

# **THE USE OF DIGITAL CHANNELS SUPPORTING SMEs’ INTERNATIONAL BUSINESS COMPETENCE, INTERNATIONAL PERFORMANCE AND THEIR MODES OF ENTRY**

**Yanida Siamwalla**

Assumption University of Thailand

## **ABSTRACT**

*Information and Communication Technology (ICT) has become a global trend that businesses cannot ignore. It has been integrated into business practices and marketing functions whether the business is operating locally or internationally. This study identifies that the performance of firms is derived from their business competences which include marketing skill, market orientation and innovativeness. The study investigates those Small and Medium-sized Enterprises (SMEs) in Thailand which are involved in international business activities using various digital channels (DC) in communicating and socializing with their customers. The author offers a DCIBCOM model to link the SMEs’ digital channels, international business competence (IBC) and their international performance (IP) in relation to their three modes of entry (MoE) to foreign markets. This study’s unit of analysis consists of 146 SMEs from various industries. The results suggest that with different modes of entry, different components of IBC need to be emphasized. This study also finds that all four channels of digital technology (mobile applications, internet services, website and social networks) have no significant impact on SMEs’ performance in all three modes of entry. However, the study finds important positive and negative impacts of digital channels in different foreign market modes.*

*Keywords: International Business Competence, International Performance, Digital Technology Channels, Mode of Entry*

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Yanida Siamwalla is currently working as Director of Quality Assurance Center and full time instructor of International Business Management Department, Martin de Tours School of Management and Economics at Assumption University, Thailand. She earned her Master degree concentration in Finance from Xavier University, USA and a Doctorate degree in Management from Assumption University, Thailand. She has experiences being an entrepreneur and a management consultant for many corporations in Thailand. Her major interest in research areas are Change Management, International Business, Digital Technology Channels and E-Commerce. Yanida Siamwalla can be contacted at: yadasiam@gmail.com

## บทคัดย่อ

ข้อมูลและเทคโนโลยีการสื่อสาร (ICT) ได้กลายเป็นแนวโน้มที่โลกธุรกิจไม่สามารถมองข้ามไปได้เพราะ ICT ได้ถูกนำมาผนวกเข้ากับแผนการตลาดและการดำเนินธุรกิจที่เกี่ยวข้องในการดำเนินธุรกิจ ทั้งในประเทศและต่างประเทศ ในบทความวิจัยนี้ได้ระบุว่าประสิทธิภาพของบริษัทมาจากความสามารถทางด้านธุรกิจ ในเชิงทักษะด้านการตลาด การปรับตัวด้านการตลาดและความสามารถทางด้านสร้างสรรค์ของบริษัท การศึกษานี้ได้ทำการสำรวจกับบริษัทขนาดเล็กและขนาดกลาง (SMEs) ที่เกี่ยวข้องมีธุรกิจระหว่างประเทศ โดยใช้ช่องทางดิจิทัลเทคโนโลยีต่าง ๆ ในการสื่อสารและติดต่อกับลูกค้า ผู้วิจัยนำเสนอแบบ DCIBCOM ซึ่งวิเคราะห์การเชื่อมโยงของช่องทางดิจิทัลของ SMEs กับความสามารถด้านธุรกิจระหว่างประเทศ (IBC) และประสิทธิภาพของการดำเนินงาน (IP) รวมถึงวิธีการเข้าสู่ตลาดต่างประเทศ (MoE) ในการศึกษานี้หน่วยของการวิเคราะห์ประกอบด้วย SMEs 146 บริษัทจากอุตสาหกรรมหลากหลายชนิดผลลัพธ์ที่ได้บ่งชี้ว่า วิธีการเข้าตลาดต่างประเทศต่างกัน จะมีผลต่อการเลือกใช้ความสามารถด้านธุรกิจระหว่างประเทศต่างกันไปด้วย ในการศึกษานี้ยังพบว่า ในสี่ช่องทางของเทคโนโลยีดิจิทัล ซึ่งได้แก่การใช้งานมือถือ บริการอินเทอร์เน็ต เว็บไซต์และเครือข่ายทางสังคม ไม่มีผลกระทบต่อประสิทธิภาพการทำงานของ SMEs ในการเข้าตลาดต่างประเทศทั้งสามวิธี อย่างไรก็ตามจากการศึกษานี้พบว่าช่องทางดิจิทัลยังมีผลกระทบสำคัญทั้งด้านบวกและลบต่อวิธีการเข้าตลาดต่างประเทศที่แตกต่างกันออกไป

## INTRODUCTION

There is a global trend of Small and Medium-sized enterprises (SMEs) becoming mini-multinationals by utilizing Information and Communication Technologies (ICT). Before the 1980s, globalization had been dominated by mostly large multinational enterprises (MNEs) (Knight & Kim, 2009). According to Knight and Cavusgil (2004), there were increasing numbers of born-global SMEs, which sought to become international firms from inception. They emerged as small successful local firms and shortly thereafter appeared serving markets throughout the world. These born-global SMEs became a phenomenon of entrepreneurial start-ups that changed the look of the globalizing world (Burgel & Murray, 2000).

