

The Effect of IT Acceptance on Business Performance Mediated by IT Capability, IT Adoption, and Digital Marketing: Empirical Study of Small and Medium Industries Weaving

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ABSTRACT

Technological improvements positively affect increasing business performance across industries, including large, medium, and small scale. Therefore, this study proposes to explain the impact of IT acceptance on business performance mediated by IT capability, IT adoption, and digital marketing in the weaving industry in West Kalimantan, Indonesia. The total population 139, We have transferred a questionnaire survey on 128 small and medium enterprises in the weaving industry that used information technology to support their business using purposive sampling. To answer the research hypothesis, we used the SEM method and partial least square for statistic analysis. The results of the research have confirmed that IT acceptance affects IT capability and adoption. IT adoption affects digital marketing and business performance. Finally, IT capability affects business performance. Meanwhile, IT capabilities do not affect digital marketing, and digital marketing does not affect business performance. This study's outcomes serve as guidelines for weaving SMIs members in planning the alignment of business strategies with information technology support to improve their business performance.

Keywords:

IT Acceptance, IT Capability, IT Adoption, Digital Marketing, Business Performance, Small Medium Enterprise Industry.

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Introduction

The impact of economic globalization and the rate of technological development has accelerated changes in the business environment, made markets more competitive, shortened product life cycles, and reduced profit margins (Wiyadi, 2009). Business players in the small and medium industry are required to innovate sustainably to be competitive. Competitive advantage starts with marketing online. To achieve a competitive advantage, they need information technology capabilities (Chen et al., 2014) because it positively impacts companies, saving operational costs and building a competitive advantage based on information technology (Chinomona, 2013).

Business transformation to an electronic business is an essential process by implementing information systems and Internet-based

information technology (IT/IS), so information technology-based innovation is essential for implementing electronic business strategies (Yu & Tao, 2009). Information systems are considered a developing information technology innovation and are essential in providing opportunities for businesses to increase business efficiency and effectiveness and even gain a competitive advantage (Hoti, 2015).

The small medium industries (SMI) business's performance is opening high business opportunities, increasing business transformation, improving business performance through innovation, marketing, efficiency, quality, and responsiveness to customers (Susanty, Jie, & Helvipriyanto, 2012). Information technology is not a magic item in Indonesia. Along with its development, information technology has changed the previous paradigm into the technology needed

by organizations to support their business performance. The adoption of information technology is the key to success for management to develop and win the competition because currently, companies are required to meet community needs and market share (Nugraha, 2014).

This research explicitly discusses the importance of IT acceptance, IT capability, IT adoption, and digital marketing in improving business performance in SMIs weaving to provide recommendations for frameworks for creating a business performance in SMIs weaving in Indonesia. The IT capability variable in the research of Ho-Chang Chae and V.R. Prybutok (2014) states that there is a significant relationship between IT capabilities and business performance. The IT adoption variable in the research of M Ghobakhloo et al. (2012), states that IT has become an indispensable tool for the daily operations of an organization, and likewise stated in research I Salamah and RD Kusumanto (2017) that the role of IT in the business world is very especially in supporting the marketing process and the efficiency of administrative work, however in general IT adoption is still low. The IT capability variable in JK Nwankpa and Y Roumani's (2016) research states that IT capability has a positive effect on business performance.

Literature Review and Hypotheses Development

1.1. *IT Acceptance on Business Performance*

Resources can be considered as inputs that enable a company to carry out its activities. Internal resources and capabilities determine the strategic choices companies make while competing in their external business environment. The company's capabilities also allow several companies to add value to the customer value chain, develop new products, or expand new markets. Utilize the organization's resources and capabilities to develop a sustainable competitive advantage (Madhani, 2010).

Resources owned by a company are the main determinants of its performance, while according to other researchers, information technology has an impact on organizational performance (Melville, Kraemer, & Gurbaxani, 2004). The use of technology in business management in SMIs can increase innovation and added value to businesspeople. It can be seen from task

suitability or what is called Task Technology Fit (TTF), where the use of information technology will impact business performance if it is appropriate to carry out the tasks it is supporting (Purnomo, 2011).

Organizational decisions to invest in information technology are generally based on several reasons, i.e., demands to cut costs, demand to produce more products without increasing costs, and improve the quality of services or products (Legris, Ingham, & Collerette, 2003). IT capabilities are shaping organizational outcomes in the form of productivity, growth, and innovation. Initial implications for industry in the form of competitive advantage (innovation performance generated from the industry) can be obtained from IT capabilities (Zhu, 2004), and IT capabilities can be utilized for innovation purposes (L. Raymond, Uwizeyemungu, Fabi, & St-Pierre, 2014).

Apart from innovation goals, the industry must identify the role of information technology (IT) in supporting innovation, such as new product development processes and contributions to organizational innovation performance (L. Raymond et al., 2014). Companies with a flexible information technology infrastructure can utilize existing information technology resources to carry out business strategies and support the necessary structural changes (Kim, Shin, Kim, & Lee, 2011). Thus, IT capability will be a valuable asset for the organization in maintaining a competitive advantage in the market. IT management is a centrally controlled or heterogeneous IT function in various companies and is manifested by the gathering of Information Technology processes in planning, investment decision making, coordination, and control. IT management capability is defined as Information Technology staff's ability to manage resources and turn them into business value in an organization (Kim et al., 2011).

1.2. *IT Capability on Business Performance*

IT capabilities have a significant impact on business performance (Liu, Zhao, Wang, & Xiao, 2013), where the use of IT resources by companies will be able to provide users with accurate, timely, and reliable data and information (Mithas, Ramasubbu, & Sambamurthy, 2011). Information Technology Capability is defined as a company's efforts to acquire, deploy and reconfigure IT resources concerning other

resources. Information technology impacts many aspects of large and small businesses, where the concept of a strategic information system consists of IT Technical Capabilities and IT Managerial Capabilities. IT technical capability is referred to as a critical IT component and is a part of IT resources. IT managerial ability is defined as the management's ability to understand, develop, and utilize information technology to support and improve the business. This managerial ability consists of an IT manager's ability to understand business needs, managers' ability to develop applications, coordinate IT activities to support business functions, and anticipate future IT needs (Jun, 2008). The impact of the diffusion of information and communication technology (ICT) in an organization can rapidly change the industry and business economy (Fabiani, Schivardi, & Trento, 2005; Ongori & Migiro Stephen, 2010). New technologies enable and facilitate a wide variety of business activities related to information storage, processing, distribution, transmission, and reproduction.

Research on the relationship between IT capabilities and business performance has been done a lot. A study states that there are still limitations and problems that need to be addressed in further research, which must identify organizational groups with different characteristics such as size, industry, and information in the organization (Chae, Koh, & Prybutok, 2014).

1.3. *IT Adoption on Business Performance*

Information technology has gradually become one of the strategic factors for company development (Soerin, 2015). Many have studied theoretical perspectives on adopting new technologies (Grandón, Nasco, & Mykytyn, 2011). The TOE Framework (technology, organization, and environment) is a model that studies the adoption of information technology from the point of view of company characteristics related to technology and organizations as a driver of innovation. The TOE framework recognizes the significant role of the environmental context, which refers to the industry, competitors, and transactions with the government - in which companies adopt and implement technological innovations (Giotopoulos, Kontolaimou, Korra, & Tsakanikas, 2017).

Information technology acts as a driving force for organizations in increasing competitiveness and

efficiency. Recent empirical studies report inconsistent findings of the impact of Information Technology on organizational performance. Information quality, operating efficiency of business processes, ability to manage and coordinate operational activities, flexibility and company control systems, customer satisfaction, and corporate financial performance (Zeng & Zheng, 2008) impact companies were adopting information technology.

