VILNIUS TECH
Vilnius Gediminas Technical University

Business: Theory and Practice
ISSN 1648-0627 / eISSN 1822-4202
2023 Volume 24 Issue 1: 1–12
https://doi.org/10.3846/btp.2023.14912

LINKAGES NASCENT ENTREPRENEURSHIP AND KNOWLEDGE QUALITY RESONANCE: EXPLORE VOLUNTARY CO-CREATION FROM SERVICE DOMINANT LOGIC

Agustinus MOONTI[1], Roymon PANJAITAN[2], Echan ADAM[3*], Astil Harli ROSLAN[4]

[1, 3]*Department of Agribusiness, Universitas Negeri Gorontalo, Gorontalo, Indonesia*
[2]*Department of Economy, Universitas Dian Nuswantoro, Semarang, Indonesia*
[4]*Department of Management, Halu Oleo University, Kendari, Indonesia*

Received 10 May 2021; accepted 2 September 2022

Abstract. This research aims to explore a new conceptual model capable of filling the research gap on the experience of nascent entrepreneurs and the quality of knowledge resonance, which centered on exploring voluntary co-creation of shared value. Data were obtained from the experience of 232 start-up multisectoral companies in Java Island, Indonesia. The findings of this study contribute empirically and practically to the knowledge needed to investigate the creation of shared value. The results showed that the direct impact experienced by nascent entrepreneurs is negatively correlated, while the relationship associated with quality resonance of knowledge to the performance of business innovation is positive. Secondly, the concept of the model is proven by the high willingness to explore voluntary co-creation from service-dominant logic to bridge the negative correlation gap of the experience of nascent entrepreneurs. Thirdly, the direct impact led to the voluntary creation of shared value complements with limitations on the dominant service logic of the optional co-production into a co-creation concept called value-in-use. This model instils an attitude on the importance of voluntary exploring co-creation of high nascent entrepreneur experience and the quality knowledge resonance.

Keywords: innovation business performance, knowledge quality resonance, nascent entrepreneur experience, voluntary to explore co-creation.

JEL Classification: L26, M13, M31.

Introduction

Businesses are encouraged to grow in accordance with innovation, which is accelerating rapidly irrespective of the type and scale of businesses. This is a big concern for nascent entrepreneurs in terms of resources and quality of knowledge. These factors occur in the diffusion of this innovation, with one acting as an opportunity (Devece et al., 2016; Jensen et al., 2020; Yachin, 2019; Yu et al., 2020), and the other a threat (Brummer, 2022; Denning, 2014; Haney, 2017; Sheikh, 2017; Strelkova, 2018; Wedy & Pimentel, 2021). Generally, there are some constraints associated with the experience of newly pioneered entrepreneurs in innovation strategies. Therefore, the ability to compete in the innovating and dynamic marketing capabilities has become important for entrepreneurs (Buccieri et al., 2020, 2021; Hu et al., 2017; Sijabat et al., 2021). Other factors such as mental, capital, and goal orientation are additional parameters of the experience of nascent entrepreneurs. However, there are still gaps or limitations associated with these factors, therefore, this research scope is expected to contribute to knowledge complement, especially testing of the development of axiom (SDL) service-dominant logic.

Some of the constraints of this research are related to the experience of nascent entrepreneurs. Firstly, they are still oriented towards marketing goods, which is seen as disrespecting the role of services. Secondly, for a product to be sold, it needs to have benefits and value during the production process. However, start-ups find it difficult to offer superior value compared to their competitors. Thirdly, nascent entrepreneurs have limited or operant resources, such as knowledge and skills, which are key components to moving tangible assets in value creation. This is a problem because their source of working capital is still not financially established. According to Chouksey and Karmakar (2017), Lee and Black (2017), Fairlie (2013), and

*Corresponding author. E-mail: *echanadam@ung.ac.id*

Sawyer and Dalgleish (2015) capital entrepreneurs still use personal and family savings, as well as loans. Therefore, from the above problem, this research aims to determine the effort needed to optimize limited resources in terms of the experience of nascent entrepreneurs.

The attributes of a nascent are channelled towards an established entrepreneur, which led to the establishment of a Service-Dominant Logic (SD Logic) by Vargo and Lusch (2004). In this concept, Vargo and Lusch developed 11 foundational premises. The conceptual change explains the paradigm of thinking in identifying the change in the value of a product by the company. This paradigm is an evolution of the traditional concept known as Goods Dominant Logic (GD Logic), where resources as inputs are manufactured into goods as outputs. This paradigm also changed the perspective of GDL to SDL.

An important attribute that needs to be criticized from the concept of GD Logic is that this paradigm is unable to explain the strategies used in processing resources. This weakness occurs because GD Logic separates the producer as the actor that creates the value of an item using the available resources and the consumer as one that consumes the value of goods produced. In the service industry, consumers become part of the process of product value creation. This condition is unexplainable using a paradigm where producers and consumers are separate actors with exclusive roles in the market.

Secondly, in SDL there is a difference between co-production and co-creation. For instance, in the optional co-production state, not all consumers want to participate in value creation. However, this is opposed to the co-creation state, which is mandatory. This difference in SDL has not been deeply explored due to the poor experience and inadequate knowledge of nascent entrepreneurs in creating innovation. Generally, improved innovation performance is measured by the creation of new and unique products. However, SDL limited tends to explain the techniques needed to convince consumers to be a necessity in the creation of value, thereby encouraging product consumption. This is reinforced by a research carried out by Lusch (2007), which stated that only the use of goods in the process of "consumption," or so-called "value in use," determines value formation. Therefore, the importance of volunteering to explore this co-creation is expected to bridge or complement the weaknesses for knowledge.

The concept of voluntary co-creation of entrepreneur experience and quality of knowledge improves business innovation performance. This is characterized by a proposition built from goal-oriented interaction, sharing knowledge, and proactive co-production. According to Witell et al. (2011), two co-creation concepts are constructed from "value in use" the first is usage values, which are those that are able to be barely developed and assessed using in the ingestion progress. The second value is related to "co-design," which is associated to afford knowledge, develop meaning, or subsidize product and service growth. As a function of co-creation in "use" or "for others," an integrated consumer experience, and the customer as "something endogenous" are considered (Lusch et al., 2007).

Previous studies have analyzed some of the reasons associated with one's decision to become an entrepreneur. Altinay et al. (2021) stated that the experience of nascent entrepreneurs such as high emotionality has positive implications on creative behaviour. Other implications such as self-realization, financial success, role, innovation, recognition, and self-reliance are some of the reasons for entrepreneurship (Carter et al., 2002). Furthermore, a nascent entrepreneur with less than 5 years of experience teaches an understandable recurring pattern, which becomes the process of entrepreneurial motivation to pursue and exploit perceived opportunities (Hechavarria, 2012; Neneh, 2022; To et al., 2020; Urban, 2020). The increase in the speed of innovation and operational performance is supported by the quality of knowledge to share (Doğan, 2020; Fauji & Utami, 2013; Wang et al., 2014). Therefore, recent entrepreneurial experience and the quality of knowledge resonance are expected to have an effect on the business innovation results.

This research utilized the SD Logic paradigm model to evaluate the role of recent entrepreneur experiences and the quality of knowledge resonance to the performance of business innovation. However, despite the inconsistencies in previous research, the entrepreneurial experience has a positive impact on the proactiveness of nascent entrepreneurs (Douglas, 2013; Farzana, 2018; Zhao & Smallbone, 2019). Experience participation in addition to learning resources also shows an affirmative role in the elaboration of business innovation production competencies (Berger & Myhrer, 2012; Watson & McGowan, 2019). According to other studies, developing a product with a client does not affect creativity, while collaborating with rivals has a negative influence. According to surveys of automotive manufacturing firms, external integration has a greater product effect on innovation than internal integration (Wong et al., 2013).