Globalization provides opportunities for firms to take several advantages of the globalization. One of the advantages is the globalization of markets where tastes and preferences of global customers are similar. Another advantage is the globalization of production which is the global sourcing for factors of production (Hill & Hult, 2016). Furthermore, the profusion of technological advancement in internet and communication facilitates SMEs to manage their businesses and it is no longer a major obstacle for SMEs' internationalization (Knight & Cavusgil, 2004).

For many decades, SMEs have been recognized as the main contributors to their countries' economies (Parboteeah & Cullen, 2011). Given the importance of SMEs as the major driving force of the countries' gross domestic products (GDP), countries' policy makers are promoting the SMEs' internationalization to generate their countries' competitiveness (Wright, Westhead, & Ucbasaran, 2007). SMEs in Thailand have long been an essential mechanism to revitalize the country's economy. Thai SMEs accounted for 99.6 percent of Thai private enterprises in 2012, created 77.86 percent of national employment, and generated 42.35 percent of Thailand GDP and 28.4 percent of all the country's exports (Keng, 2012; OSMEP, 2012). Due to rapid globalization, fast changing business environments and the increasing regional economic integration such as ASEAN push Thai SMEs to become more competitive not only in their domestic market but also in the international ones.

According to the Organization for Economic Cooperation and Development OECD (2005), the definition of SME is an independent firm that recruits up to 250 employees, compared to 500 employees in the United States' SME definition. The OECD's study also defines the term e-commerce as business activities conducted over the Internet to sell products and services and delivered offline, or online if the products could be digitized (OECD, 2000), or business directed over computer networks (OECD, 2005).

Laudon and Trever (2016) define e-commerce as 'the internet usage, the Web and mobile apps and browsers which run on mobile devices for commercial transactions among organizations and individuals'. However, the OECD's study forecasts that future business transactions will be e-commerce which has an open structure and low operating cost and normally takes place between businesses (B2B) or between businesses and consumers (B2C) which could bring both buyers and sellers closer in exchanging information and commercial activities. Firms now can easily take advantage of global scale economies of production and external connectivity to international customers.

Based on the office of the Institute for Small and Medium Enterprises Development (ISMED, 1999), the definition of an SME in Thailand is a business that employs no more than 200 employees or has assets not exceeding Baht 200 million, in manufacturing and service sectors. This paper intends to study Thai SMEs which carry on both domestic and international business using ICT which can perform over desktop computers, mobile phones and tablets. Therefore, Thailand's definition of SME is adopted in this study and incorporated with the Zwass (1996) definition of e-commerce which is businesses that utilize ICT as a means to communicate and share business information, maintain customer relations, and conduct transactions with their customers.

The Thailand ICT Policy Framework 2020 set by the government, aims for 95 percent of Thai population connectivity in 2020. E-commerce is growing exponentially (OECD, 2000) and has become a major driver of internet development in some countries. Thailand's introduction of 4G wireless broadband network services in 2015 helps the country to improve the internet connectivity, e-commerce usage, and product/service development. According to the Oxford Business Group (2016), Thailand was ranked 74<sup>th</sup> in the International Telecommunications Union 2015. In March 2016, desktop and mobile usages were 53 and 46.9 percent respectively.

According to an e-commerce survey in Thailand conducted by the Electronic Transactions Development Agency (ETDA, 2015), the total value of business completed through internet technology in 2012 was \$21,269 million USD, and the international market accounted for 19 percent. Despite the fact that several studies were conducted on internationalization of SMEs and their adoption of e-commerce (Awa, Baridam, & Nwibere, 2015; Ghobakhloo, Arias-Aranda, & Benitez-Amado, 2011; Gregory, Karavdic, & Zou, 2007; Hinson & Sorensen, 2006; and Scupola, 2009), few empirical studies analyze the SMEs' modes of entry (MoE) (Burgel & Murray, 2000) in relation to the use of digital channels (DC) for their international business activities. Thus, two questions arise "Do Thai SMEs possess the international business competence (IBC) to perform internationally (IP) in various modes of entry?" and "Which type of DCs do Thai SMEs use to enhance their performance in international businesses?"

