deemed unfit to hold learning activities, that is why the efforts to produce innovative work behavior models that can be applied to private universities become very important. The result from this research is expected to contribute to improving the quality of private universities in Central Java, particularly the innovative behavior from the lecturers. Based on that explanation the researches problem is how to build innovative work behavior through psychological empowerment and intergenerational learning with a generational diversity approach. Specifically, the purpose of this study was to examine: (1) whether psychological empowerment and intergenerational learning affect the innovative behavior of lecturers from private universities in Central Java; (2) does climate of diversity act as a mediator variable in the influence between psychological empowerment and intergenerational learning on
innovative behavior of lecturers from private universities in Central Java.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Innovative Work Behaviour

Innovative behavior is defined as an action taken to create and adopt new ideas, thoughts, or ways to be applied in the implementation and completion of work (Gaynor, 2012). Furthermore, Birdi et al. (2016) underscore that innovative behavior refers to the ability to create an original idea, use the work as a potential idea and apply new ideas to work practice. How to conceptualize and measure innovative work behavior has been the focus of a number of studies. For example, Bal & Dorenbosch (2015) divide innovative work behavior into two main stages: discovery and then implementation of ideas. While Scott & Bruce (1994) divide it into three stages: gathering new and useful ideas, finding support for the idea and implementing the idea or ideas that get support. According with preceding studies by de Jong & den Hartog (2010) and the theoretical conceptualization mentioned above, an operationalization of IWB can be described as follows: exploration ideas, enerating new ideas, recognizing and getting support for these new ideas, implementing these new ideas.

Age diversity climate

According to Boehm et al. (2013), age diversity climate is one of the concept of general diversity climate, which was introduced by scholars such as Barak et al. (1998) and Kossek & Zonia (1993). It was defined as employees shared perceptions of the policies, practices, and procedures that implicitly and explicitly, communicate the extent to which fostering and maintaining diversity and eliminating discrimination is a priority in the organization. This definition has two characteristics: First, it shows employees’ shared perceptions about the way their organization actively recruits, promotes, and retains employees of all age groups, in other words, whether HR practices seem fair and non-discriminatory. Second, it captures the shared conviction that all individuals, regardless of their age, should have access to these age-neutral treatments and opportunities. Age diversity climate are operationalized using 4 indicators; Fair treatment, recognition of diverse perspectives, organizational support for age diversity, integration of different age groups (Profili et al., 2017).

Psychological Empowerment

Psychological empowerment is a concept originating from industrial-organizational psychology. Empowerment is defined as the opportunity an individual has for autonomy, choice, responsibility, and participation in decision making in organizations (Meng & Sun, 2019). Psychological empowerment refers to an intrinsic task motivation reflecting a sense of self-control in relation to one’s work and an active engagement with one’s work role. Thus, psychological empowerment is a condition when employees feel able to understand the meaning of work, believe in their abilities
in completing work, have full control in determining work methods and can have an influence in terms of work operation strategy. Many studies on enterprise organizations have found that psychological empowerment, is an impulse or a psychological attitude that arises from a person to feel and to control his works. Four items adopted from Jose & Mampilly (2014); meaning, competence, impact, and self determination used for operational psychological empowerment.

Intergenerational Learning

Each generational group currently working side by side has unique experiences and knowledge that can be a valuable source of learning for the organization. Therefore, organizations must accommodate the intergenerational learning process or what is known as intergenerational learning. According to Ropes (2014), intergenerational learning is defined as an interactive process that involves individuals from different generations to share new knowledge, abilities, and new values. In the intergenerational learning process, individuals in organizations actively build new knowledge by exchanging information or learning about new things with other individuals from different generation groups. The intergenerational learning variable measured with 8 indicators, consist of: intention to share knowledge, stereotypes about different generation, knowledge self efficacy, voluntariness, institutional support, task complexity, goal clarity, opportunity in knowledge application, leadership support, peer support (Gerpott et al., 2016).

