

Mediating effect of creative self-efficacy on the influence of knowledge sharing towards innovative work behavior among millennial knowledge workers

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Abstract

The influx of new workers is starting to be dominated by the millennial generation. This shift provides a demographic advantage for Indonesia as millennial generations are generally aware of the technology. However, to maximize this advantage, the millennial knowledge workers need to have innovative work behavior. The purpose of this study was to examine the effect of knowledge sharing mediated by creative self-efficacy on innovative work behavior among millennial knowledge workers in Surabaya, Indonesia. This research was conducted with a quantitative approach using a questionnaire-based survey involving 145 respondents who were millennial knowledge workers in Surabaya, based on the knowledge worker groups, they were 56 employees, 44 independents, and 45 business operators. This research was analyzed using explanatory research using partial least square. The finding showed that among millennial knowledge workers in Surabaya, knowledge sharing significantly influenced innovative work behavior, meanwhile, creative self-efficacy partially mediated the influence between knowledge sharing and innovative work behavior. However, further examination based on the knowledge worker category showed that creative self-efficacy did not have a mediating effect on the business operator group.

Keywords: knowledge sharing; innovative work behavior; creative self-efficacy.

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INTRODUCTION

According to Cornell University INSEAD Organization and World Intellectual Property (2020), Indonesia remain behind other Southeast Asian nations. It only ranked in the seventh position out of eleven among other Southeast Asian nations in Global Innovation Index (GII) based on its research and development, the number of patents, and

international brands, as well as high-tech product exports. The ranking indicates the lack of innovation driver in the policy of the Indonesian government and lack of awareness in its people regarding the importance of innovation which means low innovative work behavior.

Demographics have an important role in potential innovation of human resources in Indonesia. Indonesia is on the verge of a significant increase in population within the productive age range. This will change the age structure and decreasing the dependency ratio. Indonesia will get a demographic bonus, a condition where the productive age population is more numerous than the non-productive age population, it started to occur in 2020 and will peak in 2028-2030 (Lubis & Mulianingsih, 2019). The labor market in Indonesia is starting to be dominated by the Y generation or millennial generation (Lubis & Mulianingsih, 2019). Millennial is included as Y Generation, Next Generation, the Net Generation, Echo Boomers, iGeneration, Me Generation, the Next Great Generation, and MySpace Generation (Purba & Ananta, 2018).

This millennial generation is the generation born within the year 1980 to the year 1995 (Smith & Nichols, 2015). That millennial generation is technologically savvy, success-oriented, feedback-driven, and seeks to make a quick, deliberate impact (Purba & Ananta, 2018). This generation is information collectors, they are accustomed to the World Wide Web at their fingertips regardless of time (Purba & Ananta, 2018). Millennial is also unafraid to challenge corporate norms, has different perspectives on work and traditional workplace expectations, takes an active role in planning and executing their career, and has work-related value like passion, balance, leisure, and security (Purba & Ananta, 2018). Communication, media, and technology influence this generation, this generation affects the development of communications (Walden *et al.*, 2017), as such, this generation has the potential to be the driver of knowledge sharing. According to Seppanen & Gualtieri (2012), the millennial generation has different entrepreneurial characteristic from previous generations, this generation tend to like works which fit their passion, care more about an environmental issue, have high self-esteem, have optimistic nature, and aware of social things around them. Due to this distinctive characteristic as well as their prominence in the new generation of knowledge workers, they play an important role in creating innovative behavior in the workplace.

Knowledge workers are the main actors of an organization whose role is to generate knowledge; therefore, entrepreneurs are also knowledge workers (Turriago-Hoyos *et al.*, 2016). Innovative behavior is dependent on the knowledge worker's responsibility, initiative, and commitment, as well as his ability to collect, share, and distribute knowledge within the organization and solve problems (Bureau & Corsani, 2016). Therefore, different knowledge worker groups have different characteristics, as such in studying innovative work behavior it is important to analyze between groups. According to Murgia *et al.* (2016), based on characteristics, and working conditions, workers can be divided into two groups, namely organizational-employed and self-employed. Furthermore, self-employed or entrepreneurs can be divided further into two groups, they are independent contractors (independent) who do not employ others and business operators, also called micro-entrepreneur who employ a small number of employees (Prottas & Thompson, 2006; McKeown, 2015). Based on these definitions,

there are three groups of knowledge workers, namely employees, independents, and business operators.

