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NEW REALITIES:

A LITERATURE REVIEW AND REALITY OF INNOVATION PRACTICES AND SUSTAINABLE COMPETITIVE ADVANTAGE OF YOUNG FIRMS IN VIETNAM

NUEVAS REALIDADES: UNA REVISIÓN DE LA LITERATURA Y LA REALIDAD EN LAS PRÁCTICAS DE INNOVACIÓN Y LA VENTAJA COMPETITIVA SOSTENIBLE DE LAS EMPRESAS JÓVENES EN VIETNAM

Uyen, Nguyen Thi[1]
E-mail: uyennguyen@tmu.edu.vn
ORCID: https://orcid.org/0000-0002-2942-8137
Manh, Hoang Van[1]
E-mail: hoangmanh@tmu.edu.vn
ORCID: https://orcid.org/0000-0001-9102-9084
Binh, Do Thi[1]
E-mail: binhdt@tmu.edu.vn
ORCID: https://orcid.org/0000-0003-0361-2558
Linh, Nguyen Phuong[1]
E-mail: linhnguyen@tmu.edu.vn
ORCID: https://orcid.org/0000-0001-7757-2806
Linh, Pham Duong Phuong[2]
E-mail: phamduongphuonglinh1@gmail.com
ORCID: https://orcid.org/0000-0002-0386-0239
[1] Thuongmai University, Vietnam
[2] University of London, Vietnam

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ABSTRACT

Under the light of the RBV Theory and the power of the fourth industrial revolution perspectives, the present study aims firstly to review the literature on the prominent role of innovation practices in sustaining the competitive advantage for young firms. The study explores the reality in innovation practices and sustainable competitive advantage of young firms in Vietnam based on 12 experts' opinions and responses from 289 young firms' leaders. Based on the remarkable gaps of current literature on competitive advantage and the fresh reality in the innovation of young firms in Vietnam, the study proposes an agenda for future research on innovation utilization for youth firms in order to create superior competitive advantage in the current context of the industry 4.0.

Keywords: innovation, value co-creation, sustainable competitive advantage, young firm, Industry 4.0

RESUMEN

Bajo la luz de la teoría RBV y el poder de las perspectivas de la cuarta revolución industrial, el presente estudio tiene como objetivo, en primer lugar, revisar la literatura sobre el papel destacado de las prácticas de innovación en el mantenimiento de la ventaja competitiva de las empresas jóvenes. El estudio explora la realidad en las prácticas de innovación y la ventaja competitiva sostenible de las empresas jóvenes en Vietnam con base en las opiniones de 12 expertos y las respuestas de los líderes de 289 empresas jóvenes. Basado en las notables brechas de la literatura actual sobre la ventaja competitiva y la realidad aumentada en la innovación de las empresas jóvenes en Vietnam, el estudio propone una agenda para futuras investigaciones sobre la utilización de la innovación para las empresas jóvenes con el fin de crear una ventaja competitiva superior en el contexto actual de la industria 4.0.

Palabras clave: Innovación, co-creación de valor, ventaja competitiva sostenible, empresa joven, Industria 4.0.