The Relationship Between Psychological Empowerment and Innovative Work Behavior

According to Spreitzer et al. (2019) an impulse or a psychological attitude that arises from a person to feel and to control his work is called psychological empowerment. When employees are empowered in the organization, they show creative behavior because they find value in their job roles (Park et al., 2013). Jose & Mampilly (2014) stated that psychological empowerment is a condition when employees feel that they are able to understand the meaning of work, believe in their ability to complete work, have full control in determining work methods, and can have an influence in terms of work operation strategies. Meanwhile, Muduli (2016) also adds that psychological empowerment exists when employees have control over their work life. What is meant by work life is a conducive and controlled working environment, so that employees will be motivated to maximize their abilities. Thus, it can be said that psychological empowerment is a broader concept than intrinsic motivation, in which psychological empowerment is manifested in four individual cognitions in their role in a company or organization, consist of; meaning, competence, self-determination, and impact. Pieterse et al. (2013) explained that the perception of employee empowerment is positively related to innovation. Liu et al. (2019); Ramamoorthy et al. (2005) added that psychological empowerment mediates the relationship between individual values and individual innovation and positive change.
Employees who are empowered and find meaning in their work are motivated to have an influence on the organization (Jose & Mampilly, 2014; Park et al., 2013). Empowered employees can create more ideas because organizations expect them to give back without worrying about bureaucratic rules and regulations. According to Spreitzer et al. (2019) a higher perception of psychological empowerment will lead to increased inspiration and innovation in organizations. Based on this description, we suggest hypothesis as follows:

**H1**: Psychological Empowerment has a positive and significant influence on innovative work behavior.

### The Relationship Between Intergenerational Learning and Innovative Work Behavior

Differences in the characteristics of each generation group will lead to a climate of diversity based on differences in the age of employees. The concept of climate diversity by age, evolved from the definition of a climate of diversity, which is an agreed-upon perception by employees of policies, practices, and procedures that are communicated implicitly and explicitly regarding the extent to which companies prioritize diversity development and management and eliminate discrimination within organizations (Boehm et al., 2013). Luthans & Youssef-Morgan's (2017) research shows that employees in different generations of groups will have different reactions to human resource practices, and this will affect the extent to which employees can stay in the organization. An intergenerational learning process that will not only improve organizational performance but can also benefit individuals. Intergenerational learning can help develop employee skills and knowledge, both explicit knowledge that can be developed by interaction between individuals, and implicit knowledge that can be developed by working together (Harvey, 2012). Thus, can be concluded that the intergenerational learning process has a positive effect on individual and organizational work outcomes as a whole (Ropes & Ypsilanti, 2016). This proactive behavior will give employees the courage to come up with new ideas. Hammond et al. (2011); Vila et al. (2014) also stated that factors which facilitate innovation at individual level are employee’s behavior themselves. From this description, the following hypothesis can be formulated:

**H2**: Intergenerational learning has a positive and significant influence on innovative work behaviour.

### The Mediation Effect of Age Diversity Climate

Age diversity climate is a strong mediator in the relationship between HR practices and company innovation. One of the most important indicators of a company's long-term success is whether its employees can work together despite
differences in demographic backgrounds (Boehm et al., 2013). According to (Ng & Parry, 2016), generation is a group of individuals identified from the same year of birth, age, and events that affect their growth phase. It is difficult for the grouping of generational differences to be specifically defined, because there are regional differences and events experienced by a group of individuals, even though they are at the same age, so that in the literature on generational differences common criteria are used and can be widely accepted in various regions. In this case the criteria used are the year of birth and events that occur globally. At present, the four generations that are in the work environment are: baby boom generation, generation X, generation Y and generation Z. Age diversity climate concept develops from the definition of diversity climate, which is the common perception that all employees agree about policies, practices and procedures that are communicated by organizations about how far organization will prioritize to eliminate discrimination and manage diversity in organizations (Boehm et al., 2013). Research related to employees' perceptions (either individually or in groups) regarding the management of age diversity in the workplace has received little attention. This definition has two meanings: first, it reflects employees' perceptions of the way their organization is actively recruiting, promoting, and retaining employees of all age groups, or in other words, whether HR practices are fair and non-discriminatory. Second, the definition leads to the shared belief that all individuals in an organization, regardless of their age, should have equal opportunities in employment and to gain benefits from the company. From this explanation, a hypothesis can be formulated as follows:

**H3:** Psychological empowerment has a positive and significant influence on age diversity climate.

**H4:** Intergenerational learning has a positive and significant influence on age diversity climate.

**H5:** Age diversity climate mediates the relationship between psychological empowerment on innovative work behavior.

**H6:** Age diversity climate mediates the relationship between intergenerational learning on innovative work behavior.

Based on hypotheses formulation above, the conceptual model from this research can be showed through the figure below:
RESEARCH METHODS

