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THE INFLUENCE OF ENTREPRENEURIAL SELF-EFFICACY AND INNOVATION ON FIRM PERFORMANCE: EVIDENCE FROM THAI STARTUP FIRMS

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ABSTRACT

This descriptive case study examined the relationship between entrepreneurial self-efficacy and innovation and the business success of digital startup firms. Qualitative data was collected from in-depth interviews with entrepreneur-founders from four leading digital startups. In addition, interviewees completed a questionnaire measuring self-rated ESE and innovation to confirm whether the qualitative interviews were in accordance with the quantitative analysis. The results showed that ESE and innovation has a direct positive relationship to the financial and customer aspects of firm performance. ESE influences innovation, which in turn corresponds to firm performance. As juvenile organizations that are just venturing into entrepreneurship, startup firms inevitably face a unique set of obstacles. The performance of new ventures varied depending on the startup's stage and type of business. Entrepreneurs should focus on specific goals to survive during the early emerging stages. This study extends current research by investigating the relationships between types of innovation and ESE as a component of individual personality, as well as how these variables interact to contribute to the performance of early-stage startup firms. The findings present new insights concerning factors related to business success, which can inform supportive policies and programs to enhance ESE and innovation.

Contribution/Originality: This study is one of very few studies which have investigated all aspects of firm performance using balanced scorecard (BSC) of Thai startup firms through the exploration of entrepreneurial self-efficacy and types of innovation.

1. INTRODUCTION

A study by the Global Entrepreneurship Monitor (GEM) found that entrepreneurship has significant impacts on economic growth and wealth creation (Acs, Arenius, Hay, & Minniti, 2004). Innovation can generate expansive, size-transcendent tools and resources for entrepreneurs and it is becoming increasingly valued by diverse organizations, most notably technological firms and digital startups.

Accordingly, to enhance Thailand's competitiveness in the global market, the government recently launched the 20-Year National Strategic of Thailand, which focuses on digital transformation and the utilization of

innovation to propel the country's development into a cutting-edge economic powerhouse (Office of the National Economic and Social Development Board, 2017). The Thailand Board of Investment (2017) analyses concluded that the country's ecosystem was ripe to support a startup environment characterized by dynamic creative industries and strong customer demand. Accordingly, the government aims to create a business environment that particularly supports members of the younger generation to enter the world of technopreneurship and establish digital startup firms. However, it is not easy to build a successful startup firm and survive in a competitive environment. According to the Bednár and Tarišková (2017) nine out of ten startups fail in their first three years, however determining why some startups succeed and grow while others flounder and fail has proven to be a complex endeavor. A variety of factors influence the performance of all businesses, including issues related to customers, products, market dynamics, finances, and business models (Langen & Groenewegen, 2012) and only some of these are within the control of the business. Among the factors that are dependent on the entrepreneur, Karabulut (2015) emphasized entrepreneurial self-efficacy (ESE) and innovation as exerting a significant influence on startup success. However, precisely how these two variables interact to influence startup survival and performance remains incompletely understood.

This study aimed to contribute to the understanding of how entrepreneurial self-efficacy (ESE) and innovation influence the survival and success of startups. Specifically, qualitative data from a case study of several startups in Thailand were examined to identify how ESE influenced innovation at the firms and whether and how such innovations contributed to their success.

2. LITERATURE REVIEW

2.1. Entrepreneurial Self-Efficacy (ESE)

The concept of entrepreneurial self-efficacy (ESE) is heavily based on Bandura's social learning theory and has been widely applied to the understanding of management and entrepreneurship (Boyd & Vozikis, 1994; Wood & Bandura, 1989). ESE can be defined as an individual's belief in his or her ability to successfully perform as an entrepreneur and achieve positive outcomes (Chen, Greene, & Crick, 1998) and it comprises five dimensions, namely marketing, innovation, management, risk-taking, and financial control (Austin & Nauta, 2015; Cooper, Peake, & Watson, 2016). This measurement focuses on the respondents' self-reported analyses to describe the issues they faced in the process of establishing and developing their startup firms. Several researchers have investigated the effect of ESE on starting one's own business or creating a new venture as well as the performance of existing firms (Cumberland, Meek, & Germain, 2015; Luthans, 2002). ESE has been shown to help entrepreneurs to remain resilient and quickly recover from failure, set challenging goals, and display persistence resulting in improving business performance yielding the growth in the long-run operations (Trevelyan, 2011). Herath and Mahmood (2014) study of 350 Sri Lankan small-scale hospitality businesses concluded that the most significant factors influencing success were related to innovation and self-efficacy, particularly the entrepreneurs' perception that they had the ability to develop new products and market opportunities, build an innovative environment, initiate investor relationships, define a core purpose, and cope with unexpected challenges. Other quantitatve studies have similarly highlighted ESE as an important predictor for business growth, demonstrating a positive relationship between ESE of founders and revenue performance in new ventures (Baum & Locke, 2004; Forbes, 2005). In terms of gender, Murugesan and Jayavelu (2017) found no significant influence of gender on ESE or entrepreneur intention. In contrast, Shinnar, Hsu, and Powell (2014) reported that women expressed stronger intentions to pursue entrepreneurship than men because of the factor of entrepreneurship education in universities.