A study on the role of personalizing or resonancing of the quality of knowledge in Taiwan and China carried out by Shang et al. (2017), showed that extensive knowledge interaction is the greatest essential driver for building improvement capabilities. According to Wang and Wang (2012), information has a more significant effect on the swiftness of novelty. Meanwhile, Ramírez and García-Peñalvo (2018) stated that quality knowledge has a substantial element in understanding context and collaboration practices for business innovation performance. In line with this study Ganguly et al. (2019) stated that the ability to communicate tacit knowledge and reliability are both intimately connected to innovation capabilities. From these inconsistencies, the quality of knowledge resonance required to improve the performance of business innovation needs the nature of volunteerism for the creation of shared value. This raises three critical questions that need further exploration.

Firstly, how can the experience of nascent entrepreneurs improve business innovation performance? Secondly, how can the resonance of knowledge quality improve business innovation performance? Thirdly, what is the role of voluntary to explore co-creation that has the potential to close the findings of previous research gaps to improve business innovation performance? Therefore, this research, which is rooted in Service Dominant Logic (SDL) paradigm, tries to fill this gap by developing a new conceptual model: voluntary to explore co-creation. This is the first literature to address the context of nascent entrepreneurs.

SD Logic is a thinking paradigm that tries to answer some of the weaknesses of the GD Logic paradigm. Adoption for problem-solving is rooted in the research carried out by Vargo and Lusch (2017), which stated that marketing practices need to be reasoned in the logic of the service. Organizations, economies, and societies are primarily concerned with the sharing of competency application resources, in accordance with the SD Logic (knowledge and skills). The value-added contained in GD logic changes the concept from co-production to the co-creation of value (Lusch & Vargo, 2006). This means that the experience of nascent entrepreneurs and the quality of knowledge resonance can be improved while volunteerism explores the creation of shared value to optimize the performance of business innovation. The main purpose of this research is to explore recent entrepreneur experiences using variables formed on models based on the SD Logic paradigm. Testing of the research model was conducted on small and medium enterprises established in Java from 2016 to 2020, which is about 5 years ago. The variety of the study object is constructed by considering the experience of recent entrepreneurs in the Java region, which has characteristics of cultural descent and knowledge from different entrepreneurs in the nation's capital. It is hoped that volunteering through joint creation togethers the performance of business innovation to have a competitive advantage.

1. Literature review and hypothesis development

This research, which is rooted in the SDL paradigm, comprises of three relevant axioms, namely the 4, 6, and 10. The first axiom indicates that operant resources are the main source of competitive advantage, used to structure value to be successful for the operant resources to become a competitive advantage (Vargo & Lusch, 2004). The second axiom is a co-creator of value, with emphasis on a continuous process, which always involves consumers in the marketing, consumption, value creation, and delivery processes (Vargo & Lusch, 2004). The third axiom value is always unique and determined by the recipient phenomenologically. This logic emphasizes the role of customers in value creation, which are unique and intended to describe the nature of the experience of the value obtained by the recipient (Vargo & Lusch, 2008).

1.1. Voluntary to co-creation in the framework of Service Dominant Logic (SDL)

The creation of shared value is a transformation of the marketing approach that is always interesting to review. The voluntary co-creation is a proposition conceptual development from goods-dominant logic to service-dominant logic (Lusch & Vargo, 2006; Vargo & Lusch, 2017). Services in the first premise are associated with the use of one's competence (knowledge and skills) for the benefit of others, which is the basis of the exchange (Vargo & Lusch, 2004). Therefore, experience and knowledge are two operant resources, associated with mental and physical skills.

The second axiom in the sixth premise emphasizes that the customer has always been a value co-creator. Value is created by dual actors that provide relational benefits through direct or indirect interaction from various parties. In a good-dominant view, manufacturers and consumers are viewed separately. The third is the selection of the fourth axiom in the premise of the ten values, which is uniquely created and phenomenologically derived and determined through the application of the market offering based on a specific perspective or context, such as time, place, and social arrangement (Vargo & Akaka, 2012). Phenomenological here refers to the nature of the experience of value (Vargo & Lusch, 2008). Value is experiential by anyone involved in the market or the occurrence of the exchange process and dependent on the strategies used to express their experience, which differs from each other. Therefore, value is also uniquely experienced and determined by an actor.

1.2. Nascent entrepreneur experience and voluntary to explore co-creation

A nascent entrepreneur is expressed as a person or team new to a business (Carter & Han, 2015). The process associated with starting a new business is closely related to experience, social networking, and contact with other entrepreneurs. Customers significantly contribute to value creation not only from the employee side that makes the product, rather in all aesthetics associated with the transformation of the product (Elias et al., 2018). By exchanging ideas with consumers, nascent entrepreneurs tend to combine existing resources from technology, finance, networking, and markets, which essentially complement each other (De Silva & Wright, 2019). This highlights the significance of nascent entrepreneurs with the ability to engage with other entrepreneurs and their consumers to generate shared value and increase the number of goods sold in the market (Li & Dutta, 2018). This led to the following hypothesis:

H1: Nascent entrepreneur experience has a positive influence on voluntary to explore co-creation.

1.3. Knowledge quality resonance and voluntary to explore co-creation

The desire to echo knowledge triggers the creation of shared value. When discussing with customers a manufacturer is drawn to the need that is analyzed and realized in the form of products or services used by customers to acquire information on products and related marketers (Gohary & Hamzelu, 2016). Awareness is a significant indicator of business decision-making when information is transferred and obtained by customers through stakeholders, and in accordance with the company's philosophy (Acharya et al., 2018). The exchange of ideas produces a useful concept and improves the function of a community, thereby fostering an atmosphere of shared creation (Zhang et al., 2019). This led to the following hypothesis:

H2: Knowledge quality resonance has a positive influence on voluntary to explore co-creation.

1.4. Nascent entrepreneur experience and innovation business performance

Nascent entrepreneurs need to possess the ability to identify business opportunities early in their careers. This is because those with adequate resources are unable to quickly compete and solidify the intention to run their business without early identification of opportunities (Cho & Lee, 2018). Previous findings have found that a company's performance becomes good after numerous experiences (Altaf et al., 2019). A common problem experienced by new entrepreneurs is related to finance, where banks desist from lending money to those with an inadequate track record in the business world (Hwang et al., 2019). This is thought to make sense because the performance of business innovation is good when supported by financial resources. This is in line with the research carried out by Honig and Samuelsson (2012), which found that the improvement of mature performance optimization is supported by sufficient capital planning. This led to the following hypothesis:

H3: Nascent entrepreneur experience has a positive influence on innovation business performance.

1.5. Knowledge quality resonance and innovation business performance

According to Castro-Casal et al. (2013) and Kogut and Zander (1993), the unique value of properties is the complexity of high-quality information, which is the root of imitable existence. Companies with awareness controlling skills force procedure more resources and cost-effectively, therefore, they resolve to be more advanced (Darroch, 2005). Knowledge sharing is input to innovation due to the company's specific characteristics, social complexity, and direction-dependent (Brachos et al., 2007; Chang & Lee, 2008; Chiang & Hung, 2010; Gächter et al., 2010). Explicit knowledge-sharing assists invention and implementation. Clear and direct information involvement has a greater impact on innovation speed and efficiency, while discrete knowledge sharing has a beneficial impact on innovation quality and the company's organizational effectiveness (Wang & Wang, 2012).