Higher education sector is one of the sectors that are required to have human resources who have innovative work behavior, especially for the lecturer. Based on data from LLDIKTI VI (Lembaga Layanan Pendidikan Tinggi), until February, 2021, the number of lecturers based on functional positions at private higher institution in Central Java consisted of 97 professors, 973 associate professors, 2,955 lectors, and 4,207 assistant professors. The population of this research were 13,211 lecturers from private universities in Central Java, and the scope of research is limited to only three private universities with A accreditation. Thus, the number of samples using Slovin method becomes 152 lecturers. Self–administered questionnaire survey was used to collect data from lecturers, with purposive sampling method that is used to determine respondents with the following characteristics: participants are lecturers who belong to the generation Y (born in 1981 - 1994) and generation Z (born > 1994, with an average age between 18-25 years. One hundred and fifty-two lecturers from private universities participated in this research. From this, 81 (53.6%) of the lecturers were men and 71 (46.7%) of the lecturers were women. 98 (64.5%) of the lecturers come from generation Y and 54 (35.5%) of the lecturers come from generation Z. The data collecting process was using online questionnaire, due to the physical distancing of covid – 19 pandemics.

Measures

The process of conducting the survey is divided into two parts, the first includes participants' personal information including: age, education level, gender, and related categories in the workplace environment. The second, researchers made a questionnaire using a Likert scale ranging from 1 to 7, (1 = strongly disagree, to 7 = strongly agree).

Innovative work behaviour is defined as an action taken to create and adopt new ideas, thoughts, or ways to be applied in the implementation and completion of work (Gaynor, 2012). Lecturers’ innovative work behavior was measured using five
Developing innovative work behavior: The influence …(Putra, Suharti, Sasongko)

indicators according to de Jong & den Hartog (2010), consist of: exploration ideas, generating new ideas, recognizing and getting support for these new ideas, implementing these new ideas.

According to Spreitzer et al. (2019), an impulse or a psychological attitude that arises from a person to feel and to control his work is called psychological empowerment. Four items adopted from Jose & Mampilly (2014); meaning, competence, impact, and self determination used for operational psychological empowerment.

Furthermore, Ropes (2014) explained that intergenerational learning is defined as an interactive process that involves individuals from different generations to share new knowledge, abilities, and new values. The intergenerational learning variable measured with 8 indicators, consist of: intention to share knowledge, stereotypes about different generation, knowledge self efficacy, voluntariness, institutional support, task complexity, goal clarity, opportunity in knowledge application, leadership support, peer support (Gerpott et al., 2016). Finally, age diversity climate was defined as employees shared perceptions of the policies, practices, and procedures that implicitly and explicitly communication and maintaining diversity and eliminating discrimination is a priority in the organization.age diversity climate are operationalized using 4 indicators; Fair treatment, recognition of diverse perspectives, organizational support for age diversity, integration of different age groups (Profili et al., 2017).

Data analysis in this study used the Smart PLS program to determine the reliability and validity of a construct. Table 1 results of the analysis of the measurement model (Henseler et al., 2016; Vinzi et al., 2010). Cronbach's alpha measurement is greater than 0.7 (Henseler et al., 2016), while the value of composite reliability and average variance extract (AVE) is greater than 0.6 (Dibbern et al., 2016).

| Construct reliability and validity test |
|----------------------------------------|
|                                       |
| Cronbach's Alpha | Rho_A | Composite Reliability | AVE |
| Psychological | 0.901 | 0.911 | 0.925 | 0.643 |
| Empowerment | 0.878 | 0.913 | 0.911 | 0.554 |
| Intergenerational learning | 0.783 | 0.791 | 0.783 | 0.521 |
| Age Diversity Climate | 0.867 | 0.894 | 0.905 | 0.560 |
| Innovative Work Behavior | 0.867 | 0.894 | 0.905 | 0.560 |

Source: Data processed, 2021

RESULTS AND DISCUSSION

Hypotheses Testing

Direct effects testing
Both of direct and indirect effects result, can be analyze using coefficient value and p value, that showed in the table below:

| Relationship | Variables | Coefficient(b) | p – value | Results          |
|--------------|-----------|----------------|-----------|------------------|
| Direct       | PE → IWB  | 0.384          | 0.005     | H1: Supported    |
|              | IL → IWB  | 0.167          | 0.021     | H2: Supported    |
|              | PE → ADC  | 0.669          | 0.000     | H3: Supported    |
|              | IL → ADC  | 0.046          | 0.524     | H4: Not supported|
| Indirect     | PE → ADC → IWB | 0.234 | 0.003 | H5: Supported |
|              | IL → ADC → IWB | 0.016 | 0.663 | H6: Not Supported |