Aspects of communication, access to information, decision making, data management, and knowledge management in organizations are strategic aspects of an organization that require support for information technology (Adeosun, Adeosun, Adetunde, & Adagunodo, 2008). The importance of SMIs in adopting IT is also strengthened by Apulu and Latham (2011). It is stated that the importance of IT adoption by SMIs will provide the ability to provide services and better competitiveness to provide positive value for organizational performance. Apart from that, Hengst and Sol (2001) also argue that the adoption of information technology will provide benefits, namely reducing costs, increasing the ability to communicate and coordinate with external parties to the organization, and business benefits.

1.4. *Digital Marketing on Business Performance*

The adoption of Electronic Marketing (EM) by Small Business Enterprises (SBEs) can improve marketing performance and increase marketing effectiveness through reducing costs resulting from using EM technologies and tools (Internet, e-mail, mobile, others). This cost reduction results from using EM to increase company profitability, which will lead to better marketing effectiveness (Avlonitis & Karayanni, 2000; Furnell & Karweni, 1999; Honeycutt, Flaherty, & Benassi, 1998; Lynn, Lipp, Akgün, & Cortez, 2002)

Web marketing has been increasingly used for commercial activities in electronic, digital, or cyber commerce (Nour, 2006). Web pages are used commercially by companies of all sizes to increase revenue, increasing efficiency, or strengthening competitive advantage. Benefits for commercial companies that use the web include online storefronts for their products, interactive sites, information search facilities, incentivized content, and internet use (Nour, 2006). Meanwhile, the function of marketing is promotion, sales,

delivery, and support (Kotler, Keller, Ang, Tan, & Leong, 2018).

Market competition and business environment are currently changing rapidly, so companies must adopt information technology to improve their business operations (Christmann, Falkner, Horch, & Kett, 2015). Information technology is a company asset in business competition and helps employees to complete their work. Therefore, information technology will include Information Systems, Information and Communication Technology, the internet, and infrastructure, including computer hardware and technology that processes or transmits information to increase individuals and organizations (Ghobakhloo, Hong, Sabouri, & Zulkifli, 2012).

1.5. Hypothesis Development

IT capabilities are seen to shape organizational outcomes in the form of productivity, growth, and innovation. The industry's initial implications in competitive advantage (innovation performance resulting from the industry) can be obtained from IT capabilities (Zhu, 2004). IT capabilities can be utilized for innovation purposes (L. Raymond et al., 2014). Apart from innovation goals, the industry must identify the role of information technology (IT) in supporting innovation, such as new product development processes and contributions to organizational innovation performance (L. Raymond et al., 2014). Companies with a flexible information technology infrastructure can utilize existing information technology resources to carry out business strategies and support the necessary structural changes (Kim et al., 2011). Thus, IT capability will be a valuable asset for the organization in maintaining a competitive advantage in the market. IT management is a centrally controlled or heterogeneous IT function in various companies and is manifested by the gathering of Information Technology processes in planning, investment decision making, coordination, and control. IT management capability is defined as Information Technology staff's ability to manage resources and turn them into business value in an organization (Kim et al., 2011). This study will test the formulated hypotheses:

H1: IT acceptance affects the IT capability.

Information technology has gradually become one of the strategic factors for company development (S. Bipat & Sneller, 2015). Theoretically, much has been studied from a theoretical perspective on

adopting new technologies (Grandón et al., 2011). The TOE Framework (technology, organization, and environment) is a model that studies the adoption of information technology from the point of view of company characteristics related to technology and organizations as a driver of innovation. The TOE framework recognizes the significant role of the environmental context that refers to the industry, competitors, and transactions with the government - in the process by which companies adopt and implement technological innovations (Giotopoulos et al., 2017). This study will test the hypotheses formulated:

H2: IT acceptance affects IT adoption.

IT capability has a significant impact on business performance (Liu et al., 2013). Companies' use of IT resources will provide users with accurate, timely, and reliable data and information (Mithas et al., 2011). Information technology capability is defined as a company's efforts to acquire, deploy, and reconfigure IT resources concerning other resources. Information technology impacts many aspects of large and small businesses, where the concept of a strategic information system consists of IT technical capabilities and IT managerial capabilities. IT technical capability is referred to as a critical IT component and is a part of IT resources. IT managerial ability is defined as the management's ability to understand, develop, and utilize information technology to support and improve the business. This managerial ability consists of an IT manager's ability to understand business needs, managers' ability to develop applications, coordinate IT activities in support of business functions, and anticipate future IT needs (Jun, 2008). The impact of the diffusion of information and communication technology (ICT) in an organization can change the industry and business economy rapidly (Fabiani et al., 2005; Ongori & Migiro Stephen, 2010). New technologies enable and facilitate a wide variety of business activities related to information storage, processing, distribution, transmission, and reproduction.

Research on the relationship between IT capabilities and business performance has been carried out. A study states that there are still limitations and problems that need to be addressed in further research, which must identify organizational groups with different characteristics such as size, industry, and

information in the organization (Chae et al., 2014). This study will test the hypotheses formulated:

H3: IT capability affects digital marketing.

Small and medium industry (SMI) has a role as one of the national economy pillars, focusing on the central and regional governments' attention in its development. One component of concern is the mastery of information technology by industry players. In marketing, the use of information technology in IKM in big cities has become a trend nowadays because it is considered to have diversity in supporting the marketing of SMIs products, which have the characteristics of home/handmade products with a limited production amount (Pane, 2014).

Information technology is an enabler for increasing the efficiency and competitiveness of an organization. Recent empirical studies report inconsistent findings of the impact of Information Technology on organizational performance (Zeng & Zheng, 2008). This study will test the hypotheses formulated:

H4: IT adoption affects digital marketing.

The innovation ability of a company can impact its business performance (Thaker, 2011). Successful innovation is increasingly seen as a contributing factor to higher business performance in some industries and sectors and can strengthen company profits and help companies survive in the market (Gunasekaran, Forker, & Kobu, 2000; Jiménez-Jiménez & Sanz-Valle, 2011). This study will test the hypotheses formulated:

H5: Digital marketing affects business performance.

Advances in cloud computing open up new opportunities for cloud applications (Dubey & Mishra, 2017). The use of cloud applications, namely Facebook, Twitter, YouTube, Instagram, others (Dubey & Mishra, 2017). The relative advantages of implementing cloud computing services can increase business communication speed, the efficiency of inter-company coordination, customer communication, and access to market information mobilization (Armbrust et al., 2010). This study will test the formulated hypotheses:

H6: IT capability affects business performance.

Market competition and business environment are currently changing rapidly, so companies must adopt information technology to improve their business operations (Christmann et al., 2015). Information technology is a company asset in business competition and helps employees to complete their work. Therefore, information technology will include Information Systems, Information and Communication Technology, the internet, and infrastructure, including computer hardware and technology that processes or transmits information to increase individuals and organizations (Ghobakhloo et al., 2012). This study will test the formulated hypothesis:

H7: IT adoption affect business performance

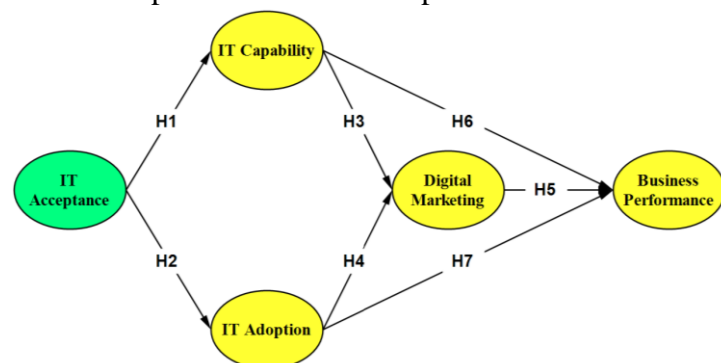


Fig 1. Research Conceptual Model

Method

The data analysis method in this quantitative research uses descriptive analysis method with SEM-PLS as data analysis software.

