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The effects of knowledge management and risk taking on SME financial performance in creative industries in an emerging market: the mediating effect of innovation outcomes

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Abstract

The purpose of the present study is to examine the effects of knowledge management and risk taking on financial performance in which negative innovation outcomes was chosen as a mediator variable. The present study uses the context of small and medium enterprises (SMEs) in creative industries in Indonesia which is an emerging market economy. Based on an analysis of data from 165 small business owners in creative industries in Indonesia, the present study found some interesting notion regarding SME innovation. The results of this study indicate the importance of knowledge management and risk taking as ways of reducing negative innovation outcomes. Further, it was found that negative innovation outcomes did not mediate the links between knowledge management, risk taking, and SME financial performance. The present study offers some insights from Indonesia as an emerging market economy which may have different characteristics compared to other contexts. Risk taking represents a clear growth path to enhance SME financial performance. This is partly because Indonesia as an emerging market with a collectivist culture may encourage SMEs to be more open to changes and social networks that enhance knowledge management, and more importantly new ways of doing business. The present study uses negative innovation outcomes and SME financial performance to indicate whether SMEs in an emerging market economy can benefit from business innovation.

Keywords: Knowledge management, Risk taking, SME innovation, Emerging markets, Indonesia, Innovation outcomes, SME financial performance

Introduction

Combining small and medium enterprises (SMEs) and creative industries may offer an advantage to the economic development of an emerging economy such as Indonesia. SMEs simply want to find a way to survive because they do not have alternatives, but this may not be the case in SME in the creative industries as they pursue business for innovation rather than merely survival. They are dealing with intense competition and rapid changes that require creativity and innovation. These factors would encourage them to proactively find ways to innovate. Moreover, SMEs have long been propagated as “heroes” in Indonesia as they have contributed positively to Indonesia’s economy (Tambunan, 2019). Creative industries SMEs in Indonesia may represent a new type of Indonesian SMEs: SMEs that are focusing on innovation and resiliency in doing so. This may lead to a notion that these creative industries SMEs are strongly linked with ways of absorbing and adopting innovation, and to benefit from its implementation.

While innovation is regarded as beneficial for SMEs, it is common to see SME owners-managers being reluctant to do it as they know that innovation is risky. Sivadas and Dwyer (2000) argued that SME innovation is risky because it is costly and there is no guarantee that it will enhance organizational performance. Further, SMEs in an emerging market such as Indonesia mostly do not have rooms for many mistakes. Once they do that, they will have to remodel their business and they cannot afford that. Indonesia as an emerging market provides business opportunities, but this market has also been targeted by many firms including SMEs (Games, 2019). For example, some SMEs in Indonesia face transition in terms of the use of information technology (IT) and e-commerce. On the one hand, this has given these existing SMEs some opportunities to reach new markets. On the other hand, this has given opportunities for new players, for example those who are familiar with IT, to enter a business world in which they can easily compete with existing SMEs.

Regarding the fact that innovation may cause troubles or immediate risks to SMEs, it is indeed important to find out whether innovation is really beneficial for SMEs. This is the reason why the present study uses the concept of innovation outcomes. As suggested by Simpson, Siguaw, and Enz (2006), innovativeness and entrepreneurial orientation have two consequences: positive and negative outcomes. In particular, the present study chooses negative innovation outcomes that would indicate whether innovation may cause negative effects to SMEs. These negative effects are, for example, too much change for change sake, customer dissatisfaction, employee resistance, and increased costs (Simpson et al., 2006). This research did not include positive innovation outcomes (e.g., customer satisfaction, employee trust) as a mediator variable, as the present study considers negative innovation outcomes as sufficient to see the impact of knowledge management and risk taking on SME innovation and financial performance. Accordingly, SMEs’ abilities to significantly minimize the negative effect of innovation implementation will indicate SMEs capability to innovate successfully. Consequently, SMEs need to identify and strengthen key success factors that lead to successful innovation implementation.

The present study uses knowledge management and risk taking to see whether these innovation-related concepts will reduce negative innovation outcomes that may occur during innovation implementation. Knowledge management relates to how organizations absorb knowledge and take lessons and assistances mainly from the external environment (e.g., Kör & Maden, 2013; Soutar & McNeill, 1993) which is an important aspect of innovation capability (Saunila, 2014). This signifies the significant efforts and costs that SMEs need to commit to in order to enter a new level of performance. In addition, risk taking can be regarded as a way to make the most of innovation even if it is a risky move from SMEs. These conceptualizations are relevant for creative SMEs which can be categorized as creative industries such as in culinary, handicrafts, and IT. These SMEs heavily rely on creativity which in turn enhances business innovation and this indeed may distinguish them from other SMEs.