Source: Data processed, 2021

The results showed that psychological empowerment and intergenerational learning together explain 55.7 percent of the variance in lecturers innovative work behavior (R² = 0.557, p = 0.000). The two independent variables explain 46.6 percent of the variant in age diversity climate (R² = 0.466, p = 0.000). Separately, psychological empowerment (b = 0.384, p=0.005) and learning agility (b = 0.167, p=0.021) have a positive and significant influence on lecturers’ innovative work behavior. The results also demonstrate that psychological empowerment (b = 0.669, p=0.000) has a positive and significant influence on age diversity climate, that supports H3. Intergenerational learning (b = 0.046, p=0.524) has a positive but not significant influence on age diversity climate, that does not support H4. In conclusion, the proposed directed hypotheses (i.e. H1, H2 and H3) receive empirical support, except for H4.

**Indirect effects Testing**

The results show that age diversity climate significantly mediates the relationship between psychological empowerment on lecturers innovative work behavior (b = 0.234, p = 0.003), supporting H5. The results also indicate that age diversity climate does not significantly mediate the relationship between learning agility and employees innovative work behavior (b = 0.016, p = 0.663), which does not support H6.

**Discussion**

The stage of the hypotheses test was using a two – stage process model developed by Hayes (2015). The first stage tested the direct influence of psychological empowerment and intergenerational learning towards lecturers’ innovative work behavior, and also the influence of the independent variables on age diversity climate. The result showed that psychological empowerment and intergenerational learning have a positive and significant influence on innovative work behaviour (H1 and H2 supported). Thus, can be explained that psychological empowerment, plays a vital role in how organizations support innovative work behavior, which means that organizations provide a wide space for lecturers to develop themselves by creating and
exploring new ideas about how to do their jobs, and also provide enough opportunities to implement their ideas. These results are similar to previous studies, which explained that the perception of employees empowerment is positively related to innovation, and that psychological empowerment does facilitate individual values and individual innovation and positive change (Pieterse et al., 2013; Ramamoorthy et al., 2005).

Furthermore, related with how intergenerational learning support innovative work behavior, Bos-Nehles et al. (2017) explained that innovative work behavior as the intentional creation, introduction and application of new ideas within a work role, group or organization, there are knowledge co – creation process within innovative work behavior process. While Peschl & Fundneider (2014) explained that one of the intergenerational learning processes consist of knowledge co – creation as a core component of innovation in organization. Therefore, it can be concluded that explicit and implicit knowledge transfer between individuals from different generations have a strong impact towards innovative work behavior. Related with H3, organizations also allow individual empowerment by facilitating age diversity and creating a fair treatment to diverse lecturers in work environment, in these studies the diversity is aimed to generational diversity, which represent by lecturers from generation Y and Z in Central Java. Otherwise, this study shows that intergenerational learning does not have a significant influence on age diversity climate, this result does not support H4. It can be said that learning is not completely related with generational diversity, because individual’s agility to learn does not depend on from which generation they come.

The second stage, the indirect relationship between psychological empowerment and intergenerational learning towards lecturers’ innovative work behavior with age diversity climate as mediating variable. The result show that age diversity climate only mediating the relationship between psychological empowerment on innovative behaviour (H5 supported). This result is expected, because when lecturers have intergenerational learning, they will have a positive attitude towards learning and self- development; and have the ability to generate innovative ideas and always ready to accept new responsibilities, it also, can help develop lecturer’s skills and knowledge, both explicit knowledge that can be developed by interaction between individuals or group from different generation, and in the end this process will increase innovative work behaviour within organizations, this result in line with Boehm & Kunze’s (2015) research. Furthermore, this result shows that age diversity climate is not mediating the relationship between intergenerational learning and innovative work behaviour (H6 not supported). The impact of learning agility toward innovative work behavior tends to be a direct influence, because individuals who have intergenerational learning tend to look for new challenges by themselves, and evaluate their experiences and draw conclusions from it and create an innovative behaviour (De Meuse et al., 2012).