2.2. Innovation

Wan, Ong, and Lee (2005) defined innovation as the process of new ideas generation, adoption, and implementation. According to the Organisation for Economic Co-operation and Development (2005): "an innovation

is the implementation of a new or significantly improved product (goods or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations." The OECD categorizes innovation into four types, namely product, process, marketing, and organizational innovation. Based on the OECD's categorization, Tidd and Bessant (2009) proposed the creation of innovation spaces for firms to create and sustain strategic advantages by exploring and exploiting incremental and radical innovations in the "4Ps" of product and process innovation, position innovation (products and services marketing) and paradigm innovation (business modelling and organizational innovation).

Regardless of the size or type of business, each of the four innovation types is a vital strategic tool for business longevity and realizing a competitive advantage. Numerous empirical studies have demonstrated that entrepreneurs who implement innovative ideas on multiple dimensions can improve firm performance by providing value and satisfying customer needs. For example, Tuan, Nhan, Giang, and Ngoc (2016) research on Vietnamese companies highlighted product, process, marketing and organizational innovations as the keys to business survival and growth. Outcomes from effective innovations generated strong advantages on performance and benefits for management in Sri Lankan insurance companies (Rajapathirana & Hui, 2018) and innovation was reported to have a significant positive influence on the market, production, and financial performance of firms based in Turkey (Atalay, Anafarta, & Sarvan, 2013; Gunday, Ulusoy, Kilic, & Alpkan, 2011).

Lee, Lee, and Garrett (2019) found that all four types of innovation approaches have synergistic effects on firm performance: process innovation encourages both radical and incremental innovations, whereas product, marketing and organizational innovations enhance new products development as well as optimizing firms' overall performance. Karabulut (2015) confirmed that financial, customer, internal business processes, and learning & growth performance measured on the Balanced Scorecard (BSC) could be improved by implementing four types of innovation in accordance with Oslo manual directions. Firms should establish their business objectives and choose appropriate innovation strategies from the four dimensions to accomplish their desired goals. Particularly in the case of startups, such strategies must fit employees' individual personalities and skill sets and enable them to reach high performance.

2.3. Measuring Firm Performance

Hudson, Smart, and Bourne (2001) suggested that the Balanced Scorecard (BSC) introduced by Kaplan and Norton (1992) should be used as a managerial tool to measure the performance of small and medium enterprises (SMEs) in the early stages of development. The BSC has been used in non-profit, public, manufacturing, service, and small firms (Giannopoulos, Holt, Khansalar, & Cleanthous, 2013; Manville, 2007). Its intent is to provide a formalized mechanism for influencing managers to achieve a balance between non-financial and financial results across short- and long-term horizons by evaluating performance through four different perspectives oriented on financial control, customers, internal business processes, and learning and growth (Brewer, 2000). Kaplan and Norton proposed that "the Balanced Scorecard translates an organization's mission and strategy into a comprehensive set of performance measures" (Kaplan & Norton, 1992). However, the BSC does not formulate strategies, but rather serves as a management tools to help organizations achieve their goals (Phillips & Louvieris, 2005).

A critical assumption of the BSC is that there is a cause-and-effect relationship between the financial and non-financial aspects (Sinha, 2006). Emphasizing the learning and the growth perspective can lead to better internal business processes, thereby resulting in better products and services, improved customer value and satisfaction, which in turn lead to enhanced financial outcomes.

2.4. The Construction of the Conceptual Framework in this Study

Entrepreneurial self-efficacy (ESE) appears to influence entrepreneur intention, which in turn results in better firm performance. Entrepreneurs who have innovative ideas can improve firm performance by providing value and satisfying customers' needs.