One key to maximizing this advantage during Indonesia's future demographic advantage decade is to improve each worker's innovation capacity, also known as innovative work behavior. Knowledge workers are the primary actors in an organization, and their primary role is to generate knowledge, which is the foundation of innovation (Turriago-Hoyos *et al.*, 2016). According to Murgia *et al.* (2016), self-employed knowledge workers have distinctive features compared to salaried employees on how they behave, they are more entrepreneurial, less controlled by the rule and have discontinuity aspect, therefore, it is important to analyze each group. Prottas and Thompson (2006) and McKeown (2015) split self-employed knowledge workers into two categories, independent who do not have any employees and business operators who have employees, as such, compared to business operators, independents are more self-reliant. This research considered knowledge worker groups, namely employees, independents, and business operators. This group analysis is used to have a thorough analysis of each knowledge worker group.

According to Hughes *et al.* (2018), Yuan & Woodman (2010), and Prieto and Pérez-Santana (2014), innovative work behavior is individual behaviors that aim to reach initiative and understanding of new and useful products, processes, procedures, or ideas. Innovative work behavior is needed in every industrial sector in the nation, such as manufacture, agriculture, energy, tourism, pharmacy, and others. Indonesia must improve it to increase innovative work behavior to be able to compete in the increasingly competitive era, namely industry 4.0 where all businesses need innovation to grow and be competitive. De Jong and Den Hartog (2010) define innovative work behavior as the activity of an individual whose purpose is to introduce new useful ideas related to processes, products, and procedures. This study defines innovative work behavior as the behavior of an individual to introduce new products, processes, procedures, and ideas to their organization. There are four dimensions of innovative work behavior, the dimensions are idea generation, idea exploration, idea championing, and idea implementation (De Jong & Den Hartog, 2010; De Jong *et al.*, 2013). Idea generation is related to creating solutions to identified problems whether about products, services, processes, new market, or process improvement (De Jong & Den Hartog, 2010). Idea exploration is about looking for a way to improve existing products or services or exploring other methods (De Jong & Den Hartog, 2010). Idea championing is about finding support or building teamwork by showing interest and confidence in innovation success (De Jong & Den Hartog, 2010). Idea implementation is related to forming result-oriented behavior to bring an idea into reality (De Jong & Den Hartog, 2010).

Innovative work behavior can be built if the variables that affect it are understood. One of the variables that influence innovative work behavior is knowledge sharing (Akram *et al.*, 2018; Lin, 2007; Yeşil *et al.*, 2013; Kim & Park, 2017). Knowledge sharing is the exchange of information and skills within an organization, it allows members of a group, organization, or company to share the knowledge they have with other members (Hu & Zhao, 2016). According to Lin (2007) and Yeşil *et al.* (2013), knowledge sharing consists of two dimensions, the dimensions are knowledge donating and knowledge collecting which is a factor that influences a firm's innovation capability that is collected

from employees. Knowledge donating is the process where individuals communicate their intellectual capital to others (Yeşil *et al.*, 2013; Lin, 2007). Knowledge collecting is the process of consulting others to get them to share their intellectual capital (Yeşil *et al.*, 2013; Lin, 2007). Knowledge sharing is vital to an organization's competitiveness, it is also one of the keys to the sustainability and growth of an organization (Yeşil *et al.*, 2013; Lin, 2007). Knowledge sharing is an important method to collect and create knowledge in the workplace, it is important for successful knowledge management (Yeşil *et al.*, 2013).