INTRODUCTION

Up to now, the world has been going through four industrial revolutions. Firstly, Industry 1.0 is associated with hydraulic and steam machines to factories. Secondly, Industry 2.0 is based on the specialization of labor and production. It resulted in high productivity and lower costs with mass production. Thirdly, Industry 3.0 introduced a wide utilization of electronic and information technology as well as the manufacturing process with continuous automation. And currently, the world is at the beginning of the fourth industrial revolution. According to Schwab (2016), the fourth industrial revolution is a term that encompasses a wide range of modern automation, data exchange, and fabrication. The fourth industrial revolution is considered as a term phrase for the technologies and concepts of the organizations in the value chain with physical systems in virtual space, the Internet of Things (IoT), and the Internet of Services (IoS). The essence of the fourth industrial revolution is based on the foundation of digital technology and integration of all intelligent technologies to optimize process and production methods; emphasize the technologies with the biggest impact such as 3D printing, biotechnology, new material technology, automation technology, robotics, etc. Hence, Industry 4.0 is applied in different aspects of society, including production, technology, business, and consumption, and many other fields of human life. This technological revolution creates production systems with intelligent machines, equipment, intelligent production lines, and intelligent management systems; intelligent industries, electrical infrastructure systems, intelligent transportation, and intelligent consumption as well. In the context of Industry 4.0, the modern economy becomes a knowledge-intelligence economy. In the technological revolution, knowledge, scientific and technological achievements, ideas, and application of innovation are the main driving force for growth and development in both enterprises and society. Hence, it is forecasted and assessed that the fourth industrial revolution will develop many times faster than the previous industrial revolutions to blur boundaries between science and technology; strong and profound impacts will change fundamentally from production methods, business, consumption, world politics and security, human organization and social activities in householders, families, countries and global.

In this context, the previous studies have indicated that dynamic firms with proactive innovation can achieve higher competitive advantage quickly (Anning-Dorson & Nyamekye, 2020; Ferreira, et al., 2018). The prior studies in the other hand justify that in a dynamic environment, firms should be more adaptive and flexible in innovation to match the context. The studies on innovation should be designed for different groups of firms in different contexts. However, the current literature lacks studies on innovation conducted for a specific group such as young firms which play an important role in emerging countries. Hence, this study also reveals the updated realities of innovation practices and the sustainable competitive advantage of young firms in Vietnam. Based on research gaps and new realities updated, the paper suggests an agenda for future innovation research for sustaining sustainable competitive advantage (SCA) in the current context of Industry 4.0.

MATERIALS AND METHODS

Under the theoretical light of resource-based view (RBV), the role of innovation in sustaining competitive advantage is exploitable of any firm type. The resource-based view (RBV) implies the link between internal characteristics and a firm's outcomes (Barney, 1991). Accordingly, the firm is able to create a competitive advantage if it can exploit its VRIN (valuable, rare, imperfectly imitated, and non-substituted) capabilities. Among different resources and competencies of the firm, innovation and its expansive application are the prominent sources to develop as valuable, rare, inimitable and non-substituted competency. Remarkably, this is an available resource to exploit at any firm type and firm age, it is not the own attributes of large or mature firms. Particularly, with limited tangible resources and poor experience of most youth firms, innovation capacities are truly prominent to be exploited for sustaining competitive advantage. Hence, leveraging the competency of innovation also enables the firm to pursue greater opportunities in the context of Industry 4.0.

Literature review on Innovation practices and competitive advantage

As indicated by VRIN Model, the success or competitive advantage of a firm depends on the firm-VRIN resources or capabilities while innovation is one of VRIN capabilities that can be exploited. The prominent impact of innovation on competitive advantage or other outcomes of the firm is also supported by several previous studies (Ferreira, et al., 2018). Innovation enables a firm to create unique insight that is not easy to imitate by competitors. Accordingly, innovation can be utilized to create an idiosyncratic endowment that can be the own asset of the firm, and that is a competitive advantage. Hence, innovation has emerged as a strategic tool for firms to gain competitive advantage (Anyanitha Distanont & Khongmalai, 2020).

In the tough competition environment, innovation is also considered a significant approach to maintain competitive advantage. The firms needed to be more adaptive and flexible through innovation to meet the dynamic change

from the competitive environment. However, the current stock of knowledge seems to be insufficient to reflect the holistic and adaptive utilization of innovation for modern business in the context of Industry 4.0. The previous studies have indicated some aspects of innovation utilization which are positively related to the business performance of enterprises or other outcomes (Anik & Sulistyo, 2021; Anning-Dorson & Nyamekye, 2020). However, the common approach to innovation is seen as the creation of new materials, new services, new products, or new techniques (Abou-Moghli, et al., 2012). There are a few studies that have focused on holistic innovation of all aspects and levels in the firms especially, it is really rare of studies on expensive practices of innovation in the context of Industry 4.0. There is a paucity of research having focused on comprehensive aspects of innovation (Hull & Tidd, 2003; Tidd & Bessant, 2009;). These studies interpreted innovation at a diversified level of strategy, organization, product, technology, and system. This holistic approach of innovation practices needs to be explored widely in different contexts and link to the current attribute of Industry 4.0 to extend the current knowledge and well as to have more guidelines for practical application in the new context.