The purpose of this study is to extend the understanding of ICT literature in international business. In this study, the relationships between DC of internet technology, SMEs' IBC, IP and foreign MoE will be empirically tested. The sequence of this paper will firstly be a discussion of the traditional theories of internationalization of SMEs, which are the international market entry mode theory and the resource-based view (RBV) theory. Secondly, the conceptual model will be discussed along with proposed hypotheses. Thirdly, the methodology and the analysis will be described. Lastly, conclusion, recommendations, limitations and future research will be presented in the final section.

## **LITERATURE REVIEW**

### ***Modes of Entry to Foreign Markets***

Based on the internationalization theory, firms enter foreign markets in stages or process of gradual development (Johanson & Vahlne, 1977; 1990). This stage theory emphasizes that firms gradually increase their level of involvement and

commitment to foreign markets once the psychic distance has been reduced. This ‘psychic distance’ has been identified as perception of the differences between home and host countries in terms of their culture, language, business practices and many factors which may obstruct their flow of information (Johanson & Vahlne, 1977). The gradual activities of the firm’s international involvement can begin as: 1) passive exporting; 2) active exporting through overseas agents or foreign distributors; 3) commit resources with their human capital and investment into an overseas sales subsidiary; 4) joint ventures; and 5) wholly owned subsidiaries of overseas manufacturing. However, firms that lack market knowledge or perceive a high level psychic distance for a specific country might not follow the stage or process model but get involved in a new market based on their experiences from other countries, or through their pre-existing relationships and business connections (Johanson & Vahlne, 1990). For large companies involved in international businesses, exporting and foreign direct investment (FDI) were commonly implemented.

Advanced internet technology and the globalization of markets have reduced the level of psychic distance and the world has become homogeneous. Hence, SMEs are now willing to enter foreign markets (Nordstorm, 1991). Wright et al. (2007) identified three liabilities with regard to the internationalization of SMEs. They are: 1) newness-lack of experience; 2) smallness-limited capital and human resources; and 3) foreignness-lack of international knowledge. SMEs encounter many choices for internationalization. For example, firms that choose to mitigate risks, minimize cost and have better control over their limited resources would rather conduct international business by exporting (Bell, 1995; Wright et al., 2007).

Due to psychic distance, SMEs tend to rely on market knowledge from overseas agents and distributors (Bell, 1995). Furthermore, SMEs widely have adopted licensing and joint venture when global communication and transportation improved (Nordstorm, 1991). However, Wright et al. (2007) argue that joint ventures are not preferred by SMEs in manufacturing and service sectors, especially when they have limited social and business networks. A study by Lu and Beamish (2001) shows that having a joint venture with a local partner has positive impact on international performance of SMEs. In this study, three MoEs for SMEs to foreign markets are explored: 1) exporting; 2) agents/distributors; 3) joint venture.

### ***International Performance and International Business Competence***

The resource-based view (RBV) theory identifies that firms not only need to possess competitive advantage to compete in the market but firms should also create superior values to sustain growth in the international market. The

sustainable competitive advantages (SCA) can be derived from a firm's core competency which resides in the firm's resources and capabilities (Hill & Hult, 2016; Lu, Zhou, Bruton, & Li, 2010).

Knight & Cavusgil (2004) suggest that the internal capabilities and competence of SMEs are the key determinants of a successful IP. Knight & Kim (2009) studied the successful SMEs' attributes and later constructed them as international business competence (IBC) and found that IBC had positive effects on SMEs' international performance. The IBCs of SMEs were composed of international orientation (IO), international marketing skills (IMS), international market orientation (IMO), and international innovativeness (IIN). This study adopts and empirically tests this IBC construct in Thailand.

International orientation (IO) represents a firm's competency to recognize international opportunities and aggressively react accordingly. To be successful in international business, SMEs not only adopt an international mindset but always seek out and continuously develop competence for international opportunities (Knight & Cavusgil, 2004). Karadeniz and Gocer (2007) also report that successful export performance is positively significantly related to Turkish SMEs' international orientations.