Another factor that can improve innovative work behavior is creative self-efficacy which is a cognitive ability that is developed by learning and experience (Hallak *et al.*, 2018). According to Acar *et al.* (2019) and Shalley *et al.* (2004), creativity is different from innovation, creativity is about the development of new ideas that can be useful for an organization, only a successfully implemented idea is considered as innovation. Creativity self-efficacy is a person's confidence in their ability to do something to reach their goal (Hallak *et al.*, 2018). Self-efficacy is a condition when a person has confidence in their ability, as such, creative self-efficacy is a condition where a person has the confidence to express creative value from themselves (Mittal & Dhar, 2015). Employees who have creative ideas need to implement the ideas in their work, develop them, and share them with their colleagues (Joo *et al.*, 2013). To be considered to have creative self-efficacy in the workplace, originality and usefulness of idea are needed, this definition is according to the context of a creative solution for business, creative business strategy, and creative changes in the work process (Joo *et al.*, 2013).

Knowledge sharing positively influence innovative work behavior because sharing knowledge cause addition of knowledge which is needed to support innovative work, it allows the member to achieve solution from problems they face therefore optimize work result (Hu & Zhao, 2016). According to Lin (2007) and Yeşil *et al.* (2013), knowledge sharing is an important element in the competitiveness and growth of the company because it helps increase innovativeness in work. Every person needs knowledge from multiple sources to innovate to make their work better, which means knowledge sharing contributes to innovative work behavior and is useful for the sustainability of the company. The study conducted by Hassan *et al.* (2018) also found that knowledge sharing positively influences innovative work behavior. Knowledge donating and knowledge collecting impact improving innovative work behavior for continued improvement in existing procedures and operation of human capital (Hassan *et al.*, 2018). A different result from Kmiecik (2020), knowledge donating is positively related to idea creation, but the effect of knowledge collecting on idea creation is insignificant. The homogeneous knowledge collected by employees can explain the lack of a significant relationship between knowledge collection and idea creation (Kmiecik, 2020). The knowledge collection scale used by Kmiecik (2020) only focuses on the gathering of knowledge from colleagues. Employees who gather knowledge from their coworkers also gather their ideas. The more knowledge employees gather from other employees, existing knowledge will be more uniform, impeding the generation of new, innovative ideas (Kmiecik, 2020).

Hu and Zhao (2016) said that knowledge sharing increases the level of creative self-efficacy of an employee. This is because knowledge sharing enables them to discuss their mind with their colleagues and sharpen their knowledge or ideas which will develop their creative spirit and therefore creating creative self-efficacy. Mittal & Dhar (2015) also

concluded that knowledge sharing can increase and trigger the growth of employee creativity whether in the form of self-efficacy or work results.

Tran *et al.* (2018) said that creative self-efficacy influences innovative work behavior, higher creativity will result in higher innovativeness in work. Acar *et al.* (2019) and Shalley *et al.* (2004) found that creativity and innovation are different things, creativity has a positive influence on a member's innovation. Hu and Zhao (2016) also found that if a person has good creative self-efficacy, there is a high chance they can innovate in their work for the company. There is a positive relationship between creative self-efficacy and innovative work behavior, creative self-efficacy is a critical driver of innovation performance (Hu & Zhao, 2016). Continuous acquisition and incorporation of new knowledge will result in inventiveness (Hu & Zhao, 2016). Other research has found that excessive creative self-efficacy can be harmful to innovative work behavior and that this negative influence can be worse in group settings (Gist, 1987; Janis, 1972; Whyte, 1993 in Park *et al.*, 2020). The overabundance of creative self-efficacy can create overconfidence, groupthink, and increasing commitment within the group context (Park *et al.*, 2020).

Hu and Zhao (2016) use creative self-efficacy as an intervening variable that mediates the relation between knowledge sharing and innovative work behavior. They found that creative self-efficacy positively mediates the influence of knowledge sharing on innovative work behavior. However, Park *et al.* (2020) found conflicting results regarding the relationship between creative self-efficacy and innovative work behavior that is necessary for mediation.

Mixed results from past studies indicate that there are still evidence gaps in previous studies on the effect of knowledge sharing towards innovative work behavior and creative self-efficacy towards innovative work behavior. Knowledge worker groups used in this research have different characteristics that might lead to a different result in knowledge sharing, creative self-efficacy, and innovative work behavior. Furthermore, research regarding this matter on millennial generations is still scarce, therefore, this research aims to provide further insight on this matter specifically among the millennial generation as they represent the majority of new workers.