Although extensive research has examined the positive influences of ESE and innovation on firm performance, limited attention has been devoted to explaining how these factors interact to promote organizational success, particularly in the case of startup firms, which are vulnerable in performance as measured on the Balanced Scorecard.The assessment of ESE's impact on innovation type, leading to firm performance was conducted. In addition, the ESE directly has impacts on the firm performance measured by the BSC. Therefore, we scrutinized the relationship between five dimensions of ESE, four types of firm innovation, and firm performance through in-depth interviews and 7-point Likert scale rankings measuring the firms' attitudes and performances in order to understand how these factors contribute to enhancing the growth of startup firms in Thailand as measured by the BSC.

The conceptual framework shown in Figure 1 was constructed based on the research gap identified from our literature review to test how entrepreneurial self-efficacy (in marketing, innovation, management, risk-taking and financial control) is linked to entrepreneurs' individual characteristics and firm innovation (based on OECD types), and how these interact to influence the performance of digital startup firms. This model was used to develop a questionnaire to interview and assess the participated companies.

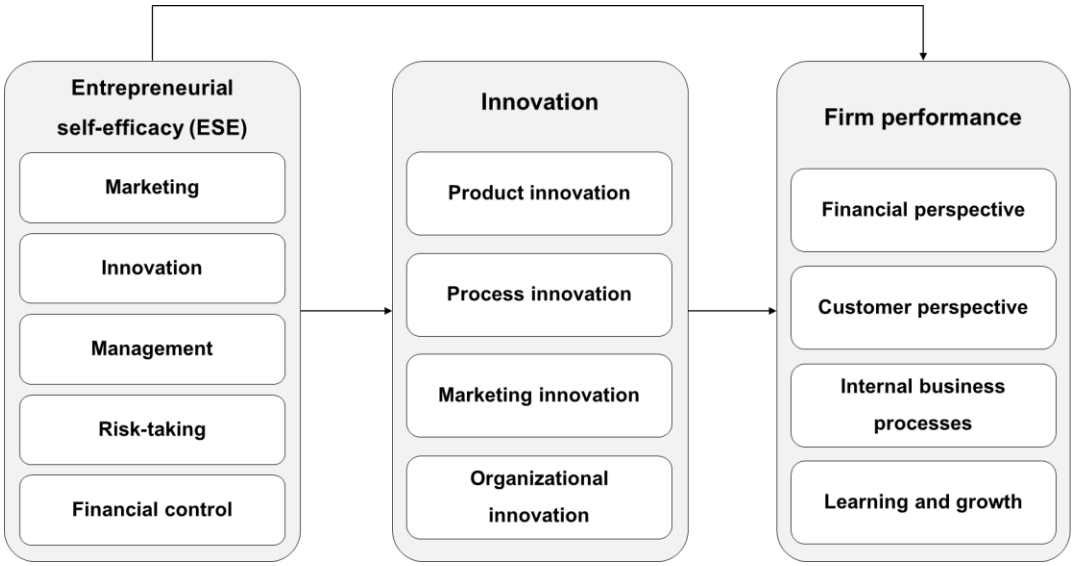

Figure-1. Conceptual framework.

Source: Chen et al. (1998); Kaplan and Norton (1992); Organisation for Economic Co-operation and Development (2005).

3. METHODOLOGY

3.1. Research Method

The conceptual framework was constructed to assess the effects of ESE on innovation and the influence of both factors on firm performance as measured by the Balanced Scorecard. The analysis focused on data from entrepreneur respondents, who described the issues they faced in the process of establishing and developing their startup firms. This case study employed qualitative methods to extract rich, precise, and holistic information from the case being studied (Flick, 2018).

3.2. Sampling Design

The founders of four technology and/or digital startup companies were selected as the sample for in-depth interviews. The sample selection approach was non-probability in the form of judgment sampling due to the

complexity of the specific data required. The researcher selected the sample based on the criteria that participating firms must be scalable technology or digital startup companies with limited entity status registered in Thailand. Companies needed to have been established for between 1-5 years so as to be able to easily track their growth and profitability (Scott & Bruce, 1987).

3.3. Instrument Design

Guidelines for semi-structured interviews were derived from relevant literatures involving ESE, innovation, and performance factors (Chen et al., 1998; Dessyana & Riyanti, 2017; Song, Podoynitsyna, Van Der Bij, & Halman, 2008). Respondents answered open-ended questions that asked them to share their perspectives in detail during the interview, such as "Please describe your competencies and success stories in developing new products and market opportunities?" Following the interviews, respondents were asked to score their ESE and innovativeness on a 7-point Likert scale (1 = totally disagree to 7 = totally agree) in order to verify that their self-rated scores corresponded with the interview data.