International marketing skills (IMS) refers to the ability of SMEs to create value to satisfy international customers by integrating the firms' marketing skills to implement their international market activities. Prasad, Ramamurthy, and Naidu (2001) believe that international marketing concepts and practices are the cornerstones for the success of a firm's export performance. They report that export performance is significantly influenced by marketing orientation through firms' marketing competencies, and that when firms integrate internet technology with their marketing functions, it enhances firms' export performance.

To acquire SCA, a firm must instill the organizational culture of international market orientation (IMO) characteristics within the firm. Narver and Slater (1990) identify that superior value creation of a firm could come from the three components of marketing orientation (MO), which consist of customer orientation, competitor orientation, and inter-functional coordination. They found the relationship of the firm's MO to be significant to that firm's performance in terms of return on investment, customer retention rate and profitability. Prasad et al. (2001) suggest that firms should take advantage of ICT to strengthen their competencies in IMO so as to be competitive and superior to market-oriented competitors. On the other hand, Lu et al. (2010) found no significant relationship between a firm's capabilities and international performance.

International Innovativeness (IIN) has been linked to SME's internationalization as a value creation for small firms to overcome their liability of being small. O'Cass and Weerawardena (2009) find that the exporting SMEs exhibit greater innovativeness during the process of internationalization. On the other hand, a study of Turkish SMEs found that the greater level of internal SCA that firms possess, and the lower domestic sales growth, would stimulate SMEs to internationalize faster (Karadeniz & Gocer, 2007). Therefore, in this study, SMEs which choose three different modes of entry are hypothesized to attain a positive relationship between their IBC components and international performance, as follows:

- H1: IO has a significant positive relationship with IP when SME adopts MoE:  
(a) exporting, (b) overseas agents and distributors, and (c) joint venture
- H2: IMS has a significant positive relationship with IP when SME adopts MoE:  
(a) exporting, (b) overseas agents and distributors, (c) joint venture
- H3: IMO has a significant positive relationship with IP when SME adopts MoE:  
(a) exporting, (b) overseas agents and distributors, and (c) joint venture
- H4: IIN has a significant positive relationship with IP when SME adopts MoE:  
(a) exporting, (b) overseas agents and distributors, and (c) joint venture

### ***International Performance and Digital Channels***

Laudon and Traver (2016) state that people connect to Internet to chat, consume information, and socialize with their networks. Therefore, firms should have touch points or digital channels (DC) to connect with and tap into their potential customers' networks, in order to reach customers who use various devices many times during the day. DC can be divided into four types which consist of: (a) Web site/applications on different platforms; desktops, tablet and smartphones; (b) Social media which come in the forms of Facebook, Line, Twitter, Blogs, Pinterest, and Instagram; (c) E-mail; and (d) offline media such as printed material and TV & radio. The offline media is excluded since it is not within the scope of this study.

There are additional features and digital services that build on the Internet and the Web and become fundamental to E-commerce. For instance, Web 2.0 features which support digital content, digital communications, and are also considered to be "Social" friendly. Examples of Web 2.0 include Voice over Internet Protocol (VoIP), Internet video Conferencing and Google + (Plus) (Laudon & Traver, 2016). Therefore, this study includes web 2.0 features and services in the questionnaire survey.

Information and Communication Technologies (ICT) have created a phenomenon of substantial market opportunities to all large and small businesses, blurring countries' borders and introducing new forms of business environments. With the ICT infrastructure development and 4G services supported by the government, e-commerce spending was expected to be increasing 18.2 percent annually during 2016 and 2020 (Oxford Business Group, 2016). Prasad et al. (2001) suggest integrating the Internet and Web to the company marketing competencies which will enhance their export performance. Supported by an interview study in Sweden, firms accepted that e-commerce is a must and IT has become everyday activities of these firms (Eriksson, Hultman, & Naldi, 2008). This study then hypothesizes that the digital channel such as a firm's website (DCW) has a positive relationship with SMEs' international performance (IP).

Smartphone penetration in Thailand is 63.4 percent as current users of 30 million units. Thai consumers have become tech-savvy due to availability of mobile web-based applications and platforms (Embassy of India, 2016). With various types of social media and time spent on mobile phone, local businesses prefer connecting and communicating with customers via mobile online technologies (Export.gov, 2016). Therefore, this study hypothesizes that digital channel occurring on mobile phone (DCM) would have a positive relationship with SMEs' international performance (IP).