Nevertheless, the previous studies mostly considered the service sector and examined all firm types. It is even more difficult to find the one that is conducted for the young firms meanwhile these firms are facing several constraints and do need to sustain utilization of their exploitable innovation capability. Many studies on innovation with little attention paid to young firms and they are mostly focused on large enterprises or studied in general for all firms (Distanont & Khongmalai, 2020; Mugo & Macharia, 2020). Small and medium enterprises with limited scale and resources are even more innovative, especially in the adaptation to the changing demands of customers and environmental conditions. Some recent research has also asserted the benefits of innovation application for small enterprises, of which a large number are young enterprises. Specifically, some authors such as also determine that many innovative applications are also suitable and beneficial for SMEs such as application for product innovation, organization innovation, market innovation, etc. Accordingly, some research has initially shown positive impacts of innovation on competitive advantages or operation results of SMEs (Ferreira, et al., 2018; Prajogo, et al., 2016).

In Vietnam, there are some studies that have e explored the role of innovation in sustaining the outcome of the firm, however, no one has so far conducted for youth firms. One of the most remarkable studies in Vietnam is study of Tuan et al. (2016). This research focus on finding the factors influencing innovation and also exploring the roles of innovation in the enterprises of supporting industry (Tuan et al., 2016). In particular, these have verified the influence of internal and external environmental factors on innovation and innovation on firm performance. Nevertheless, these studies approached innovation with a few aspects and have not yet exploited innovation in the linkage to the attributes of the Industry 4.0 platform.

In other hand, oriented as a start-up nation, the number of young enterprises in Vietnam has been strongly increased in recent years. Besides the growth in the number, quality or the sustainability of a young business is one of the central concerns of policymakers and business practitioners. Strengthening competitive advantages for Vietnamese young enterprises is one of the most important tasks in the context of Industry 4.0. Along with the national development orientation of start-ups, the research on finding solutions to enhance competitive advantage for young enterprises approaching innovation in the industrial revolution 4.0 is an urgent requirement.

Research Methodology

To open up more clearly about the literature and practical gaps and suggest a realistic agenda for future research, the present study focuses on a preliminary step of exploring the fresh realities on innovation practices and SCA from young firms in Vietnam based on expert interview and survey. In order to have fresh information from experts and business practitioners, the authors have interviewed 12 experts who are public officers, academicians, and business practitioners. In addition, based on three key dimension practices of innovation, those are strategy innovation, process innovation and system innovation suggested by Taghizadeh, et al., (2016); Hull (2004); Tidd & Bessant (2009), Tidd & Hull (2003), this study explore more clearly about the realities on holistic innovation practices of young firms, the next part of this studies will explore the new realities based on the fresh information from experts' opinions and survey data on strategy innovation, process innovation, and system innovation and sustainable competitive advantage young firms in Vietnam.

The survey in this study used a Likert scale 1–7 questionnaire which was developed from previous studies. The items used to measure strategy innovation (5 items) which were adopted from Taghizadeh, et al. *(*2016), process innovation (6 items) were adapted from Hull (2004), system innovation (7 items) were adapted from the study of Hull & Tidd (2003), Tidd & Bessant (2009). In addition, the items used to measure sustainable competitive advantage (4 items) were adapted from Salunke, et al., (2019). We translated the questionnaire into Vietnamese then back–translated it to confirm the accuracy of the meaning of each item for

the survey. We also conducted a pre-test of the questionnaire by interviewing 12 local experts, asking them about the questionnaire and items used to measure.