Koput (1997) expressed differing opinions on the control of quality knowledge on innovation by stating that high-quality knowledge from fields that do not overlap and negatively impact the creation of innovation due to allocation issues. Han et al. (2018) reported that the superior attribute of overlapping acquaintance positively marks novelty implementation. Conversely, higher-quality expertise that does not overlap, leads to high combination charges suitable to a scarcity of absorption and a negative effect on innovation success. The research hypothesis is that information quality resonance has a significant impact on innovation business success, grounded on the above exposure.

H4: Knowledge quality resonance has a positive influence on innovation business performance.

1.6. Voluntary to explore co-creation on innovation business performance

Retailers use consumer co-creation techniques to develop new goods or services based on a combination of direct customer suggestions (Khanagha et al., 2017). Khanagha et al. (2017) further stated that customer co-creation strategies are a source of creativity and a competitive advantage for a company. Customers' willingness to engage in co-creation reflects the strength of simpler and more predictive intentions to implement new technology-based services, in accordance with the research carried out by Heidenreich and Handrich (2015). Customers benefit from consistent value creation to achieve targeted, long-term success through cost savings or productivity gains (Lacoste, 2016). Furthermore, an ongoing integrated positioning-based initiative of boosting brand image and identity, and also some programs to generate interest and acquire new ideas for innovation, need to be carried out due to their numerous benefits to organizations (Scandelius & Cohen, 2016). Based on the above explanation, the proposed research hypothesis is voluntary explore co-creation, which has a significant effect on innovation business performance.

H5: Voluntary to explore co-creation has a positive influence on innovation business performance.

1.7. Mediating effect of voluntary to explore co-creation on nascent entrepreneur experience – innovation business performance

A nascent entrepreneur is an individual or group that newly establishes a business. They gather the required resources for the business, such as creating a social network (Carter & Han, 2015). Relatively minimal aspects of knowledge and experience are needed to demand stronger

efforts for budding entrepreneurs in their business innovation efforts. Therefore, business owners need to consider value creation collaboration because it has a positive relationship between value creation collaboration to product innovation (Hamidi & Shams Gharneh, 2017; Mulyana & Sutapa, 2016). Furthermore, it is positively related to entrepreneurial orientation and product innovation (Helia et al., 2015; Madhoushi et al., 2011; Najmi & Abror, 2019; Song et al., 2019). Innovative new entrepreneurs are defined as entrepreneurial activities that introduce new knowledge-based products or services (Audretsch et al., 2012).

Collaboration on better value creation influences product innovation. Customers play an important role in contributing to the creation of products on the employee side and during the transformation process (Elias et al., 2018). Khanagha et al. (2017) stated that customer co-creation strategies are a source of innovation and competitive advantage of an organization. Therefore, based on exposure, it is explained that the research hypothesis experienced by nascent entrepreneurs has a significant impact on innovation business performance mediated by voluntary to explore co-creation.

H6: Nascent Entrepreneur Experience has a significant effect on innovation business performance mediated by voluntary to explore co-creation.

1.8. Mediating effect of voluntary to explore co-creation on knowledge quality resonance – innovation business performance

The quality of knowledge is an asset or resource that is important to companies. The density of high-quality information is the core of imitable nature and it is the specificity of assets (Castro-Casal et al., 2013; Kogut & Zander, 1993). The higher the quality of knowledge, the more composite it is entrenched in the pool of corporate knowledge, such as human, tasks, tools, and networks (Argote & Ingram, 2000; Argote & Miron-Spektor, 2011). Businesses fail to connect with and encourage their customer organizations to participate in value-building processes and information sharing (Archer-Brown & Kietzmann, 2018; O'Hern & Rindfleisch, 2010). Consumer groups of individualization, empowerment, and enlargement intentions are common influences on the readiness to allocate data that leads to appreciating shared creations (Bhatti et al., 2020).

The performance of business innovation is not only influenced by the quality of knowledge, rather the co-creation efforts, which develop an essential function. Khanagha et al. (2017) stated that co-creation strategies with customers are a source of innovation and the competitive advantage of an organization. According to Scandelius and Cohen (2016) organizations have the ability to enjoy the benefits of an ongoing shared value creation program from improving image, corporate identity, and providing stimulus programs to acquire innovative ideas. There are several research gap related to the quality of knowledge and business performance, associated with the company's reluctance to share new knowledge, with the need to boost the low technical priorities (Ahn et al., 2006). The existing desire to learn, progress, achieve, create and transfer knowledge to each other is needed for innovation. Voluntary concept to explore co-creation can be used to mediate potential gap in knowledge quality resonance on business innovation performance. The concept of volunteerism has an impact on increasing value and innovation in organizations to provide market-based solutions (Enache & Hussainey, 2020; Kotchen, 2013; Shin & Alam, 2022).

H7: Knowledge quality resonance has a significant effect on innovation business performance mediated by voluntary to explore co-creation.

2. Research method

2.1. Data collection samples and techniques

Data were collected from owners or managers of small and medium-sized micro enterprises (MSMEs) selected from companies in Java Island, Indonesia. A total of 263 MSMEs voluntarily participated in this study, and among them are represented by the owners or managers through questionnaires distributed online using Google-form. The questionnaires were designed using a closed statement with a Likert scale 5-point. These MSMEs are engaged in multisectoral production of goods, services, and retail, including creative industries, culinary, services, clothing, trade, etc. The profiles of the selected respondents presented in Table 1 shows an arranged informal meeting with the owner or manager of the MSME. Furthermore, a structured interview assisted by the distribution of online questionnaire to prospective respondent was used to determine the variables in the research model. Since this research model is related to nascent entrepreneurship, of the 263 businesses managers who filled out the questionnaire, only 232 included novice entrepreneurs with businesses ranging from 1–5 years were selected as respondents.

Table 1. Profile of Respondents of MSME's (source: Data processed, 2021)

No.	Characteristics		Frequency	%
1.	Gender	Male	134	42.1
		Female	98	57.9
2.	Age	Less than 20 years	69	29.7
		> 20–30 years	103	44.4
		> 30–40 years	34	14.7
		> 40–50 years	16	7.1
		>50 years	10	4.1
3.	Education	Junior High School	10	4.2
		High School	138	59.4
		Bachelor Degree	32	13.9
		Master Degree	38	16.2
		Doctoral Degree	15	6.4

End of Table 1

No.	Characteristics		Frequency	%
4.	Revenue / month	Less than Rp 10 Million	180	77.8
		More than Rp 10–25 Million	27	11.7
		More than Rp 25–100 Million	22	9.4
		More than Rp 100–200 Million	2	0.8
		More than Rp 200 Million	1	0.4

2.2. Measurement of validity and reliability

This research used the structural equations – SEM techniques with the help of AMOS 24 software to test hypotheses. According to Tabachnick and Fidell (2012), SEM has the ability to test both direct effects and mediation simultaneously. From the data of 232 respondents, before answering the hypothesis the authors analyzed the overall model to observe the validity and reliability of the research data through measurements of the validity and reliability of the instrument. The validity and reliability measurement results are shown in Table 2, while the proposed hypothesis test, is in Table 3.

Table 2 shows that all variables have a positive factor loading value with a critical ratio ≥ of 2.0, which is significant and reflects its latent variables. All variables are measured and reflected by the adequate regression weight of the positive value of loading factors with a critical ratio of ≥ 2.0 (Arbuckle, 2016) thereby indicating the well-received of these indicators from all related variables.