1.6. Sample and data collection

This study used population 139 primary data collected from all IKM players in West Kalimantan Province. However, only 128 business actors were considered to have adopted IT in running their business, such as e-mail, Instagram, Facebook, and WhatsApp. During the data collection process, the questionnaire was filled directly by the respondent and accompanied by the researcher. Data collection lasted for two months and using a purposive sampling technique.

1.7. Measurement

To measure each construct, we develop and adopt indicators that have been used by several studies, as shown in Table 1.

Table 1. Measurement

Construct	Indicator	References
IT Acceptance	quickly complete, more productive, increased effectiveness, easy to learn, flexible	DeLone (1988), King and He (2006), Bruner and Kumar (2005), Legris et al. (2003); Ha and Stoel (2009); Davis (1989); Venkatesh and Bala (2008), Lee, Kozar, and Larsen (2003), Koufaris (2002)
IT Capability	suitable infrastructure, standardized, transparent, can handle multiple applications, uses it standards, business strategy, competitive priorities, business policies, business opportunities, change in organization, trust, defining strategy, business and it	Bai and Guo (2013), Liu et al. (2013); Kim et al. (2011), Bhatt and Grover (2005), Garrison, Wakefield, and Kim (2015), Bharadwaj, Sambamurthy, and Zmud (1999); Fink and Neumann (2007), Zhang and Lado (2001), Wang and Ahmed (2007).
IT Adoption	benefits, TI user compatibility, TI infrastructure support compatibility, top management support, organizational readiness, information strengthening business services, government support, consumer readiness, vendor support	Alshamaila, Papagiannidis, and Li (2013), Alam and Noor (2009), Ramdani, Kawalek, and Lorenzo (2009), Esteves (2009); Oh et al. (2009), Shiao, Hsu, and Wang (2009), Louis Raymond and Bergeron (2008), Jeon, Han, and Lee (2006), Kaynak, Tatoglu, and Kula (2005), MacGregor Robert and Vrazalic (2005), Grandon and Pearson (2004), Stockdale and Standing (2004), Gibbs and Kraemer (2004)
Digital Marketing	participation in product design, product innovation, information availability, online price negotiation, dynamic pricing, price lists, disintermediation, secure payment, ease of communication, online promotion, consumer participation	Morgan (2012), Ritz, Wolf, and McQuitty (2019), Quinton and Simkin (2017), Todor (2016); Ainin, Parveen, Moghavvemi, Jaafar Noor, and Mohd Shuib Nor (2015), Dahnil, Marzuki, Langgat, and Fabeil (2014), Talukder, Kerrisk, Ingenhoff, Garcia, and Celi (2013), Taiminen (2016), Shaltoni Abdel, West, Alnawas, and Shatnawi (2018), Rathi and Arora (2019)
Business Performance	product innovation, increase in the number of products sold, quality of work, target achievement, timeliness, process innovation, delivery,	Venkatraman and Ramanujam (1986), Prajogo (2016), Sin Leo and Tse Alan (2000), Hannan, Freeman, and Meyer (1976), Diao and Bhattacharya (2008), Briffaut and Saccone (2002), Gibson, Invancevich, and Donnelly (1994), R. G. Cooper (1979), Robert G. Cooper and de Brentani (1991), Ali, Krapfel Jr., and LaBahn (1995), Atuahene-Gima (1995), Chung, Hsu, Tsai, Huang, and Tsai (2012)

Data Analysis and Result

This research's main objective is to identify the influence of IT acceptance on business performance mediated by IT capability acceptance, information technology adoption, and digital marketing. The research model uses

structural equation modeling techniques with the partial least square approach. PLS-SEM is a multivariate technique capable of processing latent variable models, predicting relationships between variables, and testing or predicting theoretical models that have been conceptualized

based on literature (Chin & Newsted, 1999; Sosik, Kahai, & Piovoso, 2009).

The use of IT by 128 IKM Tenun owners as a marketing medium for woven products can be grouped based on their education level. For the Facebook application, 5.46% (7 people) have been used by the elementary education level, 16.40% (21 people) by the SMA / SMK / MA education level, 11 people with junior high school education, 8.59% (5 people) by college education level and 6.25% (8 people) have been used by IKM Tenun owners who have not graduated from school. For the Instagram application, 1.56% (2 people) have been used by the elementary education level, 5.46% (7 people) have been used by the SMA / SMK / MA education level, 3.12% (4 people) have been used by the education level Junior high school, 33.33% (4 people) have used it by higher education levels and 2.34% (3 people) have used it by IKM Tenun owners who have not graduated from school. For the whatsapp application, 14.84% (19 people) have been used by the elementary education level, 29.6% (38 people) have been used by the SMA / SMK / MA education level, 12.5% (16 people) have been used by the education level SLTP, and 3.90% (5 people) have been used by the owners of IKM Weaving who did not finish school. For the Message / SMS application 6.25% (8 people) have been used by the elementary education level, 18.75% (24 people) have been used by the SMA / SMK / MA education level, 4.68% (6 people) have used it level of junior high school education, has been used 2.34% (3 people) by the level of higher education. For the e-Mail application, 1.56% (2 people) have been used by the SMA / SMK / MA education level, and 3.12% (4 people) have been used by the tertiary education level.

The measurement model is first tested to check the reliability and validity of construct measures, followed by structural model analysis to obtain path coefficients between constructs. The measurement model and structural model use the second-order approach.

1.8. *The Goodness of Fit Data*

The results of the confirmatory factor analysis with the second-order are presented in Table 2. The results of the initial testing of the research model, some indicators had a loading factor value of less than 0.5, so they were excluded from the model. All loading factor and loading factor values on the second-order between the indicators and dimensions are statistically significant—the fit measure results in a satisfactory model fit. Besides, the extracted average variance value is between 0.603 to 0.832. These values are all above the recommended level of 0.50 (Fornell & Larcker, 1981). The composite reliability (CR) value exceeded 0.70 for each of the five constructs (Hair Joseph, Risher Jeffrey, Sarstedt, & Ringle Christian, 2019). Furthermore, all item loadings on the observed variables are significant and exceed 0.50 (Steenkamp & van Trijp, 1991). Based on the model’s measurement results, we believe that the measurement scale’s convergent validity has been achieved.

Correlations between constructs were calculated to confirm the discriminant validity results (Anderson & Gerbing, 1988). The results show that each variable’s discriminant validity has a correlation score ranging from 0.719 to 0.902; the value is still below 0.95 (Fornell & Larcker, 1981). Overall, the results show the reliability and validity of the second-order factors are satisfactory.

Tabel 2. The Goodness of Fit Data

Constructs	Dimensi	SLF	Code	SLF	CR	CA	AVE
IT Acceptance	Perceived Usability	0.887	PTI1	0.794	0.868	0.772	0.688
			PTI2	0.890			
			PTI3	0.801			
			PTI4	NV			
			PTI5	NV			
			PTI6	NV			
	Perceived Ease of Use	0.831	PTI7	0.900	0.897	0.771	0.813
			PTI8	NV			
			PTI9	NV			
			PTI10	0.904			
			PTI11	NV			
			PTI12	NV			