While reducing negative innovation outcomes can be one of the objectives of the SMEs in creative industries, it is expected that they still perceive financial performance as an important objective. Reducing negative innovation outcomes without giving advantages in terms of financial indicators may demotivate SMEs in creative industries to implement innovation even if they know that it is worthwhile to do. In addition, Jansen, Van Den Bosch, and Volberda (2006) found that, for some enterprises, operating in more dynamic environments improved financial performance, as they pursued exploratory innovations. These environments stimulated their creativity and adaptation strategies. This is highly relevant in the context of Indonesia as an emerging market in which there is a dynamic environment that leads to a better level of SME innovation.

The present study combines variables that potentially lead to lower negative innovation outcomes, namely knowledge and risk taking, and links them to SME financial performance. SME financial performance is assessed to see whether SME can benefit in terms of finance from all of the variables. The context of Indonesia as an emerging economy would have given additional perspectives in this study. This may enrich our understanding in SME innovation, in particular negative innovation outcomes in an emerging market economy.

The present study uses knowledge management and risk taking to see whether these innovation-related constructs have impacted innovation outcomes, in this case, negative innovation outcomes. It also wants to examine the role of the innovation outcomes as a moderator variable that links knowledge management, risk taking, and financial performance. Innovation outcomes also reflect the organization's ability to benefit from the implementation of innovation (Sawang, Unsworth, & Sorbello, 2007). The present study follows the innovation outcomes model that was identified by Simpson et al. (2006). They identified two outcomes of innovation: positive outcomes (e.g., rising market share, consumer satisfaction, worker satisfaction) and negative outcomes (e.g., rising costs, sacrificing short-term profits, and operating outside core competencies). They have identified that previous studies often discuss more about factors that cause innovation to be implemented within an organization. In this case, an inadequate amount of research on innovation outcomes will provide incomplete knowledge related to small business outcomes. Simpson et al. (2006) and Laforet (2013) include financial performance as a result of innovation outcomes which can subsequently benefit innovation performance.

Wiklund, Patzelt, and Shepherd (2009) have identified a model for SME business growth that included entrepreneurial intention, a variable that takes into account risk taking and proactiveness. Following this conceptualization, risk taking and knowledge management can be seen as growth path for SMEs. Indarti (2010) identified that SME innovation in developing countries have different characteristics compared to their counterpart in developed countries especially because of a lack of resources. However, this does not mean there is a clear distinction between SME business growth model in these two general contexts. Games (2019), for example, concluded that there were no significant behavioral characteristics between small business owners in Indonesia and those who run their businesses in a more developed country. The foundational model of the present study primarily comes from Simpson et al. (2006), Laforet (2013), and Wiklund et al. (2009) that used the context of developed countries. The present study will confirm whether the context of emerging and dynamic market in Indonesia could provide some additional perspective regarding SME innovation.

Knowledge management, risk taking, and innovation outcomes

Knowledge management is a business process that is related to creating new knowledge and ensuring the use of knowledge in the organization whenever needed (Kör & Maden, 2013; Parlby & dan Taylor, 2000). Further, according to Darroch and McNaughton (2003), knowledge management is divided into three categories: knowledge acquisition, knowledge sharing, and knowledge application. This means that knowledge management requires an organization's capability to interpret, implement, and to benefit from knowledge. In terms of knowledge management in SMEs, it has been identified that SME resilience requires knowledge retention through strategic managerial thinking (Gunasekaran, Rai, & Griffin, 2011). This is to emphasize the importance of owners and managers as strategic thinkers in SMEs as they will take SMEs to behave as real business organizations.

Risk taking is the willingness of an organization to decide and act without a definite knowledge of possible income and possibly speculate in personal risk, financial and business (Dess & Lumpkin, 2005). Risk taking reflects the way organizations perceive business opportunities (Moon, 1999). This means that business organizations may aggressively maximize their potentials to seek and benefit from business opportunities. SMEs that were not designed to innovate and are satisfied with current performance are more likely to be unwilling to take risks (Storey, 1994). However, SMEs need to take risks, as this indicates their openness to change, including new ways of working (Laforet & Tann, 2006). SME actors who dare to take risks have the opportunity to succeed. With their limited resources, SMEs might adopt a "me too" approach in which they imitate others already in the market so as to reduce business risk and the cost of innovation (Irjayanti & Azis, 2012).