Furthermore, convergent validity testing of each indicator used for its latent variable, shows that the average loading factor value is more than the acceptable threshold of 0.70, where convergent validity is confirmed. Meanwhile, the value of the Average Variance Extracted (AVE) latent variable is also proven to be appropriate with an average above 0.50, which indicates the validity and acceptance of the instruments used in this study. All latent variables used have good reliability as seen from the Construct Reliability Index (CRI) above 0.70; and Cronbach's Alpha (CA) is more than 0.70. This is because the validity and reliability of the data instrument met the required limit values, hence the authors proceeded to the hypothesis testing process.

This study proposes the ability of the Voluntary to Explore Co-creation variable to contribute to bridging problems in the company's efforts to improve business innovation performance. The indicators include competitive achievement to identify knowledge as essential in generating new innovative ideas (Urbancova, 2013). Early entrepreneurs now continue to strive to demonstrate self-awareness and growth using the information obtained (Deamer & Earle, 2004). The resonance values that foster innovation strategies result in changes in team interactions, thereby creating new spaces for innovation (Rill, 2016). The creation of shared value is conducted by implementing knowledge management strategies involving humans and learning technology to increase knowledge's impact on companies' economic performance (Caputo et al., 2019). Product-service system co-design is a powerful tool for learning about consumer needs through the relationship between competitive strategy, business model, and customization strategy (Gembarski & Lachmayer, 2017). Sensing and experience are used as initial cues to describe the outcome of a customer's co-creation experience in a realistic co-creation setting (Hussain et al., 2021).

Table 2. Measurement of validity and reliability (source: Data processed, 2021)

Variable	Dimension/ Indicator	Loading Factor	Critical Ratio
Nascent Entrepreneur Experience (X1) AVE = 0.528 CRI = 0.817 **CA = 0.701**	Price leadership	0.762	8.179
	Product specialization	0.749	8.248
	Market-based background	0.728	8.248
Knowledge Quality Resonance (X2) AVE = 0.551 CRI = 0.860 **CA = 0.796**	References sources update	0.795	11.191
	Ambidextrity IT	0.696	8.953
	Open mind to evaluate	0.702	10.085
	Dynamic motivation knowledge	0.743	9.081
	Aggressivity to upgrade competence	0.770	9.081
Voluntary to Explore co-Creation (Z) AVE = 0.536 CRI = 0.874 **CA = 0.831**	Competitive achievement	0.755	9.094
	Desire to move forward	0.767	9.177
	Value resonance	0.755	8.612
	Knowledge & learning	0.721	8.674
	Co-design	0.754	8.533
	Sensing & experiencing	0.631	8.533
Innovation Business Performance (Y) AVE = 0.600 CRI = 0.882 **CA = 0.826**	Continuous new product	0.704	8.287
	Create new target market	0.857	10.060
	Market size and profits	0.834	9.825
	Marketing & Financial growth	0.792	9.825

**Notes:* AVE = Average Variance Extracted; CRI = Construct Reliability Index; CA = Cronbach's Alpha.

3. Hypothesis testing

A structural equation model with the help of AMOS 24 software was used to test the model and all related hypotheses, as shown in Figure 1. Based on a two-step testing

Table 3. Hypothesis testing and goodness of fit result (source: Data processed, 2021)

Hypothesis variable		Estimate	C.R	P-value	Conclusion
H1	Nascent Entrepreneur Experience (X1) → Voluntary to Explore co-creation (Z1)	0.323	3.109	***	Supported
H2	Knowledge Quality Resonance (X2) → Voluntary to Explore co-creation (Z)	0.544	5.553	***	Supported
H3	Nascent Entrepreneur Experience (X1) → Innovation Business Performance (Y)	–0.060	0.488	0.626	Not Supported
H4	Knowledge Quality Resonance (X2) → Innovation Business Performance (Y)	0.285	2.137	0.034	Supported
H5	Voluntary to Explore co-creation (Z) → Innovation Business Performance (Y)	0.584	4.432	***	Supported
H6	Nascent Entrepreneur Experience (X1) → Voluntary to Explore co-creation (Z) → Innovation Business Performance (Y)	0.189	2.503	0.013	Supported
H7	Knowledge Quality Resonance (X2) → Voluntary to Explore co-creation (Z) → Innovation Business Performance (Y)	0.318	3.430	***	Supported

Basic & Absolute of fit test		Result	Cut-off	Conclusion
χ^2 (Prob.)	Significance of Chi-square	0.00	≥ 0.05	Poor fit
GFI	Goodness of fit index	0.90	≥ 0.90	Good Fit
AGFI	Adjusted goodness of fit index	0.87	≥ 0.90	Marginal Fit
CFI	Comparative fit index	0.95	≥ 0.95	Good Fit
TLI	Tucker lewis index	0.94	≥ 0.90	Good Fit
RMSEA	Root mean square error of approximation	0.05	0.03–0.08	Good Fit