3.4. Data Analysis

The relationship between ESE and innovation was quantitatively defined from the arithmetic means of each ESE and innovation sub-variable measured on 7-point Likert scale, which were used to calculate the total score for each variable. In addition, secondary data for comparison and analysis were obtained from company websites, the Thailand Ministry of Commerce, and public news and reports.

4. RESULTS

4.1. Profile of Respondents

Targeted interviewees' profile and company information are summarized in Table 1.

Table-1. Interviewed companies' business and owner profiles.

	Company A	**Company B**	**Company C**	**Company D**
Firm age*	3 years 8 months	3 years 1 month	4 years 5 months	2 years
Firm information	A back-office management platform for e-commerce, database, and inventory management.	A service provider for general household and office cleaning, including maid services, pest control, and gardening.	A data science innovator that uncovers insights and solves complex business problems through advanced data analytics.	A digital diary platform that motivates learners to practice diary and essay writing and creative mind mapping.
Founder's education	Economics	Computer Science	Electrical and Information Systems Engineering	Computer Engineering
Founder's age	24 years old	28 years old	35 years old	29 years old
Founder's prior experience	Part-time job in online seller/marketer	Product platform manager and web developer	Consultant and data science for e-commerce	No prior work experience before starting the business

Note: * Firm age as of December 2018.

4.2. Entrepreneurial Self-Efficacy (ESE)

ESE played a critical role for the four entrepreneurs when they were starting their businesses as well as during the early stages of development and growth. In the interviews, five dimensions of ESE were investigated, namely marketing, innovation, management, risk-taking, and financial control.

Company A's founder reported focusing on online channels such as e-commerce for marketing. The founder stated that her previous work experience in online marketing had provided her with an understanding of how to advertise and use social media (e.g., Facebook, Twitter, etc..) to reach target customers and enhance the numbers of views and sales. In contrast, the founder of Company C did not focus on such activities due to a lack of marketing experience. Hence, entrepreneurs' backgrounds had a direct impact on firm characteristics, thus illustrating how prior work experience and personal background can either foster or impede ESE (Kubberød & Pettersen, 2017).

Both inside-out and outside-in approaches were found to contribute ideas for innovation. The founders of Companies A, B, and D all claimed that new products and services had been initiated based on customer feedback. In other words, these entrepreneurs used the concept of open innovation (OI), which Bogers, Chesbrough, and Moedas (2018) described as an innovation process based on managed knowledge flows across organizational boundaries. They can exchange ideas among external stakeholders such as customers, partners, and suppliers to execute new projects. However, the entrepreneurs also used internal brainstorming activities with employees, which was encouraged by a flexible environment that encouraged the free expression of ideas and opinions. This process of generating ideas without final judgements is called the divergent technique, whereby a number of ideas are generated before taking further steps (Acar & Runco, 2019). Conversely, the founder of Company C believed in their own ability to create innovation and therefore initiated and shared their ideas with employees. Such owner-led innovation depends on entrepreneurs' background, experience, and belief in their ability to create innovation that will positively affect firm performance.

Delegation was identified as a key management process. All four entrepreneurs delegated work to subordinates and gave them decision-making authority. Company A's founder reported that they allowed employees to work from home, although they were required to occasionally put in office time due to the founder's belief that face-to-face communication creates more effective outcomes. Despite the company's digital orientation, face-to-face discussion was valued for promoting shared understanding of company goals and strategies (Yamat, 2013).

Barbosa, Gerhardt, and Kickul (2007) identified a positive relationship between risk-taking preference and opportunity-identification. The founders of Companies A, B, and D were relatively risk adverse. As they expressed, they engaged only in low-level risk taking because they wanted to ensure that any decisions or measures would result in certain success or pose minimal risks for their operations. In contrast, the founder of Company C expressed a high tolerance for risk-taking, which the founder attributed to his extensive industry experience, which had fostered an ability to quickly solve problems and rectify mistakes. Notably, the founder of Company C also expressed a vision to expand his business on a global scale.

The amount of control exerted over a firm's finances can have a strong impact on performance as reflected in financial statements. Companies A, B, and D reported using external accounting firms whereas Company C had an internal accounting department. The founders of the former three firms explained that they outsourced their accounting teams to avoid excessively high internal operating costs. However, the founder of Company C did not exert as much control over the firm's budget because he heavily invested in developing system performance to enhance customers' offerings and benefits.