Constructs	Dimensi	SLF	Code	SLF	CR	CA	AVE
IT Capability	IT Infrastructure	0.870	KTI1	0.792	0.888	0.843	0.615
			KTI2	0.820			
			KTI3	NV			
			KTI4	0.788			
			KTI5	0.790			
			KTI6	0.727			
	IT Experience	0.956	KTI7	0.888	0.955	0.948	0.624
			KTI8	0.910			
			KTI9	0.933			
			KTI10	0.907			
			KTI11	0.848			
	Infrastructure connection	0.935	KTI12	0.875	0.926	0.881	0.808
			KTI13	0.900			
			KTI14	0.921			
IT Adoption	Technology	0.874	ATI1	0.761	0.863	0.764	0.678
			ATI2	0.854			
			ATI3	0.851			
	Organization	0.929	ATI4	0.855	0.913	0.858	0.779
			ATI5	0.911			
			ATI6	0.881			
	Environment	0.779	ATI7	NV	0.819	0.670	0.603
			ATI8	0.764			
			ATI9	0.826			
			ATI10	0.736			
Digital Marketing	Product	0.881	PD1	0.851	0.889	0.812	0.727
			PD2	0.873			
			PD3	0.834			
			PD4	NV			
	Price	0.874	PD5	0.818	0.868	0.770	0.686
			PD6	0.869			
			PD7	0.797			
	Place	0.823	PD8	0.895	0.880	0.727	0.786
			PD9	0.878			
			PD10	NV			
	Promotion	0.881	PD11	0.870	0.88	0.790	0.700
			PD12	0.851			
			PD13	0.796			
Business Performance	Effectiveness	0.870	KB1	0.755	0.840	0.713	0.637
			KB2	0.868			
			KB3	0.768			
	Efficiency	0.873	KB4	NV	0.909	0.799	0.832
			KB5	0.905			
			KB6	0.919			
	Adaptation	0.885	KB7	0.900	0.892	0.758	0.805
			KB8	0.895			
			KB9	NV			

NV: not valid

Table 3. Fornell-Larcker Criterion

Z1.3	Y2	Z1.1	Z1.2	Y3.2	Y1.3	Y1.1	Y1	Z	Y2.3	Y2.2	Y3	X	Y1.2	X1.1	X1.2	Y3.1	Y3.4	Y2.1	Y3.3	
Z1.3	0.897																			
Y2	0.637	0.719																		
Z1.1	0.642	0.660	0.798																	
Z1.2	0.704	0.605	0.609	0.912																
Y3.2	0.402	0.550	0.413	0.434	0.828															
Y1.3	0.513	0.736	0.545	0.533	0.404	0.899														
Y1.1	0.536	0.684	0.529	0.460	0.399	0.721	0.784													
Y1	0.607	0.763	0.621	0.577	0.456	0.935	0.870	0.790												
Z	0.885	0.725	0.870	0.873	0.476	0.607	0.582	0.688	0.753											
Y2.3	0.455	0.779	0.489	0.467	0.521	0.452	0.482	0.491	0.538	0.776										
Y2.2	0.595	0.929	0.550	0.505	0.470	0.776	0.681	0.772	0.628	0.604	0.883									
Y3	0.457	0.672	0.496	0.492	0.874	0.495	0.479	0.556	0.551	0.640	0.568	0.736								
X	0.454	0.604	0.287	0.395	0.473	0.499	0.549	0.553	0.427	0.542	0.553	0.579	0.742							
Y1.2	0.605	0.701	0.623	0.583	0.447	0.885	0.717	0.956	0.690	0.435	0.698	0.549	0.492	0.898						
X1.1	0.425	0.459	0.207	0.348	0.388	0.392	0.445	0.439	0.366	0.409	0.446	0.486	0.887	0.386	0.830					
X1.2	0.351	0.593	0.295	0.332	0.432	0.476	0.504	0.521	0.371	0.535	0.511	0.516	0.831	0.469	0.482	0.902				
Y3.1	0.451	0.682	0.533	0.517	0.684	0.500	0.477	0.556	0.573	0.613	0.568	0.881	0.492	0.547	0.390	0.465	0.853			
Y3.4	0.394	0.548	0.349	0.366	0.663	0.409	0.403	0.463	0.421	0.576	0.491	0.881	0.502	0.455	0.454	0.408	0.706	0.839		
Y2.1	0.583	0.874	0.673	0.597	0.451	0.632	0.584	0.675	0.709	0.491	0.747	0.554	0.647	0.330	0.502	0.604	0.372	0.823	0.823	
Y3.3	0.310	0.525	0.415	0.366	0.675	0.385	0.363	0.434	0.418	0.485	0.409	0.823	0.459	0.438	0.469	0.495	0.605	0.664	0.486	0.886

1.9. Hypotheses Testing

The second step in PLS is a structural model measurement to answer the hypothesis of IT acceptance on IT capability and IT adoption. IT capability and IT adoption of digital marketing. Finally, the influence of IT capability, IT adoption, and digital marketing on business performance.

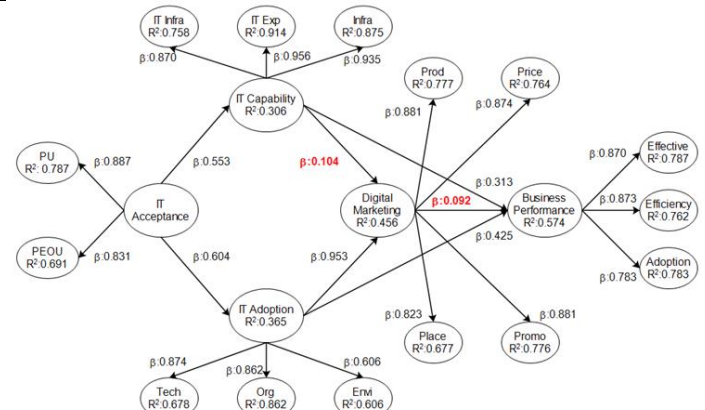


Fig 2. Full Model Structural

Before testing the hypothesis, because it uses the second-order approach, we need to verify whether the first-order construct can be conceptually expressed by the second-order (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). Table 4 illustrates that the first-order construct has a significant relationship with the second-order construct.

Table 4. Establishment of second-order constructs

2nd order construct	1st-order construct	Std	T-Stats	p-values	R ²
Perceived Usability	IT Acceptance	0.887	38.304	0.000	0.787
Perceived Ease of Use	IT Acceptance	0.831	30.226	0.000	0.691
IT Infrastructure	IT Capability	0.870	34.146	0.000	0.758
IT Experience	IT Capability	0.956	121.919	0.000	0.914
Infrastructure connection	IT Capability	0.935	68.806	0.000	0.875
Technology	IT Adoption	0.874	40.912	0.000	0.763
Organization	IT Adoption	0.929	81.584	0.000	0.862
Environment	IT Adoption	0.779	17.248	0.000	0.606
Product	Digital Marketing	0.881	40.416	0.000	0.777
Price	Digital Marketing	0.874	30.723	0.000	0.764
Place	Digital Marketing	0.823	23.158	0.000	0.677
Promotion	Digital Marketing	0.881	34.402	0.000	0.776
Effectiveness	Business Performance	0.870	18.793	0.000	0.757
Efficiency	Business Performance	0.873	23.914	0.000	0.762
Adaptation	Business Performance	0.885	29.677	0.000	0.783

Table 5. Hypotheses Testing

Path	Std	T-Stats	p-values	Decision	R ²
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H1. IT Acceptance → IT Capability	0.553	8.005	0.000	Accept	0.306
H2. IT Acceptance → IT Adoption	0.604	9.271	0.000	Accept	0.365
H3. IT Capability → Digital Marketing	0.104	0.919	0.358	Reject	0.456
H4. IT Adoption → Digital Marketing	0.593	6.581	0.000	Accept	
H5. IT Capability → Business Performance	0.313	3.657	0.000	Accept	
H6. IT Adoption → Business Performance	0.425	4.057	0.000	Accept	0.574
H7. Digital Marketing → Business Performance	0.092	0.970	0.332	Reject	

Based on the structural model analysis (Figure 2), the five hypotheses tested are acceptable. In comparison, the two hypotheses are rejected, namely IT capability to a digital marketing (H3) and digital marketing to business performance (H7). The calculation results produce four linear equations.