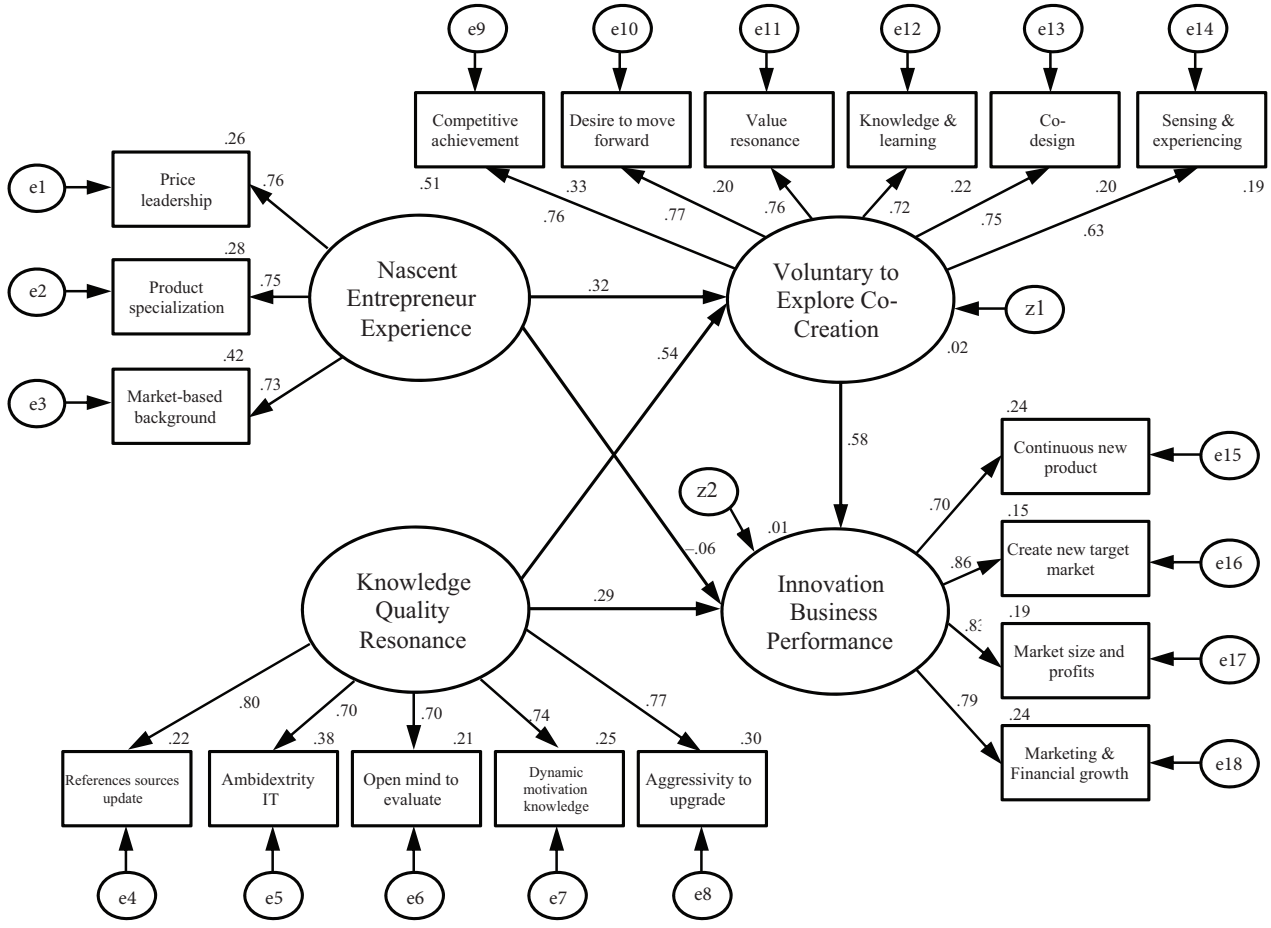

Figure 1. Full structural model – voluntary to explore co-creation

procedure with AMOS 24 software, the following results were obtained.

First, the suitability of the model was tested to produce a good acceptance model as shown in Table 3. Chi-square value obtained with a significance value of 0.000 indicates that the result not in accordance with the expected value of ≥ 0.05. However, GFI (0.901), AGFI (0.873), CFI (0.946), TLI (0.937), and RMSEA (0.054) were all above the cut-off value level, indicating the model is acceptable.

Secondly, the regression hypothesis testing was conducted, either directly or through the mediation effect discussed in the previous section. Table 3 shows that the critical ratio values of all direct influence hypotheses are ≥ 2.0, thereby indicating that the hypothesis is well received, except for the 3rd hypothesis (H3) presented in this study, where the critical ratio value is ≤ 2.0. The effects of mediation on this study were tested using bootstrapping techniques that are present in AMOS Software 24. As a result, a positive and significant effect is obtained, where each critical ratio value is ≥ 2.0, and hypotheses of the proposed mediation effect are properly received.

Discussion and conclusions

This study has examined and proven that all the proposed hypotheses are supported, except the third hypothesis (H3) which is not supported. The results tend to bridge the inconsistencies of previous studies, as well as provide relevant information for MSMEs, related to nascent entrepreneur experience and knowledge quality resonance through voluntary exploration and co-creation to improve the innovation business performance of MSMEs in Java Island. This research is in line with the service-dominant logic paradigm where MSMEs focus on interacting to produce joint creations (Vargo & Lusch, 2004; Amin et al., 2021). These outcomes are in connection with the studies carried out by Khanagha et al. (2017), Heidenreich and Handrich (2015), and Lacoste (2016) that voluntary explore co-creation is a source of market creativity and a competitive advantage. MSME actors and customers willing to participate in the creation together show the power of clearer intentions, especially towards services provided based on technological innovation. This strongly supports the performance of business innovation in the present condition where most have adopted and used technology. MSMEs reap many benefits, create new products, target new markets, and increase market size and profit through the willingness to excel in competition, share knowledge, and learn together.

These three research questions were answered through the acceptance of the proposed hypothesis and the concept of voluntary exploration of the co-creation process. Firstly, the budding entrepreneur experience relationship does not support the nascent in improving business innovation performance. This result is supported by Wong et al. (2013), which stated that developing products with clients does not affect creativity, as opposed to the negative effect associated with rival collaboration. However, this finding is proven by the nature of voluntary to explore co-creation that can bridge the high experience of novice entrepreneurs to improve the performance of business innovation further. Secondly, the higher knowledge quality resonance has been proven to enhance business innovation performance through voluntarily shared value creation (Ramírez & García-Peñalvo, 2018). The logic behind this pathway in the service dominant logic paradigm is that knowledge is an operant resource that creates value and is made successful, making it as the trustworthy source of competitive advantage (Vargo & Lusch, 2004). Thirdly, the voluntary to explore co-creation, which has the six big signs or reflections of a nascent entrepreneur, is proven to hold the potential to improve the performance of value-oriented business innovation.

In conclusion, hypothetical test results comprise theoretical and practical implications. On theoretical implications, we managed a new conceptual model about the volunteerism of nascent entrepreneurs through the SD-Logic paradigm. This study complements the SD-Logic paradigm, especially in the second axiom, which explains the value always formed from co-creation through relational interaction. For MSMEs, the experience of nascent entrepreneurs and the quality of knowledge resonance determine the process used to voluntarily explore co-creation. Performance of business innovation in making goods and services is the process used to forms value in consumers. The voluntary exploration of creating shared value from co-production to co-creation means that something is produced and sold due to the correlation between customers and other partners. Beneficiary engagement, through usage, and integration with other tools is used to gauge volunteerism in value development collaborations. In other words, the higher the volunteerism of mutual value creation, the higher the performance of business innovation. The limitations of knowledge quality resonance and experience of minimal nascent entrepreneurs in terms of resources on the performance of business innovation are mediated when having a voluntary attitude to collaborate and provide value through the use of products in the process of "consumption," or "value-in-use."

Voluntary to explore co-creation is proven to mediate the influence of nascent entrepreneur experience and knowledge quality resonance on innovation business performance. This means that increase competitive achievement, is associate with the desire to move forward, value resonance, knowledge & learning, co-design, and sensing & experiencing for MSMEs to improve the performance of business innovation. The experience of nascent entrepreneurs supports creations together, where MSMEs benefits significantly and often lead to innovation. MSMEs in Java feel the willingness to share is interesting, and this supports the improvement of business innovation performance. Similarly, efforts to increase voluntary to explore co-creation because businesses need to be goal-oriented, totality to move forward, provide meaningful value to the work environment, share knowledge and encourage

consumer involvement in product creation. The quality of knowledge resonance available to each MSME actor stimulates the use of more resources and acquires innovative ideas. This makes MSMEs eager to continue innovating to enhance business performance.

Managerial implication

The implications practically help businesses, especially nascent entrepreneurs in considering factors capable of improving the performance of innovation in competitive advantage. Some of the factors used by business owners and managers in emolument attentiveness are interaction and resource factors. Interaction factors related to how owners and business managers ensure that the work team interacts with various conditions and disorders of the business climate, or mental readiness to face market competition. Resource factors are related to the strategies adopted by the owner to move the resource operand from an intangible asset or resource operant (knowledge and skills) to value creation in the exchange process. When the experience of nascent entrepreneurs is low, the voluntary attitude to explore the creation of shared values is lower. An increase in the quality of knowledge resonance leads to a rise in the attitude of volunteerism to jointly generate value. The voluntary creation of shared value does not only improve the performance of business innovation rather it also can increase the resilience of competitive business continuity. Contributions between owners or management and consumers in providing value for a product or service will encourage creative businesses to grow economically.

Limitation and future research

This research has some limitations both in terms of implementation and discussion. The limitation is the complexity of the data collection process due to the pandemic, which takes more than the predetermined estimates. Meanwhile, in terms of discussion, the authors suspected that there are still some variables capable of mediating developmental value creation or inspiring the interaction. Some of the variables have the ability to be used as moderation turbulence environment, organizational culture, entrepreneurial gender, and digital value resonance. From the limitations of this study, the authors recommended further research for the design of a model of the fourth axiom on foundational premise 10 on the ability to design uniqueness with a phenomenon value.