METHOD

The type of research used in this study was the quantitative method. These data were primary data with the population of the data is the millennial generation (born from 1980 to 1995) in Surabaya who are knowledge workers (employee, independent, or business operator). The sampling method used in this research was the purposive sampling method. The number of samples taken was 164, however, only 145 fit the criteria of the population, the other 19 are either not from Surabaya or not millennial generation. The 145 respondents who fit the criteria consist of 56 employees, 44 independents, and 45 business operators.

The data was collected using questionnaires. The research questionnaire consists of two parts. The first part collected data about the respondent's profile consisting of age, gender, residence, education, and job. The second part of the questionnaire was a list of statements based on an indicator that measures the variables where the respondent

responded by choosing their level of agreement on each statement. They were measured using a Likert scale ranging from 1 to 5 where strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, and strongly agree = 5.

This research used an exogenous variable (X), endogenous variable (Y), and intervening variable (Z). The exogenous variable (X) is knowledge sharing. The endogenous variable (Y) is an innovative work behavior. The intervening variable (Z) is creative self-efficacy. Knowledge sharing is the defined exchange of information and expertise in an organization. Six indicators used to measure the knowledge sharing variable were taken from the research of Lin (2007) and Yeşil *et al.* (2013). Three indicators were taken from the knowledge donating dimension, these are the initiative to share new knowledge with others (KS₀₁), the colleague's initiative to share new knowledge (KS₀₂), and the knowledge sharing culture in the workplace (KS₀₃). Three indicators were taken from the knowledge collecting dimension, these are willing to share information when asked (KS₀₄), willing to share skills when asked (KS₀₅), and colleague's willingness to share knowledge/skills when asked (KS₀₆).

Innovative work behavior is the behavior of an individual to introduce new products, processes, procedures, and ideas to their organization. Ten indicators used to measure innovative work behavior variables were taken from the research of De Jong and Den Hartog (2010). Two indicators were from the idea generation dimension, these are the ability to pay attention to new issues (IWB₀₁) and the willingness to improve things that need improvement in work (IWB₀₂). Three indicators were from the idea exploration dimension, these are the ability to look for new methods or techniques to finish work (IWB₀₃), the ability to create a correct idea for an issue (IWB₀₄), and the ability to find a new way to finish work (IWB₀₅). Two indicators were from the idea championing dimension, these are the ability to push coworkers to be enthusiastic in innovating (IWB₀₆) and the ability to convince a coworker to support innovative ideas (IWB₀₇). Three indicators were from the idea implementation dimension, they are the ability to introduce new ideas in work practice systematically (IWB₀₈), the willingness to contribute in implementing new ideas (IWB₀₉), and the ability to strive for the development of new things in the organization (IWB₁₀).

Creative self-efficacy is the belief and confidence that an individual can be creative at work. Three indicators to measure creative self-efficacy variables were taken from the research of Hallak *et al.* (2018). The indicators are the ability to create new ideas in doing work (CSEA₀₁), confidence in problem-solving during work (CSEA₀₂), and competence in developing own ideas and improving a colleague's ideas (CSEA₀₃).