In addition, individuals who have high agility tend to be able to take lessons
from experiences, then apply them in new conditions or situations, whatever the condition is. Intergenerational learning includes two factors; employee’s ability to respond to changes and employee’s ability to take advantage from those changes as the opportunities to develop innovative behaviour (Alavi & Wahab, 2013; Muduli, 2016; Sherehiy & Karwowski, 2014). The implication for this result can be concluded that lecturers from diverse generation, have high intergenerational learning that can elevate their innovative work behavior, without being entirely rely on organizational support for generational diversity.

CONCLUSION

Our review highlights the psychological empowerment and intergenerational learning relationship and age diversity climate as mediating variable that stimulates lecturers innovative work behavior. We propose that both psychological empowerment and intergenerational learning are directly related to innovative work behavior, and age diversity climate ia a partial mediator between the relation of psychological empowerment and intergenerational learning to innovative works behavior. Theoretically, we contribute to innovative work behaviour of higher education institution by examining both psychological empowerment and intergenerational learning and relating them to innovative work behaviour from the generational diversity climate perspective. Practically, higher education institutions could develop specific facets of psychological empowerment to stimulate innovative behavior. Further, universities could roll out various programs focusing on psychological empowerment among various lecturers from different generations. Additionally, organizations need to develop fair and equitable intergenerational learning which stimulate innovative work behavior. Future research could focus other specific variables that influence innovative work behavior at all levels. Notably, since individual and learning factors impact innovative behavior, future research could examine how individual differences of leaders and their followers impact the innovative work behaviour relationship (Muchiri et al., 2020).

REFERENCES

Agarwal, U. A. (2014). Linking justice, trust and innovative work behaviour to work engagement. Personnel Review, 43(1), 41–73. https://doi.org/10.1108/PR-02-2012-0019

Alavi, S., & Wahab, D. A. (2013). A review on workforce agility. Research Journal of Applied Sciences, Engineering and Technology, 5(16), 4195–4199. https://doi.org/10.19026/rjaset.5.4647

Bal, P. M., & Dorenbosch, L. (2015). Age-related differences in the relations between individualised HRM and organisational performance: A large-scale employer
survey. *Human Resource Management Journal*, 25(1), 41–61. https://doi.org/10.1111/1748-8583.12058

Barak, M. E. M., Cherin, D. A., & Berkman, S. (1998). Organizational and personal dimensions in diversity climate: Ethnic and gender differences in employee perceptions. *The Journal of Applied Behavioral Science*, 34(1), 82–104. https://doi.org/10.1177/0021886398341006

Bennett, J., Pitt, M., & Price, S. (2012). Understanding the impact of generational issues in the workplace. *Facilities*, 30(7/8), 278–288. https://doi.org/10.1108/02632771211220086

Bergner, S., Davda, A., Culpin, V., & Rybnicek, R. (2016). Who overrates, who underrates? Personality and its link to self–other agreement of leadership effectiveness. *Journal of Leadership & Organizational Studies*, 23(3), 335 – 354.

Birdi, K., Leach, D., & Magadley, W. (2016). The relationship of individual capabilities and environmental support with different facets of designers’ innovative behavior. *Journal of Product Innovation Management*, 33(1), 19–35. https://doi.org/10.1111/jpim.12250

Boehm, S. A., & Kunze, F. (2015). Age diversity and age climate in the workplace. In *Aging Workers and the Employee-Employer Relationship* (pp. 33–55). Springer International Publishing. https://doi.org/10.1007/978-3-319-08007-9_3

Boehm, S. A., Kunze, F., & Bruch, H. (2013). Spotlight on age-diversity climate: The impact of age-inclusive HR practices on firm-level outcomes. *Personnel Psychology*, 67, 667–704. https://doi.org/10.1111/peps.12047

Bolser, K., & Gosciej, R. (2015). Millennials: Multi-generational leaders staying connected. *Journal of Practical Consulting*, 5(2), 1–9.

Bos-Nehles, A., Renkema, M., & Janssen, M. (2017). HRM and innovative work behaviour: A systematic literature review. *Personnel Review*, 46(7), 1228–1253. https://doi.org/10.1108/PR-09-2016-0257

Bourne, B. (2015). Phenomenological study of generational response to organizational change. *Journal of Managerial Issues*, 27(1/4), 141–159.