The ESE scores for each dimension are summarized in Figure 2. Except for Company C, all the founders had similar scores in the ESE dimensions of marketing and financial control. The founder of Company C lacked marketing skills and preferred to outsource marketers for sales and promotions campaigns to attract customers, leading to higher incomes. Company B, which used open innovation, was ranked higher in that dimension; however, Company C, which utilized closed innovation was ranked second. This finding suggests that different types of firms

may require distinct innovation strategies, which can range from totally or partially closed or open innovation (Ahmed, Halim, & Ahmad, 2018).

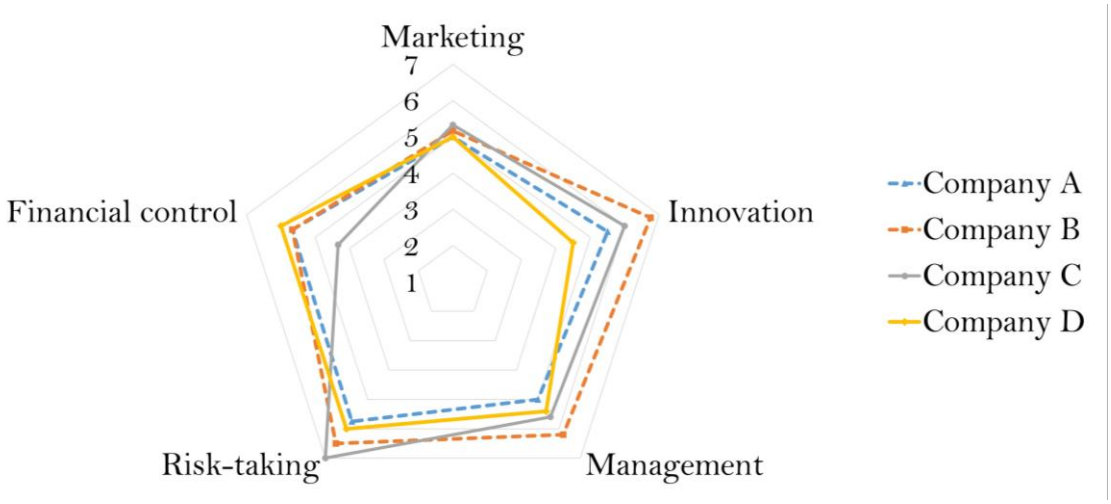

Figure-2. Entrepreneurial self-efficacy of startup firms.

4.3. Innovation

The four innovation dimensions elucidated by Tidd and Bessant (2009) which are similar to the categorization that we used from the Oslo Manual provided by Organisation for Economic Co-operation and Development (2005). Together, they comprise a guideline for entrepreneurs for inventing new products or services, developing new processes, launching new business marketing models, or managing internal business operations.

All the founders reported frequently using feedback and brainstorming ideas to innovate and improve their products. Particularly, Company C adopted technological patents licensing in their operations, which can help entrepreneurs understand trends and emerging areas of interests and better compete in the highly competitive market.

Process innovation can increase the level of product innovation (Lee et al., 2019). Our findings indicated that outsourcing was viewed as a useful means to enhance the quality of products and services. Companies A, C, and D outsourced programmers for process innovation to save time and avoid errors. Although the founder of the latter firm had a background in computer science and engineering, he claimed that outsourcing can shorten time and resources. Conversely, the co-founder of Company B had rich experience in software development and preferred to do their own programming.

Company A used varying marketing strategies such as promoting their products and services through exhibitions, events, and free seminars. Diverse marketing approaches enable entrepreneurs to reach a variety of users; for instance, a participant in a free seminar may recommend the firm to their friends and colleagues, who then become potential customers. In contrast, Companies B and C engaged in more limited marketing through paid online and social media, which resulted in a smaller and diverse range of viewers.

Internal knowledge is a company asset for organizational innovation that includes routine works as well as R&D activities (Dalmarco, Maehler, Trevisan, & Schiavini, 2017). Knowledge sharing has been widely identified as the most frequent KM process (Al-Emran, Mezhuyev, Kamaludin, & Shaalan, 2018). KM particularly strengthens the relationship between knowledge and development for startups. Accordingly, all the firms engaged in internal knowledge management (KM) through knowledge sharing and physical or online communities of practice (COP) comprised of employees with similar interests. Each member of the COP shares ideas and information, which other members can access to continuously absorb knowledge.