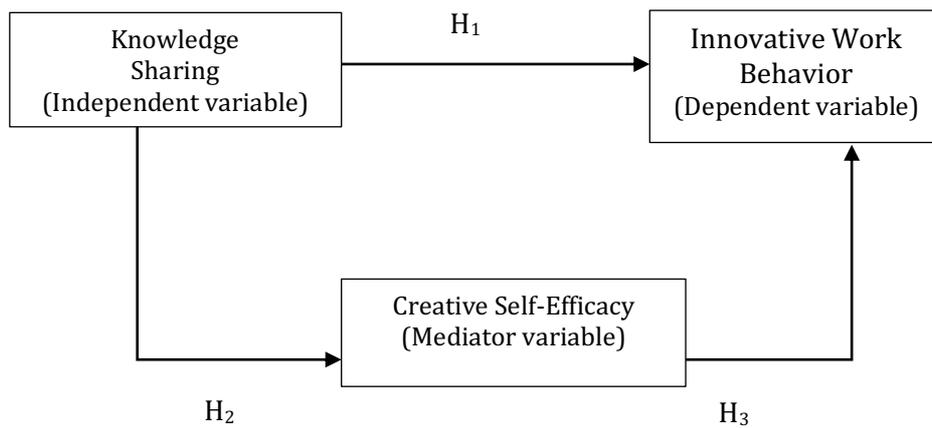


Figure 1. Research framework

Sources: Hallak et al., 2018; Hu & Zhao, 2016; Lin, 2007; Yeşil et al., 2013

The research data was analyzed using Partial Least Square (PLS). The technique used for data analysis was PLS using SmartPLS program version 3.0. PLS is a statistical technique in the Structural Equation Model (SEM) to complete multiple regressions by comparing dependent variables and independent variables.

RESULTS AND DISCUSSION

Results

The data collected in this research was 164 samples, 10 of them were not millennial generation while 9 were not from Surabaya; therefore, only 145 samples were analyzed in the research. Based on gender, 52.41% are male while the remaining 47.59% are female. Based on knowledge worker groups, 38.62% are employees, 30.35% are independents, and 31.03% are business operators. Based on their education, 6.90% were high school graduates, 4.83% were diplomas, 77.93% were bachelor, and 10.34% were magister. The mean score of the knowledge sharing variable is 4.388, the mean score of innovative work behavior is 4.197, and the mean score of the creative self-efficacy variable is 4.421.

Table 1
Descriptive Statistic

Respondent Gender	Total	Percentage
Female	69	47.59%
Male	76	52.41%
Knowledge Worker Group		Percentage
Employees	56	38.62%
Independents	44	30.35%
Business Operators	45	31.03%
Respondent Education		Percentage

Respondent Gender	Total	Percentage
High School	10	6.90%
Diploma	7	4.83%
Bachelor	113	77.93%
Magister	15	10.34%

Variable	Mean
Knowledge sharing	4.388
Innovative Work Behavior	4.197
Creative Self-Efficacy	4.421

Source: data processed

Convergent validity shows that all indicators had outer loading higher than 0.50 and their *t-statistic* was higher than 1.96; therefore, it is concluded that all indicators are valid. All indicators are valid and accurate to measure each of their latent variables. The discriminant validity test shows that all variables in the research have AVE greater than 0.50, furthermore, each indicator has its loading factor value highest at their corresponding variable compared to the other variables. This means all indicators have good discriminant validity which means they have no significant correlation with different construct gauges. The reliability test is tested by examining the composite reliability value and Cronbach's alpha. All variables have a composite reliability value greater than 0.70 and Cronbach's alpha value greater than 0.6; therefore, it can be concluded that all variables in the research are reliable.

The *R-Square* value of the innovative work behavior variable was 0.181, meanwhile, the *R-Square* value of the creative self-efficacy variable was 0.472. It means that knowledge sharing and creative self-efficacy variables explain 18.10% of the variance of innovative work behavior variables. Meanwhile, while knowledge sharing variable explains 47.20% variance of the creative self-efficacy variable. The value of *Q-Square* was 0.568, which means this research has predictive relevance of 56.80%. The remaining 43.20% is explained by variables not studied in this research.

Hypotheses in the research are tested by calculating the *p-value* or comparing the *t-statistics* with the *t-table*. This research uses a 5% significance level; therefore, the hypothesis is accepted if the *p-value* is under 0.05 or the *t-statistic* is higher than 1.96. Table 1 shows the *t-test* for the hypotheses of this research.