Acknowledgements

The authors are grateful to all creative businesses and MSME owners that voluntarily participated in filling out the research questionnaire. The authors are also grateful to the Native Proofread Institute and Gorontalo State University for their moral support.

Funding

This study was funded by private organizations.

Author contributions

To the research approach, all writers contribute equally.

Agustinus Moonti is responsible for drafting the first conceptual ideas of the manuscript, data collection, and writing of limitations and future research sections.

Roymon Panjaitan is responsible for writing in the introduction, conclusion, and part writing on the literature review.

Echan Adam is responsible for processing statistical data, methods, discussions, completing manuscripts, and managing online submissions of articles.

Astil Harli Roslan is responsible for the development of the hypothesis, the literature review, and the writing of the managerial implications.

Disclosure statement

The authors stated that there were no competing or conflicting interest in the finalization and publication of this research.

References

Acharya, A., Singh, S. K., Pereira, V., & Singh, P. (2018). Big data, knowledge co-creation and decision making in fashion industry. *International Journal of Information Management*, *42*, 90–101. https://doi.org/10.1016/j.ijinfomgt.2018.06.008

Ahn, J. H., Lee, D. J., & Lee, S. Y. (2006). Balancing business performance and knowledge performance of new product development. Lessons from ITS industry. *Long Range Planning*, *39*(5), 525–542. https://doi.org/10.1016/j.lrp.2006.08.001

Altaf, M., Ul Hameed, W., Nadeem, S., & Shahzad, A. (2019). Successful entrepreneurial process as contributor towards business performance in banking: Moderating role of passion for inventing. *South Asian Journal of Management Sciences*, *13*(1), 13–40. https://doi.org/10.21621/sajms.2019131.02

Altinay, L., Madanoglu, G. K., Kromidha, E., Nurmagambetova, A., & Madanoglu, M. (2021). Mental aspects of cultural intelligence and self-creativity of nascent entrepreneurs: The mediating role of emotionality. *Journal of Business Research*, *131*, 793–802. https://doi.org/10.1016/j.jbusres.2020.10.048

Amin, M., Shamim, A., Ghazali, Z., & Khan, I. (2021). Employee Motivation to Co-Create Value (EMCCV): Construction and validation of scale. *Journal of Retailing and Consumer Services*, *58*, 102334. https://doi.org/10.1016/j.jretconser.2020.102334

Arbuckle, J. L. (2016). *IBM® SPSS® Amos™ user's guide*. Amos Development Corporation.

Archer-Brown, C., & Kietzmann, J. (2018). Strategic knowledge management and enterprise social media. *Journal of Knowledge Management*, *22*(6), 1288–1309. https://doi.org/10.1108/JKM-08-2017-0359

Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, *82*(1), 150–169. https://doi.org/10.1006/obhd.2000.2893

Argote, L., & Miron-Spektor, E. (2011). Organizational learning: From experience to knowledge. *Organization Science*, *22*(5), 1123–1137. https://doi.org/10.1287/orsc.1100.0621

Audretsch, D. B., Bönte, W., & Mahagaonkar, P. (2012). Financial signaling by innovative nascent ventures: The relevance of patents and prototypes. *Research Policy*, *41*(8), 1407–1421. https://doi.org/10.1016/j.respol.2012.02.003

Berger, J., & Myhrer, A. (2012, 8 June). *The effect of business plan competitions on entrepreneurial intention and behavior* [Master Thesis, Norwegian University of Science and Technology]. Trondheim, Norwegian. http://www.diva-portal.org/smash/record.jsf?pid=diva2:626519

Bhatti, W. A., Glowik, M., & Arslan, A. (2020). Knowledge sharing motives and value co-creation behavior of the consumers in physiotherapy services: A cross-cultural study. *Journal of Knowledge Management*, *25*(5), 1128–1145. https://doi.org/10.1108/JKM-04-2020-0273

Brachos, D., Kostopoulos, K., Söderquist, K. E., & Prastacos, G. (2007). Knowledge effectiveness, social context and innovation. *Journal of Knowledge Management*, *11*(5), 31–44. https://doi.org/10.1108/13673270710819780

Brummer, M. (2022). Innovation and threats. *Defence and Peace Economics*, *33*(5), 563–584. https://doi.org/10.1080/10242694.2020.1853984

Buccieri, D., Javalgi, R. G., & Cavusgil, E. (2020). International new venture performance: Role of international entrepreneurial culture, ambidextrous innovation, and dynamic marketing capabilities. *International Business Review*, *29*(2), 101639. https://doi.org/10.1016/j.ibusrev.2019.101639

Buccieri, D., Javalgi, R. G., & Jancenelle, V. E. (2021). Dynamic capabilities and performance of emerging market international new ventures: Does international entrepreneurial culture matter? *International Small Business Journal: Researching Entrepreneurship*, *39*(5), 474–499. https://doi.org/10.1177/0266242620969682

Caputo, F., Garcia-Perez, A., Cillo, V., & Giacosa, E. (2019). A knowledge-based view of people and technology: Directions for a value co-creation-based learning organisation. *Journal of Knowledge Management*, *23*(7), 1314–1334. https://doi.org/10.1108/JKM-10-2018-0645

Carter, N. M., Gartner, W. B., & Greene, P. G. (2002). The career reasons of minority nascent entrepreneurs. *Academy of Management Proceedings*, *2002*(1), D1–D6. https://doi.org/10.5465/apbpp.2002.7516614

Carter, N. M., & Han, J. (2015). Nascent entrepreneur. In *Wiley encyclopedia of management* (pp. 1–4). Wiley. https://doi.org/10.1002/9781118785317.weom030072

Castro-Casal, C., Neira-Fontela, E., & Álvarez-Pérez, M. D. (2013). Human resources retention and knowledge transfer in mergers and acquisitions. *Journal of Management and Organization*, *19*(2), 188–209. https://doi.org/10.1017/jmo.2013.11

Chang, S. C., & Lee, M. S. (2008). The linkage between knowledge accumulation capability and organizational innovation. *Journal of Knowledge Management*, *12*(1), 3–20. https://doi.org/10.1108/13673270810852359

Chiang, Y. H., & Hung, K. P. (2010). Exploring open search strategies and perceived innovation performance from the perspective of inter-organizational knowledge flows. *R and D Management*, *40*(3), 292–299. https://doi.org/10.1111/j.1467-9310.2010.00588.x

Cho, Y. H., & Lee, J.-H. (2018). Entrepreneurial orientation, entrepreneurial education and performance. *Asia Pacific Journal of Innovation and Entrepreneurship*, *12*(2), 124–134. https://doi.org/10.1108/APJIE-05-2018-0028

Chouksey, A., & Karmarkar, Y. (2017). Sustainability of microbusinesses and success of microfinance. *Paradigm*, *21*(1), 91–105. https://doi.org/10.1177/0971890717700527

Darroch, J. (2005). Knowledge management, innovation and firm performance. *Journal of Knowledge Management*, *9*(3), 101–115. https://doi.org/10.1108/13673270510602809

De Silva, M., & Wright, M. (2019). Entrepreneurial co-creation: Societal impact through open innovation. *R and D Management*, *49*(3), 318–342. https://doi.org/10.1111/radm.12362

Deamer, I., & Earle, L. (2004). Searching for entrepreneurship. *Industrial and Commercial Training*, *36*(3), 99–103. https://doi.org/10.1108/00197850410532096

Denning, S. (2014). Identifying the new opportunities and threats in the creative economy. *Strategy and Leadership*, *42*(6), 3–9. https://doi.org/10.1108/SL-10-2014-0075