Based on these items, the research uses a quantitative research approach with data collected from respondents who are leaders from young firms in Vietnam with the support of Young Vietnamese entrepreneurs (VYEA). A total of 350 completed questionnaires were returned. However, according to Brown, et al., (2009), young firms are defined as firms which less than 15 years of business. Therefore, to have objective data, this study only used the questionnaires that were collected from the firms which have been in business for 1 to less than 15 years. In addition, this is the survey based on organizational unit and the respondents need to be the leaders who are working as department heads or high positions in the firm. Thus, all the questionnaires which were filled by lower position holders were eliminated in this study. On the other hand, the qualified respondents also need to have at least one–year of working experience at the firm to understand well the innovation and SCA. Therefore, only 289 filled questionnaires meet all these requirements and are qualified to use for the study.

RESULTS AND DISCUSSION

Findings on Reality of innovation practices and sustainable competitive advantage in Vietnam

Firstly, the findings on reality of innovation practices and sustainable competitive advantage in Vietnam is discussed base on fresh information from 12 experts and business practitioners. The experts' opinions have revealed the reality that with the powerful effect of Industry 4.0, there has been a significant change in innovation in recent years in enterprise community particularly for young firms in Vietnam. Besides a large number of non-profitable firms cannot maintain a traditional competitive advantage in the new context of Industry 4.0. There are several young firms which have been emerging as one of the remarkably successful case studies based on innovation strategy. The innovation practices have differentiated the competitive advantage of the firm significantly. Remarkably, the experts also indicated that the innovation practices do not always increase along with the age or experience of the firm, which means that younger firms are even more active and dynamic than old firms in innovation. The business model trends to be simpler and uses the shared resources such as working space, value co-creation network, and open innovation.

According to experts' opinions, young firms nowadays can penetrate the market quickly based on the exploitation of linkage with customers, suppliers, and other partners. They may have many shortages of finance and experience; however, many new innovative strategies have sustained their competitive advantage impressively. The young firms are seizing well the emerging opportunities from the dynamic business environment and are active in the continuous improvement of products based on updated responses from customers. Many garment and textile firms and shoe firms nowadays have just-in-time delivery systems due to their production is being carried out based on the orders of customers after launching just samples of new products. They also gave examples in the international context, in this context, dynamic firms with proactive innovation can gain superior competitive advantage quickly against older competitors. They are very impressed by innovative business models in the world and Vietnam. Innovation has changed deeply all levels of innovation from strategy to implementation process and operating system in the firms. Thus, most of the interviewees considered innovation as one of the strategic tools for sustaining competitive advantage in the current context of Industry 4.0. Besides dynamic young businesses, there are several businesses still struggling with new ways of doing business of competitors. These firms also have limited level of innovation practice in production.

Secondly, the findings on reality of innovation practices and sustainable competitive advantage in Vietnam is also described based on the survey data. Table 1 indicates an overview of respondents' demographic characteristics and their firms which are participant of this research survey. The results indicated that firms are almost at the age of 3 to less than 15 years, account for 87.5% and the smallest group is the firms at 1-3 years in business. In addition, the majority of the firms are small and medium firms which have less than 300 employees and account for 90.7% of total firms in this survey. The result also shows that 43.9% of firms are doing business in the manufacturing industry and 56.1% of firms are service firms.

Regarding the respondents' profile, table 1 shows that 42.6% of respondents are department heads or equivalent position holders, 27.3% are deputy CEOs/deputy managers of the firm, and 30.1% are CEOs. Finally, as mentioned above, this study only selected questionnaire completed by respondents who have at least 1 working year at the present firm, thus 100% of samples used for analysis are filled by respondents who have at least 1-year experience at the firms. The result shows that 49.1% of respondents have experience of 5 years and above, 30.1% have experience of 3-5 years and 20.8% of respondents have experience of 1-3 years.