Embassy of India (2016) analyzed Thailand's IT market and reported that Thais spend on average 176 times per day on their handheld phones to communicate and play games. ETDA (2015) reported that Thai e-commerce enterprises conducted their transactions via Internet more than computer networks. Even though 75 percent of e-commerce firms still conduct their transactions on desktop computers, currently smartphones and tablets are dominating the internet users in shopping on-line (Laudon & Traver, 2016). Hence, SMEs that perform their international business activities which link to internet services (DCIS) are hypothesized to have a positive relationship with SMEs' international performance (IP).

Nowadays, everyone is empowered by internet connectivity with an unlimited flow of information through social networks. Therefore, social networks have major impacts on social media in the marketing field (Srinivasan, 2015). Not only are social networks sources of information for firms looking for foreign business connections, but also of customer and third party online ratings and reviews can affect a firm's online and offline performance (Kotha, Rajgopal, & Venkatachalam, 2004). In previous IB literature, social networks are preferable strategic implementations for SMEs' internationalization to access foreign

resources, information, and market opportunities (Basly, 2007; Ferreira, Santos, & Serra, 2010).

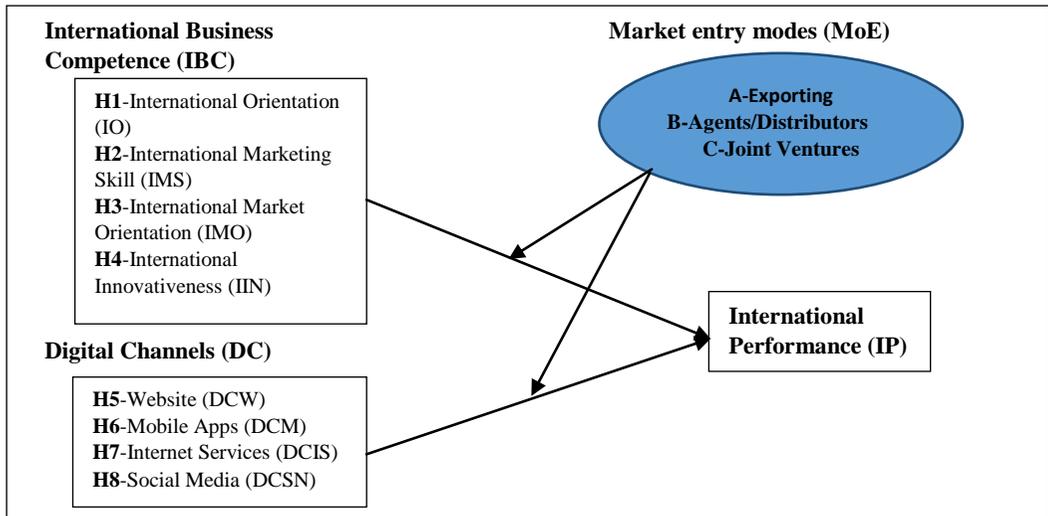
Social networks are very important in getting new knowledge, and exchanging strategic information with both customers and suppliers or partners to gain needed resources and competitive advantages, especially in foreign markets (Gulati & Gargiulo, 1999). SMEs that implement their businesses using digital channels of social network (DCSN) through ICT should perform well in international business. Therefore, in this study, SMEs which choose three different modes of entry are hypothesized to attain positive relationships between their choice of digital channel usage and international performance (IP), as follows:

- H5: DCW has a significant positive relationship with IP when SME adopts MoE: (a) exporting, (b) overseas agents and distributors, and (c) joint venture
- H6: DCM has a significant positive relationship with IP when SME adopts MoE: (a) exporting, (b) overseas agents and distributors, and (c) joint venture
- H7: DCIS has a significant positive relationship with IP when SME adopts MoE: (a) exporting, (b) overseas agents and distributors, and (c) joint venture
- H8: DCSN has a significant positive relationship with IP when SME adopts MoE: (a) exporting, (b) overseas agents and distributors, and (c) joint venture

### ***PROPOSED MODEL: INTERNATIONAL BUSINESS COMPETENCE (DCIBCOM)***

It is concluded from the above literature review that when the IBC of SMEs is subjected to international orientation (IO), international marketing skills (IMS), international market orientation (IMO), and international innovativeness (IIN). The SME's IBC would have a significant relationship to international performance (IP) accompanying by the digital channels (DC) in the forms of websites, mobile applications, internet services and social media, when SMEs select mode of entries in exporting, overseas agents/distributors and /or joint ventures. The DCIBCOM model is proposed to link the SMEs' digital channels (DC), international business competence (IBC) and their international performance (IP) in relation to their modes of entry (MoE) to foreign markets.