Table 2
Hypothesis Testing

Hypothesis	Path	Path Coefficient	<i>T-statistics</i>	<i>P-value</i>	Result
H_1	Knowledge sharing influences the innovative work behavior of millennial knowledge workers in	0.444	5.864	0.000	Significant

Surabaya					
Hypothesis	Path	Path Coefficient	T-statistics	P-value	Result
H_2	Knowledge sharing influences the creative self-efficacy behavior of millennial knowledge workers in Surabaya	0.426	2.932	0.004	Significant
H_3	Creative self-efficacy influences the innovative work behavior of millennial knowledge workers in Surabaya	0.368	4.842	0.000	Significant
H_4	Creative self-efficacy mediates the influence of knowledge sharing on the innovative work behavior of millennial employees in Surabaya	0.157	2.292	0.022	Significant

Source: data processed (PLS)

The test result of H_1 shows that the *p-value* is 0.000 and the *t-statistics* is 5.864, which means the relationship is significant. The first hypothesis is accepted, as the path coefficient is positive, this means the influence is positive; therefore, it is concluded that knowledge sharing positively influence innovative work behavior of millennial knowledge worker in Surabaya. The higher the knowledge sharing, the higher innovative work behavior will be, with a point increase in knowledge sharing will increase innovative work behavior by 0.444 points.

The test result of H_2 shows that the *p-value* is 0.004 and the *t-statistics* is 2.932, which means the relationship is significant. The second hypothesis is accepted, as the path coefficient is positive, this means the influence is positive; therefore, it is concluded that knowledge sharing positively influence creative-self efficacy of millennial knowledge worker in Surabaya. The higher the knowledge sharing, the higher creative self-efficacy will be, with a point increase in knowledge sharing will increase creative self-efficacy by 0.426 points.

The test result of H_3 shows that the *p-value* is 0.000 and the *t-statistics* is 4.842, which means the relationship is significant. The third hypothesis is accepted, as the path coefficient is positive, this means the influence is positive; therefore, it can is concluded that creative self-efficacy positively influence innovative work behavior of millennial knowledge worker in Surabaya. The higher the creative self-efficacy, the higher the

innovative work behavior will be, a point increase in creative self-efficacy will increase innovative work behavior by 0.368 points.

The test result of H_4 shows a *p-value* of 0.022 and *t-statistics* of 2,292, which means the relationship is significant. The fourth hypothesis is accepted, as the path coefficient is positive, this means the influence is positive; therefore, it is concluded that creative self-efficacy positively mediate the influence of knowledge sharing on innovative work behavior of millennial knowledge worker in Surabaya. The higher the knowledge sharing, the higher creative self-efficacy will be, and then, innovative work behavior will increase, a point increase in knowledge sharing will increase innovative work behavior by 0.157 indirectly creative self-efficacy.

Multi-Group Analysis

The research analysis also compared the result of each knowledge worker group, namely employee, independent, and business operator. The comparison from the multi-group analysis can be seen in Table 3.

Table 3
Multi-Group Analysis

Path	Instrument	Employee	Independent	Business Operator
KS → IWB	Path Coefficient	0.421	0.284	0.460
	<i>P-Value</i>	0.004	0.005	0.002
	Significance	Significant	Significant	Significant
KS → CSE	Path Coefficient	0.565	0.417	0.261
	<i>P-Value</i>	0.026	0.001	0.112
	Significance	Significant	Significant	Not Significant
CSE → IWB	Path Coefficient	0.433	0.691	0.107
	<i>P-Value</i>	0.002	0.000	0.609
	Significance	Significant	Significant	Not Significant

Source: data processed (PLS)

Discussion

Employees and the independent group have a similar result with the overall result of the research where both knowledge sharing and creative self-efficacy positively influence innovative work behavior. However, the business operator group does not have a similar result. In this group, only knowledge sharing has a significant positive influence on innovative work behavior while creative self-efficacy does not have a significant influence.

This study examines the effect of knowledge sharing mediated by creative self-efficacy towards innovative work behavior among millennial knowledge workers in Surabaya, Indonesia. Research on millennial knowledge workers has rarely been conducted, especially in Indonesia. Research regarding millennial knowledge workers is important because they are going to become the backbone of the workforce for years to

come. Our study provides valuable information for organizations, in building innovative work behavior among their members. This research focused on how knowledge sharing and creative self-efficacy influence innovative work behavior while also analyzing it based on different knowledge worker groups.