Figure 3 summarizes the four firms' innovation scores, which highlight two issues. First, Company D received the highest score on process innovation despite the founder's claim to have limited direct involvement in such activity. This finding could be explained by the fact that Company D hired expert programmers who command high remuneration, thereby fostering more rapid software development and professional work quality. Second, Company A was ranked third in marketing innovation despite the founder's employment of more varied channels than the other firms. However, the seminars had thus far demonstrated limited success in converting attendants to customers, which suggests that the firm will need to improve its efforts to foster participant motivation to use and recommend its services or adjust its advertising strategy to reach more potential customers.

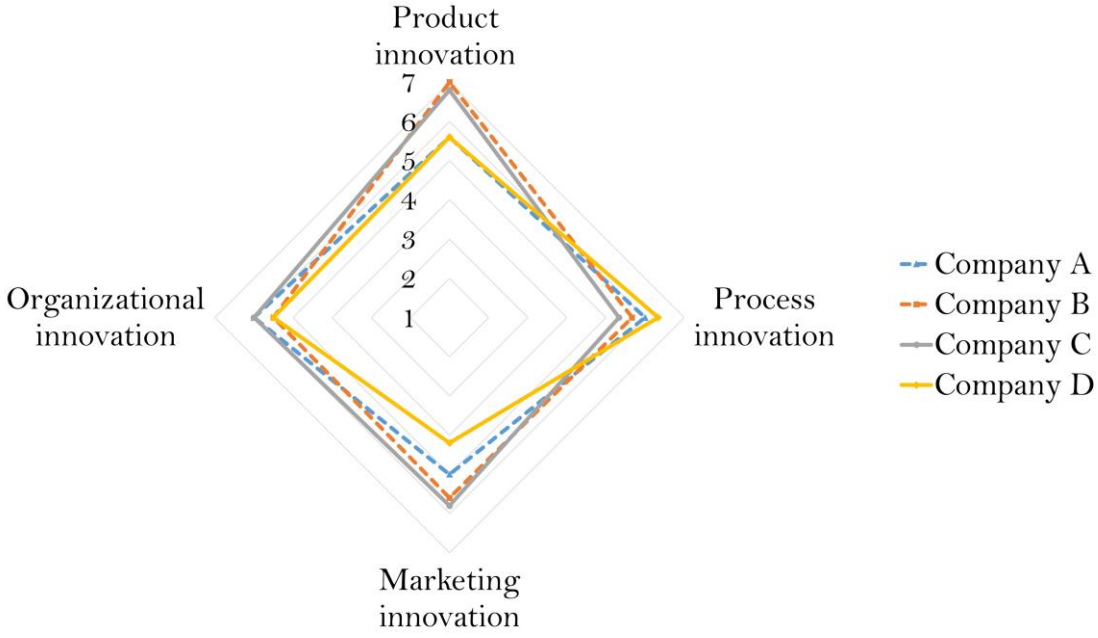

Figure-3. Innovation of startup firms.

4.4. Firm Performance

We explored four aspects of firm performance for startup companies as categorized by the BSC (financial control, customers, internal business processes, and learning and growth). Although all the firms were registered in Thai Department of Business Development, their financial data were tracked and available only for the last year. Hence, the financial results regarding revenue growth were gleaned from the interviewees.

All four companies reported experiencing positive revenue growth from the previous year. Companies C and B had the highest growth, accounting for 75% and 70%, respectively. Company B had recently expanded the business from a B2C model to a B2B market, which had resulted in higher market shares and margins, whereas Company C had expanded to international markets, including neighboring countries such as Myanmar and Vietnam, and conducted data analysis consulting for large foreign firms. As expected, Company D reported the lowest revenue growth due to its more specialized market; however, the founder reported plans to promote a loyalty program for existing customers to maintain its revenue stream.

Each firm reported a significant increase in the number of customers served as well as customer satisfaction. Most notably, Companies B and C experienced a ten-fold increase in their customer bases from the previous year due to the expansion of market segments. These two firms also had firmly established working systems, with clear roles and responsibilities for each function and a systematic recruitment system. In contrast, Companies A and D received lower scores on internal business process performance due to less effective work systems and management. Since the number of employees at these firms was limited, the co-founders felt able to operate smoothly without a

management system; however, there were no solid work procedures (WP) and job descriptions for auditing and presenting to employees and customers.

All four companies reported emphasizing a flexible working style and environment to promote learning and growth among employees. For instance, Company A supported flexible working hours and sometimes allowed employees to work from home. Each firm had established training programs such as on-the-job training (OJT) and in-house training for managers or senior employees and allowed employees to obtain training from external public courses to strengthen their knowledge and capacities. In addition to increasing employees' competencies, external training also facilitates networking with other firms and institutions, which is an essential factor in business expansion. In fact, employees at startup firms often have only OJT, as there is limited time available for internal training due to the high workload.