The first model, IT acceptance of IT capability, produces a positive and significant direction ($\beta_1 = 0.553$, T-stats 8.005, P-value 0.000) to accept H1. IT acceptance contributes to IT capability by 30.6% ($R^2 = \text{moderate}$). The second model, IT acceptance towards IT adoption, produces a positive and significant direction ($\beta_2 = 0.604$, T-stats 9,271, P-value 0.000) so that H2 is accepted. IT acceptance contributes to IT adoption by 36.5% ($R^2 = \text{moderate}$). The third model is IT capability and IT adoption of digital marketing. IT capability to digital marketing resulted in a positive and insignificant direction ($\beta_3 = 0.104$, T-stats 0.919, P-value 0.358) so that H3 was rejected. Meanwhile, IT adoption of digital marketing resulted in a positive and significant direction ($\beta_4 = 0.593$, T-stats 6,581, P-value 0.000) so that H4 is accepted. Simultaneously, IT capability and IT adoption contribute to digital marketing by 45.6% ($R^2 = \text{moderate}$). The fourth model is IT capability, IT adoption, and digital marketing towards business performance. IT capability towards business performance resulted in a positive and significant direction ($\beta_5 = 0.313$, T-stats 3.657, P-value 0.000) so that H5 was accepted. IT adoption of business performance generates a positive and significant direction ($\beta_6 = 0.425$, T-stats 4.057, P-value 0.000) to accept H6. Digital marketing on business performance produces a positive and insignificant direction ($\beta_7 = 0.092$, T-stats 0.970, P-value 0.332) so that H7 is rejected. IT capability, IT adoption, and digital marketing contributed to an increase in business performance by 57.4% ($R^2 = \text{moderate}$).

Discussion

Small and Medium Industries in Indonesia have an essential role and become the backbone of the national economy. It is based on its existence as

the majority sector of the industrial population in Indonesia. The local government and central government share efforts to support the growth of SMIs. One of the strategies implemented is to encourage SMIs to collaborate by using information technology to strengthen SMIs competitiveness. Excellent resources are part of the underlying competitive advantage through a different process. Information technology resources have a positive effect on company performance and small and medium industries. Information technology plays a role in changing the process of doing business, making it easy to access information, improving services, and providing new opportunities and challenges for SMIs development.

Information technology is a set of tools that help business actors complete work and tasks related to information processing, store information, and transmit information. According to Weill (1992), there are three categories of IT use objectives, i.e., supporting transactional, informational, and strategic activities. SMIs members need to realize and understand that information technology plays a strategic role in providing competitive added value to their business processes. Therefore, the central and local governments synergize, supporting infrastructure, academics, and scholars in providing knowledge and skills to adapt to rapid IT developments.

Information technology for SMIs will encourage new economic behavior in a society that has developed and undergoes a shift in line with the business orientation that has shifted to a more complex and globally competitive direction. Limited capabilities in information technology are not only a phenomenon for organizations but also individuals. SMIs weaving actors come from different socioeconomic levels and educational levels to not be equated with information technology capabilities. Some need a long time to use IT tools, but many also only need a short time to adapt to developments in information technology. However, with the shift in business behavior in the current digital era, it is inevitable

for all business actors to have information technology that drives their business performance. The rapid development of information technology encourages businesspeople to plan business strategies in line with information technology. SMIs weaving can use information technology to improve business operations to be more efficient, and therefore changes in business processes are required. Changing business processes by utilizing information technology requires the support of standard information technology infrastructure to make it easier to carry out maintenance to prevent downtime. Besides, maintaining access to information is an important matter that must be considered because data cannot be lost, deleted, or damaged.

Strategies in building information technology capabilities at IKM Weaving can be through alignment of business strategies and IT strategies to create an advantage over SME weaving competitors. A business strategy can be decided based on SME weaving, and producing quality information requires the collaboration of information technology elements. SME weaving leaders must know what business strategies are genuinely in line with business needs and what information technology is currently available to support SME weaving business goals. Besides, weaving SMIs members have at least some knowledge related to business strategies and information technology.

The adoption of information technology by small and medium enterprises, which has been widely researched previously, shows quite good. SMIs Weaving has mostly used the internet in administration, promotion, and marketing activities. Information technology is beneficial for SMIs weaving in marketing its products because using information technology will obtain a broader market area, especially international market share. This capability shows an indication of the increasing competitiveness of woven SMIs. When weaving SMIs adopt IT, they can follow the needs of their environment. The larger the industrial scale, the more IT will follow the scale of the industry. The IT adoption process falls into the low complexity category. It is because the application used is straightforward: limited for marketing. To increase their competitiveness, they need a strategy to grow IT adoption by collaborating with vendors in application development, user training, and maintenance. The

development of applications and audience databases is adjusted to develop information technology and value-added innovations for woven SMIs. Currently, the direction of information technology has started from social media to mobile to real-time applications.

Promotion and marketing of business in today's digital era is no longer as simple as advertising business products in the media and waiting for potential customers. Currently, the media used are not only limited to newspapers, radio, and television. Media in the digital era is more varied and requires quality marketing content because it will determine online communication's success or failure.

Digital media has access to information without restrictions on time and place, so that the internet is needed to access it. These conditions change the way the audience (buyers) shop and buy from what was previously conventional. Product offerings from the industry have led to audience-specific needs and are personalized as the audience believes more in what the media is saying. SMIs weaving can start by creating a website as a medium to introduce its products globally. They can also take advantage of Facebook Ads, LinkedIn, Twitter, Instagram, YouTube, e-mail marketing to direct consumers to the SMIs weaving website.

Sales made with digital media will affect the selling price of the product. Because sales are not made through physical stores, the product's selling price is lower than the physical store's selling price. The existence of the SMIs weaving product website or the online shop in digital media can be optimized by search engine optimization (SEO) so that it is easy to find and the customer can get the desired product information.

Information technology applications in business in today's digital era have played a role in improving operational performance and business management to gain a competitive advantage. Business performance management can help SMIs weaving adapt continuously to align the business to survive and grow.

The strategy in building business performance at woven SMIs is to identify the main factors that can provide added value, including customer satisfaction and excellent quality of woven products. Asset SMIs members to allocate resources used in business processes redesigned

following these resources' allocation. The availability of information resources for SMIs weaving and infrastructure to collect and integrate data from various sources, including data storage systems, such as data warehouses and Datamart. It is adjusting applications that can support information services to both internal and external parties of the weaving SME to correct information users' decisions.

Previous research has also stated that IT capabilities to some extent determine business performance and IT Adoption contributes to improving business performance.

Implications and Conclusions

This study's theoretical implication shows that selecting appropriate information technology and resources can provide added value and services to its users. Information technology resources are acceptable for adoption when they are believed to be business supporters that can increase competitiveness and significantly affect organizational productivity. It refers to previous research related to the importance of business performance in strategic management (Venkatraman & Ramanujam, 1986). This study's results are reinforced by researchers Santhanam and Hartono (2003), who show that organizations' ability to utilize information technology can increase organizational performance (Soerin Bipat, Sneller, Visser, & Rouwelaar, 2018).

The results also show that improving business performance in woven SMIs in the current digital economy requires organizations to have the ability to manage and organize information technology resources that are aligned between business strategy and information technology. This alignment will be able to create added value and increase business performance. Business performance management has provided value to organizations to achieve alignment and, at the same time, an effective way of creating and implementing business strategies. (Frolick & Ariyachandra, 2006).

This study indicates that business performance in small and medium industries can be improved from an operational management perspective with information technology and business alignment. SMIs weaving is ready to accept and adopt information technology in business processes because many SMIs Weaving actors have used information technology to provide services to

audiences (consumers). The SMIs weaving environment will quickly accept the adoption of information technology if it has easy use, provides benefits, and provides added value to the organization.