According to studies by Shalley and Gilson (2004) and Yuan and Woodman (2010), organizations that encourage risk taking can influence employee behavior toward innovation, thus benefiting organizational innovation as a whole. Furthermore, according to Wang and Poutziouris (2010), increasing risk taking increases the rate of successful innovations and increases employee commitment and satisfaction. Results of research by Games (2019) and García-Granero, Llopis, Fernández-Mesa, and Alegre (2015) also found a positive effect from risk taking on innovation. These have strengthened the notion that risk taking has a strong link with SME innovation.

There has been a great deal of debate in the literature as to how innovation should be defined (Baregheh, Rowley, & Sambrook, 2009). For example, West and Farr (1990, p. 9) defined innovation as "the intentional introduction and application within a job, work team or organization of ideas, processes, products or procedures which are new to that job, work team or organization and which are designed to benefit the job, the work team or the organization". This definition suggests that innovation should have benefited SMEs. Some researchers suggest that organizations can gain more benefits if they develop, communicate, embrace, and explore innovation orientations (e.g., Aziz & Samad, 2016; Saunila, 2014). Accordingly, several studies have investigated positive outcomes and negative outcomes resulting from an innovation orientation (e.g., Lukas, Menon, & Bell, 2002; Sharma & Lacey, 2004), but the concept of negative innovation outcomes is more rarely researched. Essentially, organizations including SMEs can significantly benefit from innovation if they can both reduce negative innovation outcomes and increase the positive innovation outcomes. The less negative the outcomes, the more chance by SMEs to benefit from innovation. Negative innovation outcomes involve various issues from both internal and external environment. These are, for example, too much change for change sake, market risk, employee resistance, customer dissatisfaction, and increased costs (Simpson et al., 2006). This means that reducing negative innovation outcomes need a holistic approach that systematically improves organizational performances and their responses to external environments.

Innovation requires the generation of new knowledge to meet market needs (Benner & Tushman, 2003). It is also worth noting that with the practice of knowledge management in SMEs, it will affect the ability of SMEs to increase risk taking in their business activities because SMEs have guidelines from knowledge management as a basis in making risky decisions in their business. This is in line with the suggestion by Gunasekaran et al. (2011) that knowledge may transform SME owners to become strategic thinkers. Additionally, by consistently implementing innovation, SMEs would be required to acquire and adapt knowledge, and this would be the key point for the net cycle of innovation implementation (Hargadon & Sutton, 1997; Kostopoulos, Papalexandris, Papachroni, & Ioannou, 2011). Organization may seek knowledge from external sources and use it for its innovation implementation (Tsai, 2001).

As mentioned previously, there is a strong link between SME innovation and risk taking (e.g., Laforet & Tann, 2006). In addition, risk taking as a part of entrepreneurial orientation has been identified as an important point for enhancing SME innovation performance (Wiklund et al., 2009). Thus, knowledge management and risk taking are expected to be able to reduce the negative innovation outcomes which lead to SMEs that fully benefit from innovation. Based on the above discussion, the hypotheses are as follows:

H1: Knowledge management is negatively related to negative innovation outcomes.
H2: Risk taking is negatively related to negative innovation outcomes.

Negative innovation outcomes and SME financial performance

Sawang et al. (2007) and Totterdell, Leach, Birdi, Clegg, and Wall (2002) identify that SMEs should gain significant benefits from innovation in terms of financial performance, as it signifies the importance of innovation effectiveness in which innovation should be directed to benefit the organization as a whole including in terms of financial gain. Innovation implementation is seen as a way of pursuing better financial performance even if there is no guarantee that firms can benefit from it (Sivadas & Dwyer, 2000).

By following the logic above, business innovation should be able to effectively be implemented in SMEs. Business cost in implementing innovation is inevitable, but this should be directly linked to SME performance. In other words, SMEs need to reduce negative outcomes that may occur when business innovation is implemented. These negative outcomes can be signified by the increasing costs in doing business (Simpson et al., 2006; Laforet & Tann, 2006). In addition, "too much change for change sake" indicates negative innovation outcomes as it represents a meaningless innovation (Simpson et al., 2006). These are expected to have a direct effect to organization's financial performance. A meaningless innovation, for example, requires working capital that does not improve SME performance, while SMEs may have no sufficient funds for business innovation.