**Figure 1: DCIBCOM model**



## METHODOLOGY

To investigate the proposed model, quantitative analysis is used to identify the significant relationship of firms' IP, IBC on DC through three foreign market MoEs. The questionnaire was developed with seven-point Likert scales adopted from preceding studies. The questionnaire was translated from English to Thai, back-translated by professionals, and reviewed for face validity by a group of managers in international business. The complete survey was conducted after modifications based on 30 sets of a pilot study.

This study focuses on IBC of SMEs that are using various touch points or digital channels of ICT in contacting customers domestically and internationally. The scale for DC was adapted from an e-commerce presence map developed by Laudon and Trever (2016). The scales for IBC were adopted from Knight and Kim (2009) and consist of four components: 1) international orientation (IO), 2) international marketing skill (IMS), 3) international innovativeness (IIN), and 4) international market orientation (IMO).

**Table 1: Profile of SMEs**

<b>Business Type:</b>	<b>n = 146</b>	<b>%</b>
Production	30	20.5
Retail Business	34	23.3
Wholesales	33	22.6
Services	46	31.5
Others	3	2.1
<b>Industry Type:</b>		
Textiles, Leather, Jewelry	41	28.1
Chemical and medical industry	33	22.6
Automotive and machinery industry	25	17.2
Tourism and services	21	14.3
Food and agro industry	14	9.6
Logistics industry	12	8.2
<b>Number of employees:</b>		
1-15 Persons	68	46.8
16-25 Persons	36	24.7
26-30 Persons	17	11.6
31-50 Persons	15	10.3
51-200 Persons	10	6.8
<b>International activities:</b>		
Exporting	65	44.5
Agents/Foreign distributors	56	38.4
Joint ventures/Subsidiaries	25	17.2
<b>Fixed Assets:</b>		
Less than ฿30M	77	52.7
฿30M - ฿50M	42	28.8
฿51M - ฿60M	14	9.6
฿61M - ฿100M	5	3.4
฿101M - ฿200M	8	5.5

The 600 questionnaires were randomly distributed at the Export division of the Bo Bae Associations with more than 20,000 members in central Bangkok. These firms were identified as small and medium-sized operations involved in international business to a certain degree. The respondents must be either owners or managers of the firms. With the recommendation from managers who were involved during the pilot study, the researcher added officers for a higher response rate to the questionnaire survey. After three telephone reminders to respondents within two months, 156 questionnaires were returned (10 being

incomplete). The final 146 usable surveys meant a response rate of 24.3 percent. The profile of the respondents is presented in Table 1.

Data analysis of this study was done through statistical computer software. The first step was to examine the confirmatory factor analysis (CFA) to investigate and simplify the related variables for each construct. The CFA results show the acceptable level of loadings which were greater than 0.5 (Ho, 2006). The next step was the reliability test of Cronbach's alpha for the overall internal consistency among the items (Ho, 2006) of each construct. A reliability coefficient of 0.70 and above is considered acceptable (Nunnally, 1978). The results of Cronbach's alpha of both IBC and DC constructs range from 0.749 to 0.964, indicating high internal consistency among the items, as presented in Tables 2 and 3 below.

**Table 2: Scale Convergence of All Constructs**

Dimension	No. of items	Cronbach's Alpha	Standardized Coefficients
International Marketing Skill (IMS)	14	0.964	0.552 to 0.808
International Market Orientation (IMO)	11	0.959	0.578 to 0.818
International Innovativeness (IIN)	6	0.957	0.588 to 0.74
International Performance (IP)	5	0.97	0.774 to 0.818

All 31 items of IBC were checked, and three factors were extracted. The 5 items of IO were found to have high correlation with 9 items of IMS. Hence we combine all 14 items (factor loading range of 0.552 - 0.808) to represent IMS within the same construct, as shown in Table II. The 11 items of the IMO had correlation coefficients ranging from 0.578 - 0.818 which represent the closely related of items. Lastly, 6 items of IIN had correlation coefficients ranging from 0.588 - 0.741. The 24 items of DC were examined and four factors were extracted as shown in Table 3. Thus, new names were given to them as Digital Channels on Web Sites (DCW), Digital Channel on Mobile Applications (DCM), Digital Channel on Internet Services (DCIS) and Digital Channel on Social Networks (DCSN).