Devece, C., Peris-Ortiz, M., & Rueda-Armengot, C. (2016). Entrepreneurship during economic crisis: Success factors and paths to failure. *Journal of Business Research*, *69*(11), 5366–5370. https://doi.org/10.1016/j.jbusres.2016.04.139

Doğan, M. (2020). Knowledge sharing, innovation and firm performance: Evidence from Turkey. *Financial and Monetary Research, Bucharest*, *24*(1), 36–52. http://fs.icfm.ro/FS1.2020.Paper03.pdf

Douglas, E. (2013). Intrapreneurial intentions versus entrepreneurial intentions: Distinct constructs with different antecedents. *Small Business Economics*, *41*(1), 115–132. https://doi.org/10.1007/s11187-012-9419-y

Elias, S. R. S. T. A., Chiles, T. H., Duncan, C. M., & Vultee, D. M. (2018). The aesthetics of entrepreneurship: How arts entrepreneurs and their customers co-create aesthetic value. *Organization Studies*, *39*(2–3), 345–372. https://doi.org/10.1177/0170840617717548

Enache, L., & Hussainey, K. (2020). The substitutive relation between voluntary disclosure and corporate governance in their effects on firm performance. *Review of Quantitative Finance and Accounting*, *54*(2), 413–445. https://doi.org/10.1007/s11156-019-00794-8

Fairlie, R. W. (2013). Immigrant entrepreneurs and small business owners, and their access to financial capital. *Topics in Entrepreneurship: Select Research*, *May*, 33–74.

Farzana, R. (2018). The impact of motivational factors towards entrepreneurial intention. *Journal of Modern Accounting and Auditing*, *14*(12), 639–647. https://doi.org/10.17265/1548-6583/2018.12.001

Fauji, F., & Utami, M. M. (2013). How intellectual stimulation effects knowledge sharing, innovation and firm performance. *International Journal of Social Science and Humanity*, *3*(4), 420–425. https://doi.org/10.7763/IJSSH.2013.V3.274

Gächter, S., von Krogh, G., & Haefliger, S. (2010). Initiating private-collective innovation: The fragility of knowledge sharing. *Research Policy*, *39*(7), 893–906. https://doi.org/10.1016/j.respol.2010.04.010

Ganguly, A., Talukdar, A., & Chatterjee, D. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organization. *Journal of Knowledge Management*, *23*(6), 1105–1135. https://doi.org/10.1108/JKM-03-2018-0190

Gembarski, P. C., & Lachmayer, R. (2017). Designing customer co-creation: Business models and co-design activities. *International Journal of Industrial Engineering and Management*, *8*(3), 121–130.

Gohary, A., & Hamzelu, B. (2016). Modeling customer knowledge management to make value co-creation. *Business Information Review*, *33*(1), 19–27. https://doi.org/10.1177/0266382116631850

Hamidi, F., & Shams Gharneh, N. (2017). Impact of co-creation on innovation capability and firm performance: A structural equation modeling. *AD-Minister*, *30*, 73–90. https://doi.org/10.17230/ad-minister.30.4

Han, J., Jo, G. S., & Kang, J. (2018). Is high-quality knowledge always beneficial? Knowledge overlap and innovation performance in technological mergers and acquisitions. *Journal of Management and Organization*, *24*(2), 258–278. https://doi.org/10.1017/jmo.2016.35

Haney, A. B. (2017). Threat interpretation and innovation in the context of climate change: An ethical perspective. *Journal of Business Ethics*, *143*(2), 261–276. https://doi.org/10.1007/s10551-015-2591-7

Hechavarria, D. (2012). The nascent entrepreneurship hub: Goals, entrepreneurial self-efficacy and start-up outcomes. *Small Business Economics*, *39*(3), 685–701. https://doi.org/10.1007/s11187-011-9355-2

Heidenreich, S., & Handrich, M. (2015). Adoption of technology-based services: The role of customers' willingness to co-create. *Journal of Service Management*, *26*(1), 44–71. https://doi.org/10.1108/JOSM-03-2014-0079

Helia, R., Farida, N., & Prabawani, B. (2015). Pengaruh Orientasi Pasar dan Orientasi Kewirausahaan Terhadap Keunggulan Bersaing Melalui Inovasi Produk sebagai Variabel Antara (Studi Kasus pada IKM Batik di Kampung Batik Laweyan, Solo). *Jurnal Ilmu Administrasi Bisnis*, *4*(4), 281–290.

Honig, B., & Samuelsson, M. (2012). Planning and the entrepreneur: A longitudinal examination of nascent entrepreneurs in Sweden. *Journal of Small Business Management*, *50*(3), 365–388. https://doi.org/10.1111/j.1540-627X.2012.00357.x

Hu, X., Zhu, L., & Zhang, H. (2017). Entrepreneurial marketing and new venture performance: The mediating effects of ambidextrous innovation. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, *21*(6), 1073–1078. https://doi.org/10.20965/jaciii.2017.p1073

Hussain, K., Jing, F., Junaid, M., Zaman, Q. U., & Shi, H. (2021). The role of co-creation experience in engaging customers with service brands. *Journal of Product and Brand Management*, *30*(1), 12–27. https://doi.org/10.1108/JPBM-08-2019-2537

Hwang, V., Sameeksha, D., & Baird, R. (2019). *Access to capital for entrepreneurs: Removing barriers*. Ewinc Marion Kauffman Foundation.

Jensen, F., Lööf, H., & Stephan, A. (2020). New ventures in Cleantech: Opportunities, capabilities and innovation outcomes. *Business Strategy and the Environment*, *29*(3), 902–917. https://doi.org/10.1002/bse.2406

Khanagha, S., Volberda, H., & Oshri, I. (2017). Customer co-creation and exploration of emerging technologies: The mediating role of managerial attention and initiatives. *Long Range Planning*, *50*(2), 221–242. https://doi.org/10.1016/j.lrp.2015.12.019

Kogut, B., & Zander, U. (1993). Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, *24*(4), 625–645. https://doi.org/10.1057/palgrave.jibs.8490248

Koput, K. W. (1997). A chaotic model of innovative search: Some answers, many questions. *Organization Science*, *8*(5), 528–542. https://doi.org/10.1287/orsc.8.5.528

Kotchen, M. J. (2013). Voluntary-and information-based approaches to environmental management: A public economics perspective. *Review of Environmental Economics and Policy*, *7*(2), 276–295. https://doi.org/10.1093/reep/ret012

Lacoste, S. (2016). Perspectives on social media ant its use by key account managers. *Industrial Marketing Management*, *54*, 33–43. https://doi.org/10.1016/j.indmarman.2015.12.010

Lee, W., & Black, S. L. (2017). Small business development: Immigrants' access to loan capital. *Journal of Small Business and Entrepreneurship*, *29*(3), 193–209. https://doi.org/10.1080/08276331.2017.1297106

Li, J., & Dutta, D. K. (2018). Founding team experience, industry context, and new venture creation. *New England Journal of Entrepreneurship*, *21*(1), 2–21. https://doi.org/10.1108/NEJE-04-2018-0008

Lusch, R. F. (2007). Marketing's evolving identity: Defining our future. *Journal of Public Policy and Marketing*, *26*(2), 261–268. https://doi.org/10.1509/jppm.26.2.261

Lusch, R. F., & Vargo, S. L. (2006). Service-dominant logic: Reactions, reflections and refinements. *Marketing Theory*, *6*(3), 281–288. https://doi.org/10.1177/1470593106066781

Lusch, R. F., Vargo, S. L., & O'Brien, M. (2007). Competing through service: Insights from service-dominant logic. *Journal of Retailing*, *83*(1), 5–18. https://doi.org/10.1016/j.jretai.2006.10.002

Madhoushi, M., Sadati, A., Delavari, H., Mihdivand, M., & Mihandost, R. (2011). Entrepreneurial orientation and innovation performance: The mediating role of knowledge management. *Asian Journal of Business Management*, *3*(4), 310–316.