By reducing negative innovation outcomes, it is expected that SMEs will decrease their unnecessary business costs. This is also a representative of SMEs capability to benefit from innovation implementation (Laforet & Tann, 2006). In brief, negative innovation outcomes are more likely to result in a positive financial performance.

Thus, the hypothesis is identified as follows:

H3: Negative innovation outcomes are negatively related to financial performance.

The mediating effect of negative innovation outcomes

As can be seen from Fig. 1 below, the present study intended to see the relationship between knowledge management, risk taking, and negative innovation outcomes which in turn may have an effect on SME financial performance. Previous studies (e.g., Laforet, 2013; Simpson et al., 2006) have identified innovation outcomes as a mediator in the relationship between innovativeness and financial performance. Thus, two hypotheses are postulated as follows:

H4: Negative innovation outcomes mediate the relationship between knowledge management and financial performance.
H5: Negative innovation outcomes mediate the relationship between risk taking and financial performance.

The theoretical framework that describes the formulation of the hypothesis is illustrated in Fig. 1 as follows:

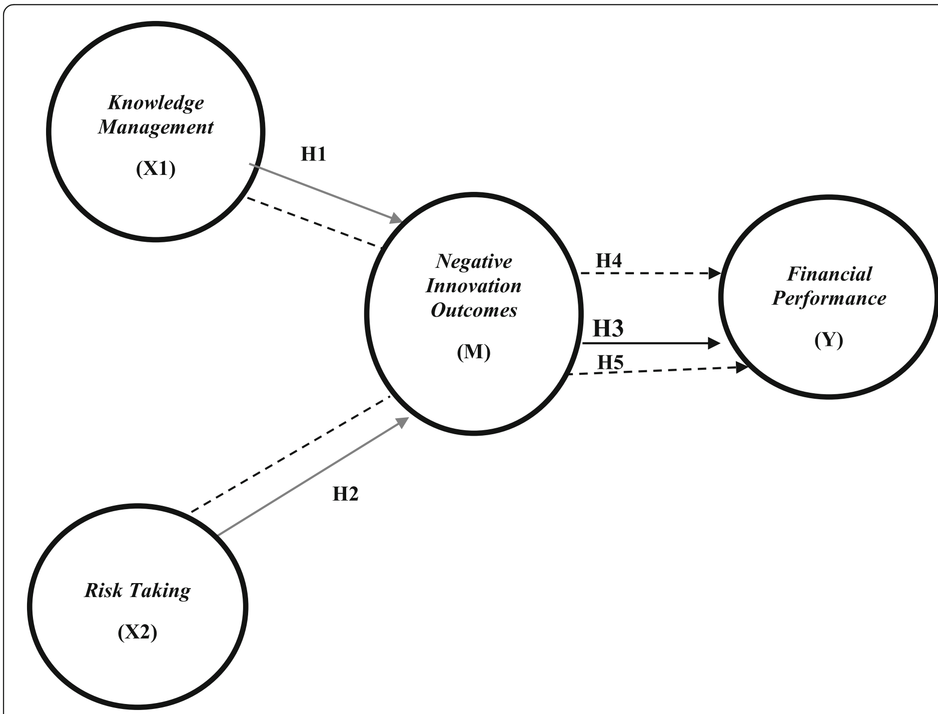

Fig. 1 Conceptual framework

Research approach and methodology

The present study used a quantitative approach. Partial least squares (PLS) with SmartPLS 3 was used to estimate the structural model. In PLS, the overall model consists of an inner model and an outer model. The outer model includes the relationships between the various latent variables and their indicators. This is used to assess validity and reliability. The inner or structural model includes the relationships between the latent variables, in this case, the links between knowledge management, risk taking and negative innovation outcomes, and SME financial performance. The respondents of this research were owner-managers of the creative industry SMEs in West Sumatra, Indonesia, using a sample of 165 respondents which was collected in September 2018. By using purposive sampling technique, the respondent of this study was the manager or owner of the creative industry SMEs with a minimum 1-year experience in their current business. In order to obtain higher response rates, the present study therefore used a self-administered approach, in which questionnaires were hand-delivered to respondents and picked up after completion.