Cennamo, L., & Gardner, D. (2008). Generational differences in work values, outcomes and person-organisation values fit. *Journal of Managerial Psychology*, 23(8), 891–906. https://doi.org/10.1108/02683940810904385

Crumpacker, M., & Crumpacker, J. M. (2007). Succession planning and generational stereotypes: Should HR consider age-based values and attitudes a relevant factor or a passing fad? *Public Personnel Management*, 36(4), 349–369. https://doi.org/10.1177/009102600703600405
de Jong, J., & den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management, 19*(1), 23–36. https://doi.org/10.1111/j.1467-8691.2010.00547.x

De Meuse, K. P., Dai, G., Swisher, V. V., Eichinger, R. W., & Lombardo, M. M. (2012). Leadership development: Exploring, clarifying, and expanding our understanding of learning agility. *Industrial and Organizational Psychology, 5*(3), 280–286. https://doi.org/10.1111/j.1754-9434.2012.01445.x

Dibbern, J., Chin, W. W., & Kude, T. (2016). The sourcing of software services: Knowledge specificity and the role of trust. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems, 47*(2), 36–57. https://doi.org/10.1145/2963175.2963178

Fernandez, S., & Moldogaziev, T. (2013). Employee empowerment, employee attitudes, and performance: Testing a causal model. *Public Administration Review, 73*(3), 490–506. https://doi.org/10.1111/puar.12049

Gaynor, G. H. (2012). From idea to innovation. *IEEE Engineering Management Review, 40*(4), 5–6. https://doi.org/10.1109/EMR.2012.6379392

Gerpott, F. H., Lehmann-Willenbrock, N., & Voelpel, S. C. (2016). Intergenerational learning in organizations: A framework and discussion of opportunities. In *The Aging Workforce Handbook* (pp. 241–267). Bingley: Emerald Publishing Limited. https://doi.org/10.1108/978-1-78635-448-820161010

Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., & Zhao, X. (2011). Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts, 5*(1), 90–105. https://doi.org/10.1037/a0018556

Harvey, J. (2012). Managing organizational memory with intergenerational knowledge transfer. *Journal of Knowledge Management, 16*(3), 400–417. https://doi.org/10.1108/13673271211238733

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1–22. https://doi.org/10.1080/00273171.2014.962683

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems, 116*(1), 2–20. https://doi.org/10.1108/IMDS-09-2015-0382

Innocenti, L., Profili, S., & Sammarra, A. (2013). Age as moderator in the relationship between HR development practices and employees’ positive attitudes. *Personnel Review, 42*(6), 724–744. https://doi.org/10.1108/PR-Jan-2012-0009

Jha, S. (2010). Need for growth, achievement, power and affiliation. *Global Business Review, 11*(3), 379–393. https://doi.org/10.1177/097215091001100305
Jose, G., & Mampilly, S. R. (2014). Psychological empowerment as a predictor of employee engagement: An empirical attestation. *Global Business Review, 15*(1), 93–104. https://doi.org/10.1177/0972150913515589

Kheng, Y. K., Mahmood, R., & Beris, S. J. H. (2013). A conceptual review of innovative work behavior in knowledge intensive business services among knowledge workers in Malaysia. *International Journal of Business, Humanities and Technology, 3*(2), 91–99.

Kossek, E. E., & Zonia, S. C. (1993). Assessing diversity climate: A field study of reactions to employer efforts to promote diversity. *Journal of Organizational Behavior, 14*(1), 61–81. https://doi.org/10.1002/job.4030140107

Lancaster, L. C., & Stillman, D. (2009). *When generations collide: Who they are, why they clash, how to solve the generational puzzle at work.* New York: HarperCollins Publishers Inc.

Lanier, K. (2017). 5 things HR professionals need to know about Generation Z. *Strategic HR Review, 16*(6), 288–290. https://doi.org/10.1108/SHR-08-2017-0051

Liu, F., Chow, I. H.-S., Gong, Y., & Wang, H. (2019). Mediating links between HRM bundle and individual innovative behavior. *Journal of Management & Organization, 25*(1), 157–172. https://doi.org/10.1017/jmo.2016.47

Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational Psychology and Organizational Behavior, 4*(1), 339–366. https://doi.org/10.1146/annurev-orgpsych-032516-113324

Mello, J. A. (2015). *Strategic human resources management* (4th ed.). Stamford: Cengage Learning.