Overall, the performance results indicate that the founders of startup firms recognize the need to continuously improve both external performance (e.g., financial control and customer base) and internal efficiency (e.g., internal business process and learning and growth) in order to survive in their respective competitive markets.

5. DISCUSSION

5.1. Entrepreneurial Self-Efficacy (ESE) and Innovation

The relationship between ESE, personal characteristics of the entrepreneurs (or the founders), and innovation type of firms was investigated. As shown in Figure 2 and 3, there is a positive relationship between the total scores for founders' ESE and firm innovation. The individual characteristics of entrepreneurs can directly or indirectly affect a company's norms and values, and higher ESE can stimulate greater firm innovation which is accordance with the findings with Ahlin, Drnovšek, and Hisrich (2014) in that entrepreneur's creativity and ESE is a key personal strengths affecting firm innovation.

The results are also consistent with other findings regarding the influence of ESE on a firm's entrepreneurial orientation and innovativeness (Urban. & Wood, 2017). In general, greater self-efficacy can lead to higher innovation regardless of the type of innovation (Ng & Lucianetti, 2016). In this case study, the marketing dimension of ESE was seen to be directly linked to marketing innovation. Tang (2008) found that entrepreneurs with strong self-efficacy are more likely to be alert to new opportunities for new venture creation, and Chen. and Zhou (2017) concluded that founders with high degrees of self-efficacy are more confident in their capability to create innovation practices.

Cooper et al. (2016) found that a firm's orientation and culture can positively influence entrepreneurial innovation. This implies that founders should spend time to participate in innovation activities and build up creative organizational environments by motivating employees to boost their intrinsic motivations and engage in sustainable innovative activities.

Since we used the questionnaires with 7-Likert scale for ESE and firm innovation, it is possible to quantify the relationship between these variables. After the average scores for each sub variable was calculated, we summarized the scores for ESE and innovation. The total scores for ESE and innovation are 35 and 28, respectively. Each firm has gaps or areas of improvement to improve in both areas. Figure 4 shows a positive relationship between these variables; however, whereas ESE increases to a particular range, it seems that innovation rarely increases. It can be postulated that remarkably high entrepreneurial ESE cannot increase a firm's degree of innovation because the latter also depends on other factors such as employee involvement, resource availability, supportive policies, and incentives such as benefits or rewards.

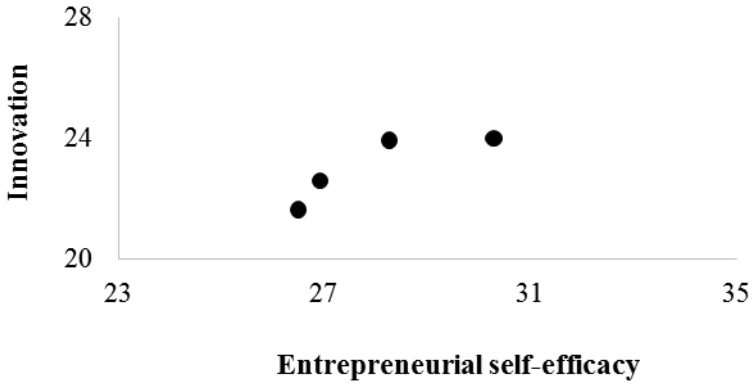

Figure-4. The relationship between entrepreneurial self-efficacy and innovation.

5.2. Entrepreneurial Self-Efficacy (ESE) and Firm Performance

Each firm's revenue growth and customer base had increased from the previous year. In each case, the founder's ESE-based decision-making had a key role in business success, which is in accordance with previous research on both startups and well-established firms (Barbosa et al., 2007; Herath & Mahmood, 2014). In a study of the effect of each dimension of ESE on firm performance, Cumberland et al. (2015) found that whereas innovation, management, and financial control have positive effects, marketing and risk-taking seemed to have no significant effect. However, this study inferred a link between the latter variables and performance, as reflected in Company C's high tolerance for risk and use of professional outsources marketing services, which had paid off in the form of opportunities for regional international expansion. Company C had also been in business for a longer period than the other firms; thus, the stage of business development may impact the relative importance of each ESE dimension. Although all the firms had experienced revenue growth, this exceeded 50% only in the cases of Companies B and C, each of which had been in operation for at least three years.