In almost all cases, a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to obtain the required responses. The exception is the SME financial performance scale, in which a five-point scale was used, from 1 = "much worse" to 5 = "much better." López, Peón, and Ordás's (2006) knowledge management measure was used with dimensions of knowledge acquisition, knowledge sharing, and knowledge application. Some example items of the statements are "all the members of the organization share the same aim, to which they feel committed"; "employees share knowledge and experience by talking to each other"; and "teamwork is a very common practice in the organization".

Risk taking was measured using items adapted from Shoham, Vigoda-Gadot, Ruvio, and Schwabsky (2012). Some example items used in this case were "we believe higher risks are worth taking if there are high payoffs"; "we encourage innovative strategies, even knowing some will fail"; and "we like to take big risks". As mentioned previously, Simpson et al.'s (2006) negative innovation outcomes measure was used. Some example items in negative innovation outcomes are "innovation is too much change for change sake"; and "innovation encourages employee resistance". In terms of SME financial performance, Torugsa, O'Donohue, and dan Hecker's (2012) SME financial performance was used by asking the respondents to rate their financial performance items—return on assets and net profits to sales—over preceding 6-month period compared to similar SMEs in their industry sector.

Findings

Characteristics of respondents

Respondents in this study consisted of owners-managers of the creative industry SMEs in West Sumatra, Indonesia. In terms of gender, 107 respondents were males (65%) and 58 of the respondents were female. In terms of the level of education, respondents were dominated by those who graduated from of high school (59%), followed by bachelor degree (35%). A majority of the respondents (62%) have less than 5-year experiences in business. They came from various sub-sectors in the creative industry: culinary (40% of the respondents), fashion (20%), and handicrafts

(13%) and others such as publishing and printing, and advertising, and computer and software.

Validity and reliability

In terms of convergent validity, all indicators have the outer loading value of greater than 0.5, so that the indicators used in this study are valid and have convergent validity. Another method for assessing convergent validity is with average variance extracted (AVE). Table 1 shows that the AVE value has met the standard of 0.5, so that the construct is worthy of further testing.

Discriminant validity is used to identify whether the construct has an adequate discriminant, assessed by comparing the loading value in the construct that is intended to be larger than the loading value with another construct. Table 2 shows the results of discriminant validity from the value of cross loading between indicators with each construct. The value of each indicator on the latent variable looks higher than the correlation between the indicators that exist in each other variable. That is, the results of cross loading have shown good discriminant validity.

In terms of reliability, composite reliability is greater than 0.7, so that all of the construct are considered reliable (Table 3).

Analysis of inner model

Based on the value R square, it was found that approximately 17% of SME financial performance is explained in the model. In addition, the explained variance of negative innovation is 24%. In terms of the relative importance of each construct that can be indicated by path coefficient, as can be seen from Tables 4 and 5, risk taking was shown as the most important construct as it reduced negative innovation outcomes and was positively and significantly related to SME financial performance.

The mediating role of negative innovation outcomes in the relationships between knowledge management, risk taking, and financial performance

The role of negative outcomes' innovation as a mediator variable was assessed by using the method of variance accounted for (VAF). However, before identifying whether there was a mediating influence, a comparison was made between direct effect and indirect effect. If direct effect has a smaller value than indirect effect, there will be a mediator variable that links the independent variables (knowledge management and risk taking) and the dependent variable (SME financial performance). The results of indirect effects and direct effects can be seen in Table 5 above.

As can be seen from Table 5, the direct effect knowledge management and risk taking on financial performance is higher than the indirect effects. Therefore, negative

Table 1 AVE

Variables	Average variance extracted (AVE)
Financial performance	0.724
Knowledge management	0.517
Negative innovation outcomes	0.536
Risk taking	0.677

Table 2 Cross loading

	Financial performance	Knowledge management	Negative innovation outcomes	Risk taking
FP1	**0.832**	0.195	− 0.244	0.315
FP2	**0.869**	0.271	− 0.193	0.361
KM10	0.145	**0.736**	− 0.365	0.364
KM12	0.137	**0.694**	− 0.244	0.352
KM17	0.283	**0.765**	− 0.302	0.321
KM4	0.215	0.679	− 0.187	0.326
NIO2	− 0.209	− 0.319	**0.755**	− 0.330
NIO3	− 0.322	− 0.360	**0.763**	− 0.374
NIO4	− 0.068	− 0.217	**0.747**	− 0.254
NIO5	− 0.096	− 0.162	**0.701**	− 0.208
NIO6	− 0.103	− 0.292	**0.692**	− 0.211
RT3	0.285	0.363	−0.334	**0.801**
RT4	0.367	0.408	−0.324	**0.844**

innovation outcomes did not mediate the relationship between knowledge management and SME financial performance (H4 is not supported). Negative innovation outcomes also did not mediate the relationship between risk taking and SME financial performance (H5 is not supported).