The acceptance and adoption of information technology in business processes will correlate with the capabilities of information technology. Information technology is a driver of business performance if SMIs can manage data, manage business process services, and distribute information to users. Therefore, an IT infrastructure is needed according to the SMIs environment, a leader who knows business strategy and the alignment of information technology and business relationships.

Along with the current development of information technology, where business competition is getting bigger in marketing products, weaving SMIs must develop strategies to market their products through the internet. Digital marketing provides communicative services based on relationships with customers to provide information on woven products, providing answers to questions asked, making it easier to make order transactions, others. For this reason, in Figure 3, we can see a framework that can be used by woven SMIs to create a business performance. Finally, we conclude that to create business performance in woven SMIs, they can pay attention to the picture framework below.

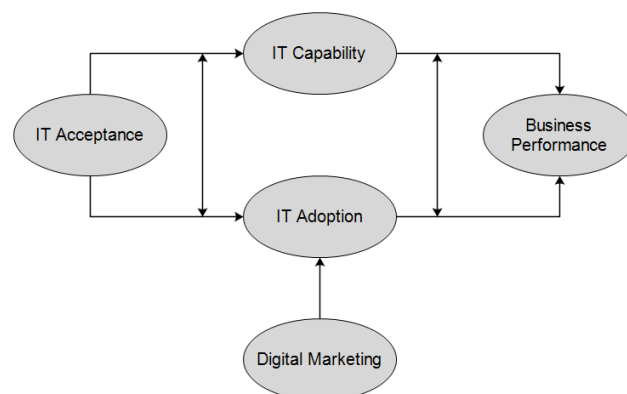


Fig 3. Recommendation to Increase Business Performance in SMIs Weaving

Limitations and Further Research

This study uses an empirical study in West Kalimantan, Indonesia, with a population of 139 SMIs and 128 SMIS who use information technology and fill out questionnaires. The information technology used is Facebook, Instagram, WhatsApp, e-mail, SMS. For further

research, it is expected to take samples from SMIs actors outside the province of West Kalimantan, Indonesia. Furthermore, we can explore other factors that have been studied in this study, that is the digital marketing capability for small and medium industries in Indonesia.

References

- [1] Adeosun, O. O., Adeosun, T. H., Adetunde, I. A., & Adagunodo, E. R. (2008, 20-22 Dec. 2008). Strategic Application of Information and Communication Technology for Effective Service Delivery in Banking Industry. Paper presented at the 2008 International Conference on Computer and Electrical Engineering.
- [2] Ainin, S., Parveen, F., Moghavvemi, S., Jaafar Noor, I., & Mohd Shuib Nor, L. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*, 115(3), 570-588. doi:10.1108/IMDS-07-2014-0205
- [3] Alam, S. S., & Noor, M. K. M. (2009). ICT adoption in small and medium enterprises: An empirical evidence of service sectors in Malaysia. *International Journal of Business and Management*, 4(2), 112-125.
- [4] Ali, A., Krapfel Jr., R., & LaBahn, D. (1995). Product Innovativeness and Entry Strategy: Impact on Cycle Time and Break-even Time. *Journal of Product Innovation Management*, 12(1), 54-69. doi:https://doi.org/10.1111/1540-5885.t01-1-1210030
- [5] Alshamaila, Y., Papagiannidis, S., & Li, F. (2013). Cloud computing adoption by SMEs in the north east of England: A multi-perspective framework. *Journal of Enterprise Information Management*, 26(3), 250-275. doi:10.1108/17410391311325225
- [6] Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- [7] Apulu, I., & Latham, A. (2011). Drivers for information and communication technology adoption: A case study of Nigerian small and medium sized enterprises. *International Journal of Business and Management*, 6(5), 51.
- [8] Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., . . . Stoica, I. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50-58.
- [9] Atuahene-Gima, K. (1995). An Exploratory Analysis of the Impact of Market Orientation on New Product Performance. *Journal of Product Innovation Management*, 12(4), 275-293. doi:https://doi.org/10.1111/1540-5885.1240275
- [10] Avlonitis, G. J., & Karayanni, D. A. (2000). The Impact of Internet Use on Business-to-Business Marketing: Examples from American and European Companies. *Industrial Marketing Management*, 29(5), 441-459. doi:https://doi.org/10.1016/S0019-8501(99)00071-1
- [11] Bai, B., & Guo, Z. Q. (2013). The Evolution of Adaptive IT Capability Based on Agent-Based Simulation: From Routines Perspective. Paper presented at the Applied Mechanics and Materials.
- [12] Bharadwaj, A., Sambamurthy, V., & Zmud, R. (1999). IT capabilities: theoretical perspectives and empirical operationalization. Paper presented at the International Conference on Information Systems (ICIS).
- [13] Bhatt, G. D., & Grover, V. (2005). Types of Information Technology Capabilities and Their Role in Competitive Advantage: An Empirical Study. *Journal of Management Information Systems*, 22(2), 253-277. doi:10.1080/07421222.2005.11045844
- [14] Bipat, S., & Sneller, L. (2015, 13-15 May 2015). A theoretical examination of constructs underlying information technology capability. Paper presented at the 2015 IEEE 9th International

Conference on Research Challenges in Information Science (RCIS).

- [15] Bipat, S., Sneller, L., Visser, J., & Rouwelaar, H. (2018). Understanding the Relation between Information Technology Capability and Organizational Performance.
- [16] Briffaut, J. P., & Saccone, G. (2002). Business performance sustainability through process modelling. *Measuring Business Excellence*, 6(2), 29-36. doi:10.1108/13683040210431446
- [17] Bruner, G. C., & Kumar, A. (2005). Explaining consumer acceptance of handheld Internet devices. *Journal of Business Research*, 58(5), 553-558. doi:https://doi.org/10.1016/j.jbusres.2003.08.002
- [18] Chae, H.-C., Koh, C. E., & Prybutok, V. R. (2014). Information Technology Capability and Firm Performance
- [19] Contradictory Findings and Their Possible Causes. *MIS quarterly*, 38(1), 305-326. doi:10.2307/26554879
- [20] Chen, Y., Wang, Y., Nevo, S., Jin, J., Wang, L., & Chow, W. S. (2014). IT capability and organizational performance: the roles of business process agility and environmental factors. *European Journal of Information Systems*, 23(3), 326-342. doi:10.1057/ejis.2013.4
- [21] Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. *Statistical strategies for small sample research*, 1(1), 307-341.
- [22] Chinomona, R. (2013). Business owner's expertise, employee skills training and business performance: A small business perspective. *Journal of Applied Business Research (JABR)*, 29(6), 1883-1896. doi:https://doi.org/10.19030/jabr.v29i6.8224
- [23] Christmann, C., Falkner, J., Horch, A., & Kett, H. (2015). Identification of IT security and legal requirements regarding cloud services. *Cloud Computing*, 16.
- [24] Chung, Y. C., Hsu, Y. W., Tsai, S. C., Huang, H. L., & Tsai, C. H. (2012). The correlation between business strategy, information technology, organisational culture, implementation of CRM, and business performance in a high-tech industry. *South African Journal of Industrial Engineering*, 23, 1-15. Retrieved from http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2224-78902012000200003&nrm=iso
- [25] Cooper, R. G. (1979). The Dimensions of Industrial New Product Success and Failure. *Journal of Marketing*, 43(3), 93-103. doi:10.1177/002224297904300310
- [26] Cooper, R. G., & de Brentani, U. (1991). New industrial financial services: What distinguishes the winners. *Journal of Product Innovation Management*, 8(2), 75-90. doi:https://doi.org/10.1016/0737-6782(91)90002-G
- [27] Dahnil, M. I., Marzuki, K. M., Langgat, J., & Fabeil, N. F. (2014). Factors Influencing SMEs Adoption of Social Media Marketing. *Procedia - Social and Behavioral Sciences*, 148, 119-126. doi:https://doi.org/10.1016/j.sbspro.2014.07.025
- [28] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS quarterly*, 13(3), 319-340. doi:10.2307/249008
- [29] DeLone, W. H. (1988). Determinants of Success for Computer Usage in Small Business. *MIS quarterly*, 12(1), 51-61. doi:10.2307/248803
- [30] Diao, Y., & Bhattacharya, K. (2008, 7-11 April 2008). Estimating business value of IT services through process complexity analysis. Paper presented at the NOMS 2008 - 2008 IEEE Network Operations and Management Symposium.
- [31] Dubey, A. K., & Mishra, V. (2017, 11-13 Nov. 2017). Performance analysis of cloud applications using cloud analyst. Paper presented at the 2017 7th International Conference on Communication Systems and Network Technologies (CSNT).
- [32] Esteves, J. (2009). A benefits realisation road-map framework for ERP usage in small and medium-sized enterprises.