Meng, Q., & Sun, F. (2019). The impact of psychological empowerment on work engagement among university faculty members in China. *Psychology Research and Behavior Management, 12*, 983–990. https://doi.org/10.2147/PRBM.S215912

Muchiri, M. K., McMurray, A. J., Nkhoma, M., & Pham, H. C. (2020). Mapping antecedents of innovative work behavior: A conceptual review. *The Journal of Developing Areas, 54*(4), 33–40. https://doi.org/10.1353/jda.2020.0047

Muduli, A. (2016). Exploring the facilitators and mediators of workforce agility: An empirical study. *Management Research Review, 39*(12), 1567–1586. https://doi.org/10.1108/MRR-10-2015-0236

Ng, E. S., & Parry, E. (2016). Multigenerational research in human resource management. In *Research in Personnel and Human Resources Management* (pp. 1–41). Bingley: Emerald Publishing Limited.
Park, Y. K., Song, J. H., Yoon, S. W., & Kim, J. (2013). Learning organization and innovative behavior: The mediating effect of work engagement. *European Journal of Training and Development, 38*(1/2), 75–94. https://doi.org/10.1108/EJTD-04-2013-0040

Peschl, M. F., & Fundneider, T. (2014). Designing and enabling spaces for collaborative knowledge creation and innovation: From managing to enabling innovation as socio-epistemological technology. *Computers in Human Behavior, 37*, 346–359. https://doi.org/10.1016/j.chb.2012.05.027

Pieterse, A. N., van Knippenberg, D., & van Dierendonck, D. (2013). Cultural diversity and team performance: The role of team member goal orientation. *Academy of Management Journal, 56*(3), 782–804. https://doi.org/10.5465/amj.2010.0992

Pritchard, K., & Whiting, R. (2014). Baby boomers and the lost generation: On the discursive construction of generations at work. *Organization Studies, 35*(11), 1605–1626. https://doi.org/10.1177/0170840614550732

Profili, S., Innocenti, L., & Sammarra, A. (2017). A conceptual framework of age diversity climate. In *Advanced Series in Management* (Vol. 17, pp. 95–116). Bingley: Emerald Publishing Limited. https://doi.org/10.1108/S1877-63612017000017006

Ramamoorthy, N., Flood, P. C., Slattery, T., & Sardessai, R. (2005). Determinants of innovative work behaviour: Development and test of an integrated model. *Creativity and Innovation Management, 14*(2), 142–150. https://doi.org/10.1111/j.1467-8691.2005.00334.x

Ropes, D. (2014). Intergenerational learning in organizations. An effective way to stimulate older employee learning and development. *Development and Learning in Organizations: An International Journal, 28*(2), 7–9. https://doi.org/10.1108/DLO-10-2013-0078

Ropes, D., & Ypsilanti, A. (2016). A conceptual framework for managing intergenerational relations in the workplace. In *The Aging Workforce Handbook* (pp. 299–322). Bingley: Emerald Publishing Limited. https://doi.org/10.1108/978-1-78635-448-820161012

Sakdiyakorn, M., & Wattanacharoensil, W. (2018). Generational diversity in the workplace: A systematic review in the hospitality context. *Cornell Hospitality Quarterly, 59*(2), 135–159. https://doi.org/10.1177/1938965517730312

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal, 37*(3), 580–607. https://doi.org/10.5465/256701
Shamim, S., Cang, S., Yu, H., & Li, Y. (2016). Management approaches for industry 4.0: A human resource management perspective. *2016 IEEE Congress on Evolutionary Computation (CEC)*, 5309–5316. https://doi.org/10.1109/CEC.2016.7748365

Sherehiy, B., & Karwowski, W. (2014). The relationship between work organization and workforce agility in small manufacturing enterprises. *International Journal of Industrial Ergonomics*, 44(3), 466–473. https://doi.org/10.1016/j.ergon.2014.01.002

Spreitzer, G., Bacevice, P., & Garrett, L. (2019). Workplace design, the physical environment, and human thriving at work. In *Organizational Behaviour and the Physical Environment* (pp. 235–250). London: Routledge. https://doi.org/10.4324/9781315167237-13

Vila, L. E., Pérez, P. J., & Coll-Serrano, V. (2014). Innovation at the workplace: Do professional competencies matter? *Journal of Business Research*, 67(5), 752–757. https://doi.org/10.1016/j.jbusres.2013.11.039

Vinzi, V. E., Trinchera, L., & Amato, S. (2010). PLS path modeling: From foundations to recent developments and open issues for model assessment and improvement. In *Handbook of Partial Least Squares* (pp. 47–82). Berlin: Springer. https://doi.org/10.1007/978-3-540-32827-8_3