Mulyana & Sutapa. (2016). Dampak Collaborative Networks Pada Peningkatan Kinerja Industri Kreatif. *Prosiding Seminar Nasional Multi Disiplin Ilmu & Call For Papers Unisbank (Sendi_U)*, 778–785.

Najmi, & Abror. (2019). The effect of entrepreneurial orientation, market orientation, business network ability and product innovation on performance (Study in small and micro enterprises of food in Padang). *Growth*, *400*(4.205), 250–398. https://doi.org/10.2991/piceeba-19.2019.68

Neneh, B. N. (2022). Entrepreneurial passion and entrepreneurial intention: The role of social support and entrepreneurial self-efficacy. *Studies in Higher Education*, *47*(3), 587–603. https://doi.org/10.1080/03075079.2020.1770716

O'Hern, M. S., & Rindfleisch, A. (2010). Customer co-creation: A typology and research agenda. *Review of Marketing Research*, *6*(1), 84–106. https://doi.org/10.1108/S1548-6435(2009)0000006008

Ramírez, M. S., & García-Peñalvo, F. J. (2018). Co-creation and open innovation: Systematic literature review. *Comunicar*, *26*(54), 9–18. https://doi.org/10.3916/C54-2018-01

Rill, B. (2016). Resonant co-creation as an approach to strategic innovation. *Journal of Organizational Change Management*, *29*(7), 1135–1152. https://doi.org/10.1108/JOCM-01-2015-0009

Sawyer, T. Y., & Dalgleish, D. (2015). *Financial modeling for business owners and entrepreneurs: Developing excel models to raise capital, increase cash flow, improve operations, plan projects, and make decisions*. Springer.

Scandelius, C., & Cohen, G. (2016). Sustainability program brands: Platforms for collaboration and co-creation. *Industrial Marketing Management*, *57*, 166–176. https://doi.org/10.1016/j.indmarman.2016.02.001

Shang, S. S. C., Yao, C. Y., & Liou, D. M. (2017). The effects of knowledge interaction for business innovation. *R and D Management*, *47*(3), 337–351. https://doi.org/10.1111/radm.12130

Sheikh, S. (2017). Threat of termination and firm innovation. *Annals of Finance*, *13*(1), 75–95. https://doi.org/10.1007/s10436-016-0290-8

Shin, D., & Alam, M. S. (2022). Lean management strategy and innovation: Moderation effects of collective voluntary turnover and layoffs. *Total Quality Management and Business Excellence*, *33*(1–2), 202–217. https://doi.org/10.1080/14783363.2020.1826923

Sijabat, E. A. S., Nimran, U., Utami, H. N., & Prasetya, A. (2021). The effects of dynamic capabilities, entrepreneurial creativity and ambidextrous innovation on firm's competitiveness. *Journal of Asian Finance, Economics and Business*, *8*(1), 711–721.

Song, W., Ma, X., & Yu, H. (2019). Entrepreneurial orientation, interaction orientation, and innovation performance: A model of moderated mediation. *SAGE Open*, *9*(4), 1–13. https://doi.org/10.1177/2158244019885143

Strelkova, I. A. (2018). Digital economy: New opportunities and threats for the development of the world economy. *Economics, Taxes & Law*, *11*(2), 18–26. https://doi.org/10.26794/1999-849X-2018-11-2-18-26

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Pearson.

To, C. K. M., Guaita Martínez, J. M., Orero-Blat, M., & Chau, K. P. (2020). Predicting motivational outcomes in social entrepreneurship: Roles of entrepreneurial self-efficacy and situational fit. *Journal of Business Research*, *121*, 209–222. https://doi.org/10.1016/j.jbusres.2020.08.022

Urban, B. (2020). Entrepreneurial alertness, self-efficacy and social entrepreneurship intentions. *Journal of Small Business and Enterprise Development*, *27*(3), 489–507. https://doi.org/10.1108/JSBED-08-2019-0285

Urbancova, H. (2013). Competitive advantage achievement through innovation and knowledge. *Journal of Competitiveness*, *5*(1), 82–96. https://doi.org/10.7441/joc.2013.01.06

Vargo, S. L., & Akaka, M. A. (2012). Value cocreation and service systems (re)formation: A service ecosystems view. *Service Science*, *4*(3), 207–217. https://doi.org/10.1287/serv.1120.0019

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, *68*(1), 1–17. https://doi.org/10.1509/jmkg.68.1.1.24036

Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: Continuing the evolution. *Journal of the Academy of Marketing Science*, *36*(1), 1–10. https://doi.org/10.1007/s11747-007-0069-6

Vargo, S. L., & Lusch, R. F. (2017). Service-dominant logic 2025 evidence based research. *International Journal of Research in Marketing*, *34*(1), 46–67. https://doi.org/10.1016/j.ijresmar.2016.11.001

Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, *39*(10), 8899–8908. https://doi.org/10.1016/j.eswa.2012.02.017

Wang, Z., Wang, N., & Liang, H. (2014). Knowledge sharing, intellectual capital and firm performance. *Management Decision*, *52*(2), 230–258. https://doi.org/10.1108/MD-02-2013-0064

Watson, K., & McGowan, P. (2019). Emergent perspectives toward the business plan among nascent entrepreneur start-up competition participants. *Journal of Small Business and Enterprise Development*, *26*(3), 421–440. https://doi.org/10.1108/JSBED-02-2018-0038

Wedy, G., & Pimentel, C. (2021). Climate change and innovation in Brazil – threats and opportunities. *SSRN Electronic Journal*, 1–21. https://doi.org/10.2139/ssrn.3783547

Witell, L., Kristensson, P., Gustafsson, A., & Löfgren, M. (2011). Idea generation: Customer co-creation versus traditional market research techniques. *Journal of Service Management, 22*(2), 140–159. https://doi.org/10.1108/09564231111124190

Wong, C. W. Y., Wong, C. Y., & Boon-Itt, S. (2013). The combined effects of internal and external supply chain integration on product innovation. *International Journal of Production Economics*, *146*(2), 566–574. https://doi.org/10.1016/j.ijpe.2013.08.004

Yachin, J. M. (2019). The entrepreneur–opportunity nexus: Discovering the forces that promote product innovations in rural micro-tourism firms. *Scandinavian Journal of Hospitality and Tourism*, *19*(1), 47–65. https://doi.org/10.1080/15022250.2017.1383936

Yu, D., Wang, J., Meng, Z., & Zhao, S. (2020). Research on the influence of entrepreneurs' creative thinking and optimism degree on innovation opportunity identification. In *Proceedings of the 4th International Symposium on Business Corporation and Development in South-East and South Asia under B&R Initiative (ISBCD 2019)*, *146*, 163–168. https://doi.org/10.2991/aebmr.k.200708.032

Zhang, Y., Zhang, M., Luo, N., Wang, Y., & Niu, T. (2019). Understanding the formation mechanism of high-quality knowledge in social question and answer communities: A knowledge co-creation perspective. *International Journal of Information Management*, *48*(2019), 72–84. https://doi.org/10.1016/j.ijinfomgt.2019.01.022

Zhao, D., & Smallbone, D. (2019). What affects nascent entrepreneurs' proactiveness. *Asia Pacific Management Review*, *24*(4), 318–326. https://doi.org/10.1016/j.apmrv.2018.12.001