- Journal of Enterprise Information Management, 22(1/2), 25-35. doi:10.1108/17410390910922804
- [33] Fabiani, S., Schivardi, F., & Trento, S. (2005). ICT adoption in Italian manufacturing: firm-level evidence. *Industrial and Corporate Change*, 14(2), 225-249. doi:10.1093/icc/dth050
- [34] Fink, L., & Neumann, S. (2007). Gaining agility through IT personnel capabilities: The mediating role of IT infrastructure capabilities. *Journal of the association for information systems*, 8(8), 25.
- [35] Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382-388. doi:10.1177/002224378101800313
- [36] Frolick, M. N., & Ariyachandra, T. R. (2006). Business Performance Management: One Truth. *Information Systems Management*, 23(1), 41-48. doi:10.1201/1078.10580530/45769.23.1.20061201/91771.5
- [37] Furnell, S. M., & Karweni, T. (1999). Security implications of electronic commerce: a survey of consumers and businesses. *Internet Research*, 9(5), 372-382. doi:10.1108/10662249910297778
- [38] Garrison, G., Wakefield, R. L., & Kim, S. (2015). The effects of IT capabilities and delivery model on cloud computing success and firm performance for cloud supported processes and operations. *International Journal of Information Management*, 35(4), 377-393. doi:https://doi.org/10.1016/j.ijinfomgt.2015.03.001
- [39] Ghobakhloo, M., Hong, T. S., Sabouri, M. S., & Zulkifli, N. (2012). Strategies for successful information technology adoption in small and medium-sized enterprises. *Information*, 3(1), 36-67.
- [40] Gibbs, J. L., & Kraemer, K. L. (2004). A Cross-Country Investigation of the Determinants of Scope of E-commerce Use: An Institutional Approach. *Electronic Markets*, 14(2), 124-137. doi:10.1080/10196780410001675077
- [41] Gibson, J. L., Invancevich, J. M., & Donnelly, J. (1994). *Organization: Behavior, Structure and Process*. Homewood, Richard D. Irwin, Boston.
- [42] Giotopoulos, I., Kontolaimou, A., Korra, E., & Tsakanikas, A. (2017). What drives ICT adoption by SMEs? Evidence from a large-scale survey in Greece. *Journal of Business Research*, 81, 60-69. doi:https://doi.org/10.1016/j.jbusres.2017.08.007
- [43] Grandón, E. E., Nasco, S. A., & Mykytyn, P. P. (2011). Comparing theories to explain e-commerce adoption. *Journal of Business Research*, 64(3), 292-298. doi:https://doi.org/10.1016/j.jbusres.2009.11.015
- [44] Grandon, E. E., & Pearson, J. M. (2004). Electronic commerce adoption: an empirical study of small and medium US businesses. *Information & Management*, 42(1), 197-216. doi:https://doi.org/10.1016/j.im.2003.12.010
- [45] Gunasekaran, A., Forker, L., & Kobu, B. (2000). Improving operations performance in a small company: a case study. *International Journal of Operations & Production Management*, 20(3), 316-336. doi:10.1108/01443570010308077
- [46] Ha, S., & Stoel, L. (2009). Consumer e-shopping acceptance: Antecedents in a technology acceptance model. *Journal of Business Research*, 62(5), 565-571. doi:https://doi.org/10.1016/j.jbusres.2008.06.016
- [47] Hair Joseph, F., Risher Jeffrey, J., Sarstedt, M., & Ringle Christian, M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. doi:10.1108/EBR-11-2018-0203
- [48] Hannan, M. T., Freeman, J. H., & Meyer, J. W. (1976). Specification of Models for Organizational Effectiveness. *American Sociological Review*, 41(1), 136-143. doi:10.2307/2094377
- [49] Hengst, M. d., & Sol, H. G. (2001, 6-6 Jan. 2001). The impact of information and communication technology on

interorganizational coordination. Paper presented at the Proceedings of the 34th Annual Hawaii International Conference on System Sciences.

- [50] Honeycutt, E. D., Flaherty, T. B., & Benassi, K. (1998). Marketing Industrial Products on the Internet. *Industrial Marketing Management*, 27(1), 63-72. doi:[https://doi.org/10.1016/S0019-8501\(97\)00038-2](https://doi.org/10.1016/S0019-8501(97)00038-2)
- [51] Hoti, E. (2015). The technological, organizational and environmental framework of IS innovation adaption in small and medium enterprises. Evidence from research over the last 10 years. *International Journal of Business and Management*, 3(4), 1-14.
- [52] Jeon, B. N., Han, K. S., & Lee, M. J. (2006). Determining factors for the adoption of e-business: the case of SMEs in Korea. *Applied Economics*, 38(16), 1905-1916. doi:[10.1080/00036840500427262](https://doi.org/10.1080/00036840500427262)
- [53] Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, 64(4), 408-417. doi:<https://doi.org/10.1016/j.jbusres.2010.09.010>
- [54] Kaynak, E., Tatoglu, E., & Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs: Evidence from an emerging market. *International Marketing Review*, 22(6), 623-640. doi:[10.1108/02651330510630258](https://doi.org/10.1108/02651330510630258)
- [55] Kim, G., Shin, B., Kim, K. K., & Lee, H. G. (2011). IT capabilities, process-oriented dynamic capabilities, and firm financial performance. *Journal of the association for information systems*, 12(7), 1. doi:[10.17705/1jais.00270](https://doi.org/10.17705/1jais.00270)
- [56] King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management*, 43(6), 740-755. doi:<https://doi.org/10.1016/j.im.2006.05.003>
- [57] Kotler, P., Keller, K. L., Ang, S. H., Tan, C. T., & Leong, S. M. (2018). *Marketing management: an Asian perspective*: Pearson.
- [58] Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior. *Information Systems Research*, 13(2), 205-223. doi:[10.1287/isre.13.2.205.83](https://doi.org/10.1287/isre.13.2.205.83)
- [59] Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for information systems*, 12(1), 50. doi:[10.17705/1CAIS.01250](https://doi.org/10.17705/1CAIS.01250)
- [60] Legris, P., Ingham, J., & Collette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, 40(3), 191-204. doi:[https://doi.org/10.1016/S0378-7206\(01\)00143-4](https://doi.org/10.1016/S0378-7206(01)00143-4)
- [61] Liu, P., Zhao, R., Wang, W., & Xiao, J. (2013, 17-19 July 2013). Information technology capability and firm performance: A meta-analysis. Paper presented at the 2013 10th International Conference on Service Systems and Service Management.
- [62] Lynn, G. S., Lipp, S. M., Akgün, A. E., & Cortez, A. (2002). Factors Impacting the Adoption and Effectiveness of the World Wide Web in Marketing. *Industrial Marketing Management*, 31(1), 35-49. doi:[https://doi.org/10.1016/S0019-8501\(00\)00104-8](https://doi.org/10.1016/S0019-8501(00)00104-8)
- [63] MacGregor Robert, C., & Vrazalic, L. (2005). A basic model of electronic commerce adoption barriers: A study of regional small businesses in Sweden and Australia. *Journal of Small Business and Enterprise Development*, 12(4), 510-527. doi:[10.1108/14626000510628199](https://doi.org/10.1108/14626000510628199)
- [64] Melville, N., Kraemer, K., & Gurbaxani, V. (2004). Information technology and organizational performance: An integrative model of IT business value. *MIS quarterly*, 28(2), 283-322.
- [65] Mithas, S., Ramasubbu, N., & Sambamurthy, V. (2011). How Information Management Capability