Discussions

It was found that knowledge management has a negative and significant influence on negative innovation outcomes. This is supported by research from Liao and Wu (2010) that effective knowledge management is beneficial in enhancing innovation. Knowledge management in SMEs represents their willingness and capability to innovate. Knowledge management requires the openness to eternal assistances and networks, capability to adopt innovation, and to make certain that employees embrace innovation and be a part of the organizational changes. The finding of this research showed that knowledge management can be used to effectively reduce the negative innovation outcomes, which indicated that SME need to implement knowledge management to have maximum benefit from innovation implementation.

Risk taking is negatively and significantly related to negative innovation outcomes and it has become the most important construct for enhancing SME financial performance. This is in line with previous studies that emphasized the importance of risk taking in business innovation (e.g., García-Granero et al., 2015; Wang & Poutziouris, 2010; Yuan & Woodman, 2010). This finding is encouraging for SMEs who are willing to take some risks. Risk taking is a result of thinking and acting in a different way (Gupta & Acharya, 2018). Perhaps, this is natural for these SMEs in creative industries. The fact

Table 3 Composite reliability and Cronbach's alpha

	Cronbach's alpha	Composite reliability
Financial performance	0.62	0.84
Knowledge management	0.75	0.83
Negative innovation outcomes	0.80	0.85
Risk taking	0.50	0.74

Table 4 Hypothesis testing

Hypothesis	Original sample (O)	T statistics (| O / STDEV |)	*P* values	Results	Conclusion
H1: Knowledge management is negatively related to negative innovation outcomes	− 0.263	3.042	0.002	Knowledge management is negatively related to on negative innovation outcomes	H1 is supported
H2: Risk taking is negatively related to negative innovation outcomes	− 0.276	3.883	0.000	Risk taking is negatively related to innovation negative outcomes	H2 is supported
H3: Negative innovation outcomes is negatively related to financial performance	− 0.092	0.979	0.328	Negative innovation outcomes negatively related to financial performance	H3 is supported

that a majority of the respondents are relatively new in business (less than 5 years) may play a role. Flexibility of new companies can enable them to adapt to a changing environment or induce rapid industry change itself. This is supported by Rosenbusch, Brinckmann, and Bausch's (2011) research which shows that new businesses are more profitable in terms of innovation than businesses that have been established for a long time. This is not in line with Baregheh, Rowley, and Hemsworth's (2016) finding that organizational age did not influence SME innovation.

In a broader sense, negative outcomes such as consumer dissatisfaction, employees' distrust, and unnecessary and meaningless innovation indeed have no link with SME financial performance. This indicates that implementing knowledge management and risk taking should be done by SMEs to avoid having to face these negative consequences. Interestingly, knowledge management has a positive but not significant effect on financial performance. This is perhaps because it would take time to benefit financially from knowledge management. Also, SMEs in this study are dominated by relatively new businesses (having been in business for less than 5 years). In addition, risk taking has a positive and significant influence on financial performance. This means that by taking some risks, SMEs will get financial benefits. Judging from these results, risk taking may complete knowledge management as the latter may not give an immediate impact in terms of financial performance.

Regarding the role of negative innovation outcomes as a mediator variable, it turns out that the negative innovation outcomes did not mediate the relationship between independent variables knowledge management and financial performance. This is supported

Table 5 Indirect and direct effects

Indirect effect	Original sample (O)	Sample mean (M)	Standard deviation	T statistics	*P* values
Knowledge management → Financial performance	0.024	0.024	0.028	0.851	0.395
Risk taking → Financial performance	0.025	0.027	0.029	0.872	0.384
Direct effect					
Knowledge management → Financial performance	0.136	0.143	0.122	1.113	0.266
Risk taking → Financial performance	0.338	0.347	0.086	3.913	0.000

by the results of Gupta and Acharya's (2018) research which states that there is no mediating effect of innovation between risk taking and performance. Considering that knowledge management did not significantly relate to SME financial performance, it is only risk taking that significantly and negatively related to negative innovation outcomes and positively related to financial performance. This has given a strong support to a notion that risk taking will be a significant boost for SMEs of creative industries in Indonesia.