Table 1. Profile of Respondents and their firms.

Characteristics	Frequency	Percent	Cumulative Percent
Firm Age			
1-3 years	36	12.5	12.5
3-5 years	70	24.2	36.7
5-10 years	98	33.9	70.6
10-less than 15 years	85	29.4	100.0
Total	289	100.0	
Firm Size			
1-9 employees	48	16.6	16.6
10-49 employees	91	31.5	48.1
50-99 employees	57	19.7	67.8
100-199 employees	46	15.9	83.7
200-299 employees	20	6.9	90.7
300 employees and above	27	9.3	100.0
Total	289	100.0	
Industry			
Manufacturing	127	43.9	43.9
Service	162	56.1	100.0
Total	289	100.0	
Respondent's Position			
CEOs	87	30.1	30.1
Deputy CEO	79	27.3	57.4
Dept. Head or equivalent position	123	42.6	100.0
Total	289	100.0	
Respondent's Experience			
1-3 years	60	20.8	20.8
3-5 years	87	30.1	50.9
5 years and above	142	49.1	100.0
Total	289	100.0	

Source: Uyen et al. (2021), Innovation Practices Project, Thuongmai University, Vietnam.

In other hands, based on the descriptive statistics (Table 2) of computed variables and items (Appendix), the results of the survey of 289 top leaders of young firms in Vietnam indicated that among three dimensions of innovation practices, strategy innovation has the lowest mean score (4.92) while system innovation has the highest mean score (5.5) and process innovation at the middle level of 5.07. With the Likert scale 1-7, these average scores of innovation indicators indicated that the innovation practices are utilized at young firms and their SCA is also not poor at every young firm as mentioned by the interviewees. Nevertheless, the average scores of innovation practices and SCA are not high and this result may result from the other less active firms mentioned above by interviewees. According to the experts, although several young firms are now very active in employing innovation and gaining the impressive achievements, there are a certain number of non-profitable firms which may have a low level of innovation practices and causing the mean scores of innovation practices and SCA to remain limited. Nevertheless, the fresh data from this survey strongly confirms the existence of innovation activities at young firms and the SCA indicator is prominent. In addition, the experts especially are impressed with the prominent role of innovation in sustaining SCA for young firm in the current context of Industry 4.0. These realities support for theoretical prediction in previous studies reviewed above of the role of innovation as a VRIN resource which need to be exploited to sustain SCA for the firm.

Table 2. Descriptive Statistics on Innovation practices and SCA of Young Firms in Vietnam.

Constructs	N	Mean	Std. Deviation
STR	289	4.92	1.153
PRO	289	5.07	1.241
SYS	289	5.50	1.073
SCA	289	5.32	1.072
Valid N (list wise)	289		

Source: Uyen et al. (2021), Innovation Practices Project, Thuongmai University, Vietnam.

Discussion and agenda for future studies

Both literature review and fresh realities of young firms suggest a call for further empirical studies to examine more deeply the prominent role of different innovation practices in sustaining SCA as well as other performance outcomes of young firms. The fresh findings in this studies is consistent to the previous research that has initially shown positive impacts of innovation on competitive advantages or performance indicators of SMEs which may include young firms (Ferreira, et al., 2018; Prajogo & Oke, 2016). The fresh realities were indicated in this studies are also sustain the conclusions of prior studies indicated that a large number of startup firms or young firms has poor performance, and one of the reasons for the above figures is the constraint of creation and innovation in start-up ideas, poor R&D capacity, lack of innovative technology and novel knowledge, etc. (Breuer & Lüdeke-Freund, 2017).