Knowledge sharing positively influences innovative work behavior among millennial workers in Surabaya. It means the knowledge sharing activity among millennial workers in Surabaya, whether to their work partner, employer, or subordinate had managed to create innovative work behavior in their workplace. Knowledge sharing is important to increase innovative work behavior. If workers can be encouraged to have the initiative to share knowledge, information, or skills and to share them with their workmate who needs them, it will be easier for them to bring innovation that can improve their organization. This result supports the previous finding of Lin (2007), Yeşil *et al.* (2013), and Hu and Zhao (2016).

Knowledge sharing positively influences creative self-efficacy among millennial workers in Surabaya. It means the knowledge-sharing activity that millennial workers in Surabaya have among their organizations had managed to improve their confidence to produce creativity. The knowledge, information, and skills gained from the knowledge-sharing process equip them with the resources needed to produce creative work, thus boosting the confidence in their ability to be creative in work. This result is in line with the finding of Mittal and Dhar (2015) and Hu and Zhao (2016). However, when examined using group analysis based on knowledge worker category, this influence is only significant for employee and independent but not significant for business operators group.

Creative self-efficacy positively influences innovative work behavior among millennial workers in Surabaya. It means that the confidence of millennial workers in Surabaya in their ability to be creative had helped them to be more innovative at work. Organizations that want their member to work innovatively must improve their member's creative self-efficacy by motivating them to have confidence in their creativeness. This result is in line with the finding of Acar *et al.* (2019), Shalley *et al.* (2004), Hu and Zhao (2016), and Tran *et al.* (2018). However, when examined using group analysis based on knowledge worker category, this influence is only significant for employee and independent but not significant for business operators group.

The total effect of knowledge sharing on innovative work behavior is 0.444, as the indirect effect is 0.157, which means the direct effect is 0.287. The direct effect is larger than the indirect effect, which means even though creative self-efficacy mediates the effect of knowledge sharing on innovative work behavior, the mediation is not full mediation but partial mediation. This result supports the finding of Hu and Zhao (2016) who found that creative self-efficacy mediates the relationship between knowledge sharing and employee innovation. However, when examined using group analysis based on knowledge worker category, this influence is only significant for employee and independent but not significant for business operators group.

An interesting finding from this research is that creative self-efficacy does not mediate the influence of knowledge sharing towards innovative work behavior among knowledge workers from the business operator group. This can be explained by analyzing the difference of characteristics between business operators toward other groups such as

employee and independent. Unlike employees or independent, business operators work with some employees of their own, instead of putting pressure as a competitor, these employees support the business operator, therefore minimizing the importance of their creative self-efficacy.

CONCLUSION

Knowledge sharing significantly influence creative self-efficacy among millennial worker in Surabaya. Knowledge sharing also significantly influence innovative work behavior among millennial worker, especially employee and independent in Surabaya. Facilitating knowledge, information, and skills sharing among members will help them improve their confidence in their creative ability and create innovative behavior in work that can give a competitive advantage for the organization. Therefore, it is recommended that the organization encourages knowledge sharing among its members. Organizations can encourage it by giving incentives for the members to share their knowledge/skills and facilitate the sharing process whether by implementing a knowledge sharing system/tools or organizing routine meetings/training.

Creative self-efficacy significantly influences innovative work behavior, it also partially mediates the effect of knowledge sharing on innovative work behavior among millennial workers, especially employees, and independent in Surabaya. Therefore, organizations also need to consider their approach toward their member to make sure that they have confidence in their creative ability. It can be done by making sure that the job demands are appropriate to the member's creative ability. Encouraging knowledge sharing will also boost member's confidence in their ability to create creative work which is important to create innovation.

The study is not without limitations. Analysis of the finding reveals that there are unobserved variables that might explain innovative work behavior. Future research needs to consider additional variables that might influence innovative work behavior, such as learning orientation, digital literacy, and leadership competency. Future studies also need to consider specifically researching business operator groups and add entrepreneurial-related variables as related to Murgia *et al.* (2016), this group has distinct enterprise characteristics that deserve differentiation in studies. By specifically study the knowledge worker group, the practicality of the study will increase.

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