Essentially, the present study shows that SME innovativeness that have been proposed by Simpson et al., 2006 and Laforet (2013) indeed have a positive and significant impact on SME innovation, in this case, by reducing negative innovation outcomes in SMEs. SME innovativeness is also expected to have a positive and significant impact on SME financial performance. Likewise, entrepreneurial orientation as an important factor for SME business growth has also been confirmed in this study. This is because risk taking and knowledge management have been selected as representatives of innovativeness and entrepreneurial orientation respectively. However, only risk taking was found to not only reduce negative innovation outcomes but also increase financial performance. This has become the ultimate finding in this study that can complement the findings of previous studies in this regard. The context of Indonesia as an emerging market may also indicate the importance of risk taking as it offers abundant business opportunities (Games, Soutar, & Sneddon, 2013). This is in line with a perspective by Laforet and Tann (2006) that has suggested that SMEs need to take risks, as this indicates their openness to change, including new ways of working.

Conclusion

The objective of this study was to determine the effect of knowledge management, risk taking, negative innovation outcomes, and financial performance in Indonesia in the context of an emerging market economy. Both risk taking and knowledge management have been seen as representatives of innovativeness and entrepreneurial orientation that are important part of SME business growth model. The present study confirms these three important findings: negative innovation outcomes indeed have not resulted in better SME financial performance; knowledge management and risk taking are important to reduce negative innovation outcomes; and risk taking is an essential element for these SME innovation and financial performance. By investigating the role of innovation outcomes as a mediator variable, risk taking has been considered important in SME innovation and financial performance. Risk taking represents a clear growth path to enhance SME financial performance. This is partly because Indonesia as an emerging market with a collectivist culture may encourage SMEs to be more open to changes and social networks that enhance knowledge management, and more importantly new ways of doing business.

Knowledge management is important as it would have given openness to changes, flexibility, and endurance to implement innovation, but it is not enough as it may take time to enhance SME financial performance. Combining knowledge management and risk taking will not only be good for SME innovation but are also good for SME financial performance in the creative industries in the context of an emerging market economy-Indonesia.

Limitations and future research

The present study has some limitations. Firstly, the present study offers some insights from Indonesia as an emerging market economy which may have different characteristics to other contexts. Secondly, a majority of the respondents are new in business and perhaps they may see business innovation as imperative in creative industries. Thirdly, it may also not be sufficient to see the result of the implementation of knowledge management. Fourthly, this research also did not include positive innovation outcomes as a mediator variable, as the present study see negative innovation outcomes as sufficient to see the impact of knowledge management and risk taking. Future research may include other innovation-related constructs such as radicalness and other external factors while also collecting a bigger sample size. It could also be useful to include the external environment, as it was suggested by Wiklund et al. (2009) that it has become an important factor in SME business growth model. Comparison between "SMEs in creative industries" in various regions in Indonesia as well as international comparison would also provide some insights for SME innovation research.

Implications

There are some implications especially for SME owners-managers in this study as follows. Firstly, they should not give up in implementing the concept of knowledge management that encourage, for example, openness to changes, team work, flexibility, and learning organization. It may not give an immediate impact on SME financial performance, but together with risk-taking approach, this may not be a problem. Risk taking requires SME owners-managers to seek and benefit from business opportunities which are abundant in the context of Indonesia as an emerging market. There may be some unanticipated risks, but they should not be afraid to fail in dealing with changes as some SMEs may not even want to try.

Knowledge management requires openness to changes such as assistances from external environment. In this regard, SMEs need to establish networks that come from collectivist cultures in Indonesia which are now in a transitional phase. Managing the networks and partnership will accelerate SME innovation and this may encourage the sense of togetherness within SMEs and their external environments.

Abbreviations

AVE: Average variance extracted; IT: Information technology; PLS: Partial least squares; SME: Small medium enterprise; VAF: Variance accounted for

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Availability of data and materials

The data sets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Authors' contributions

DG, as the corresponding author, mainly formulated the objective, the research approach, and the model. DG also edited the draft. RPR summarized the literatures from different scholars of the same study; collected, analyzed, and interpreted the data; and discussed the implication of the study. Both authors read and approved the final manuscript.

Competing interests
The authors declare that they have no competing interests.

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