## FINDINGS AND CONCLUSIONS

Table 4 and Table 5 reveal that the IP of SMEs not only requires different components of IBC but also needs different support of DC when SMEs conduct their international business in different MoE. In the 146 SMEs which participated in this study, 65 (44.5%) firms are exporting, 56 (38.4%) firms use sales agents and/or foreign distributors, and only 25 (17.2%) firms are operating as joint ventures abroad.

**Table 3: The Constructs of Digital Channels: Reliability Values and Related Component Values**

Digital Channels (DC)	Cronbach's Alpha	No. of items	Item	Related component
Digital Channels on Web Sites (DCW)	0.887	2	Website on Computer	0.809
			Website on Mobile/Tablet	0.831
Digital Channel on Mobile Applications (DCM)	0.913	10	Platform Android Application on Mobile/Tablet	0.619
			Platform Window Phone Application on Mobile/Tablet	0.563
			Platform Blackberry Application on Mobile/Tablet	0.855
			Other Platform Application on Mobile/Tablet	0.723
			Teleconference	0.594
			Search tool	0.611
			Pinterest - Social Media	0.676
			Google + (Plus) - Social Media	0.7
			Blogs - Social Media	0.814
			Other Technologies	0.701
Digital Channel on Internet Services (DCIS)	0.882	8	Short Message Service (SMS)	0.774
			Multimedia Messaging Service (MMS)	0.602
			Instant Messaging Service (IMS)	0.75
			Electronic mail(email)	0.621
			Automatic Response Machine	0.714
			Personal Device Assistant (PDA)	0.602
			Voice over Internet Protocol (VoIP)	0.694
			YouTube	0.615
Digital Channel on Social Networks(DCSN)	0.749	4	Instagram - Social Media	0.754
			Twitter - Social Media	0.573
			Facebook - Social Media	0.492
			Platform iOS Application on Mobile/Tablet	0.524

Hypothesis H1 is about finding the IO relationship to the IP of firms. However, the IO variable is highly correlated and is constructed to the IMS variable, hence H1 is not tested. In all three MoE, despite the result which shows that IMS is not related to IP in the joint venture mode, the IMS is highly significantly related to IP in both modes of exporting and the mode of agents/distributors. Hence, H2a and H2b are supported but H2c is rejected. The IMO is related significantly at  $p < .05$  to IP in the modes of agents/distributors. Therefore, only H3b can be accepted. The IIN is highly related to IP during exporting and joint ventures. Hence, H4a and H4c are supported. Among the three MoE, the results of DC and

IP relationship reveal that out of four channels, both DCW and DCIS have positive relationship in the exporting mode and only DCIS show as being highly significantly related to IP in the mode of agents/distributors. None of the DC has any significant relationships with IP in joint venture MoE. Hence, H5a, H7a and H7b are partially supported.

**Table 4: Summary of the Results**

<b>MoE: Exporting</b>				
Variable	Model with IBC only	Model with DC only	Model with all IVs	Result
International Marketing Skills (IMS)	0.455***		0.401***	H2a: Supported
International Market Orientation (IMO)	-0.022		-0.13	
International Innovativeness (IIN)	0.430***		0.465***	H4a: Supported
<b>DV:</b> International Performance (IP)	R2=0.583***	R2=0.321***	R2 = 0.609***	
Digital Channel on Website (DCW)		0.366**	0.187	H5a: Partial supported
Digital Channel on Mobile Apps (DCM)		-0.119	0.066	
Digital Channel on Internet Services (DCIS)		0.457**	0.055	H7a:Partial supported
Digital Channel on Social Networks (DCSN)		-0.094	-0.099	

<b>MoE: Agents/Foreign Distributors</b>				
Variable	Model with IBC only	Model with DC only	Model with all IVs	Result
International Marketing Skills (IMS)	0.568***		0.569***	H2b: Supported
International Market Orientation (IMO)	0.375**		0.390*	H3b: Supported
International Innovativeness (IIN)	-0.108		-0.133	
<b>DV:</b> International Performance (IP)	R2 = 0.640***	R2 = 0.275***	R2 = 0.660***	
Digital Channel on Website (DCW)		0.096	0.035	
Digital Channel on Mobile Apps (DCM)		-0.046	-0.098	
Digital Channel on Internet Services (DCIS)		0.529***	0.111	H7b: Partial supported
Digital Channel on Social Networks (DCSN)		-0.06	-0.102	