Some founders reported implementing measures based on previous work experience. Prior experience can positively influence the ESE-firm performance relationship (Miao, Qian, & Ma, 2017). Sardeshmukh and Corbett (2011) found that ESE depends on the quality rather than the length of an individual's work experience; however, the interview findings suggested that each of these factors contributes to different entrepreneurial characteristics and both are important to boost ESE.

Due to the nascent developmental state of startup firms, internal business process and learning and growth may be less evident, as offices, facilities, and internal systems may not be well established and organized. As such, the ESE of founders is the key driver to cultivate the firm's culture and achieve continuous improvement.

Our findings were consistent with those of previous studies. Startups have a better chance at success when the founder has higher levels of ESE, which is required to structure, manage, bundle, and leverage resources, including money, time, and employees (McGee, Peterson, Mueller, & Sequeira, 2009). Chen et al. (1998) found that entrepreneurs with higher ESE can be more opportunistic, as they believe in their capabilities to achieve vision and goals. In this case, all the entrepreneurs were active and open-minded individuals able to adapt themselves into different environments and had led their firms to success on either the domestic or international scale. Startup founders need to continuously improve their skills and competencies to deal with the dynamic circumstances in entrepreneurial environments (Welter & Smallbone, 2011).

5.3. Innovation and Firm Performance

All the firms had achieved a positive revenue growth rate. The interview data indicated that revenue growth can be directly influenced by the timely launching of product innovations to the market. Time lags between innovation implementation and performance reflected in financial statements are common (Zahra & Das, 1993) as it takes times for users to decide whether or not to adopt the innovation, resulting in the delay in financial

performance. However, as the firms in this study are startups, which tend to employ advanced technology for quality product or service performance, and the results of innovation affect their performance more quickly due to shorter developmental times and easier market access. Gunday et al. (2011) found that product innovation has a strong impact on sales and revenues, particularly for high-tech companies, which depend on product innovation for survival and growth (Rubera & Kirca, 2012).

Process innovation influences internal business process performance by outsourcing less important and high-skill tasks to shorten time and avoid mistakes. Notably, the founder of Company D outsourced for process innovation despite having relevant experience. Outsourcing is an important strategy for startups because delegating certain business operations to experts namely business consultants allows the firm to focus on core competencies and provide customers with unique, high quality goods or services.

Although previous studies have found that marketing innovation does not affect the performance of high-tech firms (Lee et al., 2019) we argue that unique marketing strategies are necessary for companies to spread awareness as well as maintain existing and attract new customers. Marketing campaigns essentially employ psychological means to solicit customers, particularly in cases when the offered good or service is not a necessity. Companies that are open and adaptable to the changes benefit from technological innovation (Doran, 2012). Organizational innovation such as knowledge management and communities of practice (COP) can foster learning and growth performance by contributing to a flexible working environment and culture in which employees feel comfortable sharing ideas and opinions. Startup firms with younger or millennial employees particularly should adapt to emerging working styles by working to establish comfortable environments while maintaining core protocols (Lin & Chen, 2007).

The study's findings hold implications for policymakers, practitioners, and researchers. The results can be valuable for informing governments' efforts to support startup firms by launching new policies to enhance entrepreneurial behaviors. Since policy is a key enabler for startup firms, there is a need for a strong evidence to demonstrate the effectiveness of promoting SME innovation growth as a means to encourage measures such as funding and tax exemption policies (Wright, Roper, Hart, & Carter, 2015) which are crucial for new enterprises in emerging economies with relatively scarce financial resources (Urban, 2019).

6. CONCULSION AND FUTURE RESEARCH

This study investigated the influence of entrepreneurial self-efficacy (ESE) and firm innovation on the performance of digital startup firms. Our analysis of qualitative interview data from four founders of companies in business for less than five years highlights ESE and innovation as major success factors for new ventures in a highly competitive business environment.

The study examined the relationships between ESE and firm performance, innovation and firm performance, and ESE and innovation. ESE was identified as the initial factor that either directly impacts a firm's performance or shapes its approach to innovation, which in turn has effects on performance. Stimulated by ESE, product innovation fuels the development of unique products or services, whereas other innovation types function to support a more efficient working process. ESE also has the impact on innovation depending on the type of business and its time and resource availability. Startup firms should measure and monitor their performance in targeted areas rather than trying to perform well in all dimensions, which could potentially lead to loss of focus and possibly business failure.

Further research can integrate quantitative analysis to expand the sample size to determine whether the study findings are generalizable to a broader population of startup firms. Examining relationships between ESE and innovation across many firms could contribute to a better understanding of the degrees of influence exerted by the sub-factors of each dimension of ESE and innovation on entrepreneurial success.

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