- Influences Firm Performance. *MIS quarterly*, 35(1), 237-256. doi:10.2307/23043496
- [66] Morgan, N. A. (2012). Marketing and business performance. *Journal of the Academy of Marketing Science*, 40(1), 102-119. doi:10.1007/s11747-011-0279-9
- [67] Oh, S. H., Kim, Y. M., Lee, C. W., Shim, G. Y., Park, M. S., & Jung, H. S. (2009). Consumer adoption of virtual stores in Korea: Focusing on the role of trust and playfulness. *Psychology & Marketing*, 26(7), 652-668. doi:https://doi.org/10.1002/mar.20293
- [68] Ongori, H., & Migiro Stephen, O. (2010). Information and communication technologies adoption in SMEs: literature review. *Journal of Chinese Entrepreneurship*, 2(1), 93-104. doi:10.1108/17561391011019041
- [69] Prajogo, D. I. (2016). The strategic fit between innovation strategies and business environment in delivering business performance. *International Journal of Production Economics*, 171, 241-249. doi:https://doi.org/10.1016/j.ijpe.2015.07.037
- [70] Quinton, S., & Simkin, L. (2017). The Digital Journey: Reflected Learnings and Emerging Challenges. *International Journal of Management Reviews*, 19(4), 455-472. doi:https://doi.org/10.1111/ijmr.12104
- [71] Ramdani, B., Kawalek, P., & Lorenzo, O. (2009). Predicting SMEs' adoption of enterprise systems. *Journal of Enterprise Information Management*, 22(1/2), 10-24. doi:10.1108/17410390910922796
- [72] Rathi, P., & Arora, A. K. (2019). A Study of SSIs-Reasons for Not Implementing Digitalization. Paper presented at the 4th National Conference On Recent Trends in Humanities, Technology, Management & Social Development, India.
- [73] Raymond, L., & Bergeron, F. (2008). Enabling the business strategy of SMEs through e-business capabilities: A strategic alignment perspective. *Industrial Management & Data Systems*, 108(5), 577-595. doi:10.1108/02635570810876723
- [74] Raymond, L., Uwizeyemungu, S., Fabi, B., & St-Pierre, J. (2014, 6-9 Jan. 2014). IT Capability Configurations for Innovation: An Empirical Study of Industrial SMEs. Paper presented at the 2014 47th Hawaii International Conference on System Sciences.
- [75] Ritz, W., Wolf, M., & McQuitty, S. (2019). Digital marketing adoption and success for small businesses: The application of the do-it-yourself and technology acceptance models. *Journal of Research in Interactive Marketing*, 13(2), 179-203. doi:10.1108/JRIM-04-2018-0062
- [76] Santhanam, R., & Hartono, E. (2003). Issues in Linking Information Technology Capability to Firm Performance. *MIS quarterly*, 27(1), 125-153. doi:10.2307/30036521
- [77] Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105-115. doi:https://doi.org/10.1016/j.jfbs.2014.01.002
- [78] Shaltoni Abdel, M., West, D., Alnawas, I., & Shatnawi, T. (2018). Electronic marketing orientation in the Small and Medium-sized Enterprises context. *European Business Review*, 30(3), 272-284. doi:10.1108/EBR-02-2017-0034
- [79] Shiau, W. L., Hsu, P. Y., & Wang, J. Z. (2009). Development of measures to assess the ERP adoption of small and medium enterprises. *Journal of Enterprise Information Management*, 22(1/2), 99-118. doi:10.1108/17410390910922859
- [80] Sin Leo, Y. M., & Tse Alan, C. B. (2000). How does marketing effectiveness mediate the effect of organizational culture on business performance? The case of service firms. *Journal of Services Marketing*, 14(4), 295-309. doi:10.1108/08876040010334510

- [81] Sosik, J. J., Kahai, S. S., & Piovoso, M. J. (2009). Silver Bullet or Voodoo Statistics?: A Primer for Using the Partial Least Squares Data Analytic Technique in Group and Organization Research. *Group & Organization Management*, 34(1), 5-36. doi:10.1177/1059601108329198
- [82] Steenkamp, J.-B. E. M., & van Trijp, H. C. M. (1991). The use of lisrel in validating marketing constructs. *International Journal of Research in Marketing*, 8(4), 283-299. doi:https://doi.org/10.1016/0167-8116(91)90027-5
- [83] Stockdale, R., & Standing, C. (2004). Benefits and barriers of electronic marketplace participation: an SME perspective. *Journal of Enterprise Information Management*, 17(4), 301-311. doi:10.1108/17410390410548715
- [84] Susanty, A., Jie, F., & Helvipriyanto, F. (2012, 20-21 Oct. 2012). Model of information technology adoption in SMEs Batik case study SMEs Batik Solo and Pekalongan. Paper presented at the 2012 International Conference on Information Management, Innovation Management and Industrial Engineering.
- [85] Taiminen, H. (2016). One gets what one orders: Utilisation of digital marketing tools. *The Marketing Review*, 16(4), 389-404. doi:10.1362/146934716X1463647897799 9
- [86] Talukder, S., Kerrisk, K., Ingenhoff, L., Garcia, S., & Celi, P. (2013). Can digital infrared thermography help with prediction of ovulation in a pasture-based dairy system? *DAIRY RESEARCH FOUNDATION*, 145.
- [87] Thaker, K. (2011). How does business performance measurement perform? An empirical study with reference to leading companies in India. *International Journal of Business Performance Management*, 12(4), 396-416. doi:10.1504/ijbpm.2011.042015
- [88] Todor, R. D. (2016). Blending traditional and digital marketing. *Bulletin of the Transilvania University of Brasov. Economic Sciences. Series V*, 9(1), 51.
- [89] Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*, 39(2), 273-315. doi:https://doi.org/10.1111/j.1540-5915.2008.00192.x
- [90] Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review*, 11(4), 801-814. doi:10.5465/amr.1986.4283976
- [91] Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51. doi:https://doi.org/10.1111/j.1468-2370.2007.00201.x
- [92] Weill, P. (1992). The Relationship Between Investment in Information Technology and Firm Performance: A Study of the Valve Manufacturing Sector. *Information Systems Research*, 3(4), 307-333. doi:10.1287/isre.3.4.307
- [93] Yu, C.-S., & Tao, Y.-H. (2009). Understanding business-level innovation technology adoption. *Technovation*, 29(2), 92-109. doi:https://doi.org/10.1016/j.technovation.2008.07.007
- [94] Zeng, Q., & Zheng, D. (2008, 12-14 Oct. 2008). The Impact of IT Capability on Enterprise Performance: An Empirical Study in China. Paper presented at the 2008 4th International Conference on Wireless Communications, Networking and Mobile Computing.
- [95] Zhang, M. J., & Lado, A. A. (2001). Information systems and competitive advantage: a competency-based view. *Technovation*, 21(3), 147-156. doi:https://doi.org/10.1016/S0166-4972(00)00030-4
- [96] Zhu, K. (2004). The Complementarity of Information Technology Infrastructure and E-Commerce Capability: A Resource-Based Assessment of Their Business Value. *Journal of Management*

Information Systems, 21(1), 167-202.
doi:10.1080/07421222.2004.11045794