Nevertheless, up far now, it seems absent of studies emphasizing on the innovation of young firms in the present context of the fourth industrial revolution. There is a big gap of research on innovation for young firms, and it is really necessary to be fulfilled. The current researchers paid little attention to youth firms that even play an important role in the economy. Due to many special features of the youth firms, these enterprises need to be treated specially with focused research for this group. In addition, as mentioned above, because of limited resources and capabilities of most youth firms and the strong support from RBV theory, innovation and value co-creation need to be exploited to become the VRIN or core competencies for sustaining. Leveraging the core competencies of value co-creation and innovation also enable the firm to pursue greater opportunities opening in the context of Industry 4.0 (Ferreira, et al., 2018; Prajogo, et al., 2016). In addition, the experts' opinions and fresh data from the survey of 289 firms also suggest for the prominent role of innovation to sustain SCA at young firms. Although innovation and its expansion such as value co-creation-based innovation in practices is showing a bright signal as a powerful tool for creating superior competitive advantage for young firms in the context of Industry 4.0, few attempts discovered its important role empirically (Anwar & Shah, 2020). There is a lack of studies on exploring different dimensions of innovation practices and its expansion especially for young firms based on the platform of Industry 4.0.

Therefore, based on these rationales, the further studies should fulfilled above gaps with the following orientations: (1) Studying empirically the impact of innovation utilization at comprehensive dimensions on firm's competitive advantage especially for the young firms in the context of Industry 4.0; (2) Exploring on how the 4th industrial revolution changes innovation utilization; (3) Research on developing the measures for innovation in the context of Industry 4.0 to create fundamental guidelines for empirical studies and orientation for development of innovation utilization of the firms in the current context; (4) Examining the effectiveness of innovation and value co-creation based innovation in business models which is leveraged by platform of Industry 4.0; (5) Exploring value co-creation based innovation and other new approaches as the new expansion of innovation that involve different stakeholders as well as the effect of value co-creation based innovation on firm's SCA and performance indicators in the context of Industry 4.0.

CONCLUSIONES

This study has explored the remarkable gaps of current literature and the fresh realities on innovation practices and competitive advantage of young firms in Vietnam. The fresh information from expert's opinion and survey outputs in this study have revealed the prominent role of innovation practice in sustaining SCA. The fresh data from this survey also strongly confirms the existence of innovation activities are not only utilized at large firm but also fruitful at young firms in sustaining SCA in the current context of Industry 4.0. These realities support for theoretical prediction in previous studies reviewed above of the role of innovation as a VRIN resource which need to be exploited to sustain SCA for the firm. Based on literature gap and fresh reality of young firms' innovation practices, this study has suggested a research agenda for further studies to examine more deeply the prominent role of different innovation practices and their extension in sustaining SCA of young firms in the context of technological revolution. With the solid bases of both literature and updated realties in Vietnam, the suggestion from this study opened up a prominent orientation for further studies in innovation practices and SCA.

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APPENDIX

Innovation practices and SCA of Young Firms in Vietnam

	N	Mean	Std. Deviation
STR	289	4.92	1.153
STR1	289	5.31	1.305
STR2	289	5.06	1.342
STR3	289	5.01	1.537
STR4	289	4.58	1.625
STR5	289	4.64	1.577
PRO	289	5.07	1.241
PRO1	289	5.22	1.453
PRO2	289	4.98	1.604
PRO3	289	5.26	1.490
PRO4	289	4.95	1.455
PRO5	289	4.93	1.571
PRO6	289	5.08	1.515
SYS	289	5.50	1.073
SYS1	289	5.27	1.389
SYS2	289	5.52	1.250
SYS3	289	5.45	1.384
SYS4	289	5.33	1.366
SYS5	289	5.60	1.258
SYS6	289	5.55	1.343
SYS7	289	5.76	1.240
SCA	289	5.32	1.072
SCA1	289	5.06	1.365
SCA2	289	5.45	1.151
SCA3	289	5.27	1.334
SCA4	289	5.51	1.217
Valid N (list wise)	289		

Uyen et al. (2021), Innovation Practices Project, Thuongmai University, Vietnam