<b>MoE: Joint Venture</b>				
Variable	Model with IBC only	Model with DC only	Model with all IVs	Result
International Marketing Skills (IMS)	0.042		0.059	
International Market Orientation (IMO)	-0.079		-0.065	
International Innovativeness (IIN)	0.807***		0.812***	H4c: Supported
<b>DV:</b> International Performance (IP)	R2 = 0.599***	R2 = 0.208	R2 = 0.626***	
Digital Channel on Website (DCW)		0.037	-0.005	
Digital Channel on Mobile Apps (DCM)		-0.15	-0.177	
Digital Channel on Internet Services (DCIS)		0.161	-0.148	
Digital Channel on Social Networks (DCSN)		0.377	0.255	

**Notes:**\* Significant at  $p < 0.05$ ; \*\*Significant at  $p < 0.01$ ;\*\*\*Significant at  $p < 0.001$

**Table 5: Conclusion of the Results**

MoE:	DC	IBC	$\beta$ and p-value
Exporting	Digital Channel on Website (DCW)	International Marketing Skills (IMS)	0.401***
	Digital Channel on Internet Services (DCIS)	International Innovativeness (IIN)	0.465***
Agents/ Foreign Distributors	Digital Channel on Internet Services (DCIS)	International Marketing Skills (IMS)	0.569***
		International Market Orientation (IMO)	0.390*
Joint Venture	Not Applicable	International Innovativeness (IIN)	0.812***

**Notes:**\* Significant at  $p < 0.05$ ; \*\*Significant at  $p < 0.01$ ;\*\*\*Significant at  $p < 0.001$

The empirical evidence implies that for SMEs to have a better international performance in exporting, they must possess a high level of both IMS and IIN. When SMEs display high levels of innovativeness and marketing skills, they are likely to sustain their competitive advantages and be successful in performing internationally (Kuster & Vila, 2011; O’Cass & Weerawardena, 2009). International business today requires international marketing skills (in this study, the market orientation is included in this construct) to quickly understand customers and competitors, and to guide company innovativeness to achieve business success.

SMEs with an export focus should also take note of the integration between their international marketing skills and international innovativeness to the selective digital channels. The study’s findings reinforce the previous studies that IMS and IIN are imperative for a firm’s internationalization (Prasad et al., 2001). Also, the appropriate DC to support exporting for Thai SMEs are a firm’s website (DCW) and services (DCIS) through internet technology (see Table 2) on computer not mobile applications (DCM), and not yet the social media (DCSN). Supported by Bell’s (1995) qualitative study of 24 firms from Finland, Ireland and Norway, the conclusion from the interviews found that social networks did not influence the internationalization of SMEs or SMEs’ performance.

The empirical results also establish the awareness for SMEs to possess a high level of IMS and IMO to perform more efficiently when they choose foreign agents/distributors as their MoE. Having an adequate level of IMO indicates that SMEs should have good understanding of customers and competitors, and good coordination of functions for international activities (Knight & Kim, 2009). This study’s finding can be supported by Lu and Beamish (2001), which stated that the knowledge gained from international markets will positively improve performance for SMEs. In this study, the majority of SMEs which use the services of foreign agents/distributors have experience in doing business for

between five to twenty years, with an average of 3.85 years. Therefore, the result of IMO capabilities of SMEs may be the knowledge gained from experiences in dealing with their foreign agents and distributors. The study also demonstrates that the appropriate DC of Thai SMEs for dealing with foreign agents and distributors is digital services through internet technology (DCIS) only.

The result of this study, of a strong significant relationship between international performance and international innovativeness, suggests that the important determinant of a firm's performance in a successful joint venture is its international innovativeness. Jeon, Han, and Lee (2006) also find that innovative decision-making is one of the important factors for a firm to adopt e-business (Kuster & Vila, 2011; Lertwongsatien & Wongpinunwatana, 2003) and be successful in joint ventures in the global market. However, none of the digital channels seems to support the joint venture activity. Since innovativeness is highly significantly related to international performance, digital technology should have a major role in facilitating a joint venture. Future study is recommended to look into the joint venture MoE for SMEs, especially the innovation topics such as product and process innovation, market innovation, and strategy innovation.

The results from this study may be subject to generalization limitation due to the sample size and country-specific characteristics. Thailand is transforming from a production hub for exporting to become a production-based for innovative, creative and technological products and more towards serviced-based economy. Thai government promotes this innovation-driven economy as Thailand 4.0 which affects SMEs' in various sectors and industries (BOI, 2017). Future research should aim to investigate more specific industries which achieve direct effects from ICT and its various digital channels.

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