



## THE USE OF INFORMATION TECHNOLOGY FOR EMBROIDERY ENTREPRENEURS

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### Abstract

This study aims to examine the effect of entrepreneurial behavior and information technology on the performance of online entrepreneurs. This study uses a quantitative approach. The population in this study is embroidery business actors in Pasuruan Regency, East Java, who sell their products online. The sample in this study was 180 respondents. The data used was primary data which was processed using WarpPLS 6.0.

The results showed that perceived usefulness had no effect on company performance, but perceived ease of use and entrepreneurial behavior in online selling significantly affected company performance. Perceived usefulness had no effect on entrepreneurial behavior in online selling, while perceived ease of use significantly affected entrepreneurial behavior in online selling. Entrepreneurial behavior in online selling did not mediate the effect of perceived usefulness on performance. In contrast, entrepreneurial behavior in online selling partially mediated the effect of perceived ease of use on company performance.

**Keywords:** embroidery, company performance, entrepreneurial behavior, online selling, perceived usefulness, perceived ease of use

### A. INTRODUCTION

The number of entrepreneurs can boost the economic condition of a country (Castano, Mendez, & Galindo, 2016). The Global Entrepreneurship Index (GEI) measures a country's entrepreneurial state. The Global Entrepreneurship Index is an annual index that measures the health of a country's entrepreneurial ecosystem. For example, the global Entrepreneurship and Development Index (GEDI) 2019 shows that Indonesia is in 94th position out of 134 countries, with an index value of 21. Compared to other Southeast Asian countries, Indonesia is still below Vietnam (87) and Malaysia (58).

Quoting from the official website of the Department of Industry and Trade (Desperindag), the entrepreneurial ratio in Indonesia has exceeded international standards, which is 2 %. When calculated with the population of Indonesia around 260 million people, the number of national entrepreneurs reaches 8.06 million people.

To increase the number of entrepreneurs in Indonesia, the government seeks to empower entrepreneurs with specialization in products from their area of origin. For example, Batu, with its apple city, Lamongan, is famous for its siwalan fruit products, batik from Pekalongan and Solo, and embroidery products from Bangil, East Java.

Embroidery is one of Indonesia's most valuable handicrafts. Apart from the fact that the craft is quite complicated and requires high accuracy when made by hand.

In business, a company is said to be growing if it has good performance. One of the benchmarks for achieving performance is profit. Profit is one tool to measure performance, although profit is not the only aspect that is assessed of the success of a business. However, profit is an essential factor cause profit is the goal of people doing business (Lestari, 2013).

Bangil has been known as the leading hand border production area in East Java. The phenomenon faced by embroidery business actors in Bangil is the uneven distribution of business products in one year. So far, the majority of embroidery production is only for the needs of Muslim clothing, which is experiencing an increase in demand ahead of Eid al-Fitr. If outside of this moment, the trend of sales of embroidery products will experience a drastic decline. The fact was the main problem experienced by embroidery entrepreneurs in Bangil city. Several things cause the production of embroidery entrepreneurs to decline, including the lack of innovation (Wirasamita, 2010). The innovation referred to here is innovation in the production process and production results.

Another factor that also affects the company's performance is an information technology (Bayo, Fernando, & Lera, 2007). Information technology helps companies/entrepreneurs gain market share and increase overall productivity.

Information technology also helps companies introduce new products and services, understand customer needs, and respond to market changes (Koellinger, 2008). Embroidery artisans can also use information technology in Bangil to increase their sales volume. However, for embroidery artisans in Bangil, the use of information technology is still rarely used. Therefore, it is necessary to introduce the benefits of this technology so that the embroidery artisans intend to use information technology to advance their business.

Users of new technology depend on the perceived benefits of using new technology and the ease of using the technology. The easier it is for the new system/technology to be used, the more valuable the technology will be (Venkatesh & Davis, 2000). If it lives up to expectations, then

Behavioural intentions to use the system are determined by two beliefs 1) Perceived usefulness and 2) Perceived ease of use, known as the Technology Acceptance Model / TAM (Venkatesh & Davis, 2000).

Another antecedent of the company's performance is entrepreneurial behaviour in online selling. Entrepreneurial behaviour in online selling is based on the TAM theory modified by Gahtani (2001). Gahtani (2010) modified the TAM model, which combines behavioural intention to use and actual system use variables into acceptance variables. In this model, embroidery business actors can accept changes in information technology used in online selling which can be seen through their habits in using online selling sites in marketing their products through the stages of the sales process, which consists of 1) understanding the customer, 2) Approach, 3) needs discovery, 4) presentation, 5) close, 6) follow-up (Üstüner, Tubam, & David, 2006).

Entrepreneurial behaviour in online selling will improve company performance, because social media helps business owners share opinions, information, and activities with their partners and customers (Schaffer, 2013). Ahmad & Norita (2018) stated that social media is a potential tool to assist Micro, Small and Medium Enterprises in establishing better relationships with customers, creating brand awareness, and increasing sales.

This study aimed to analyze the effect of Perceived Ease of Use, Perceived Usefulness and entrepreneurial behaviour on company performance. Several previous studies have examined in-depth the effect of Perceived Ease of Use and Usefulness of information technology on company performance. However, adding entrepreneurial behaviour variables to measure company performance is still rare.

## **B. LITERATURE REVIEW**

### **1. Effect of Information Technology on company performance**

Information technology is a technology related to processing data into information and the process of distributing data/information within the boundaries of space and time (Indrajit, 2000). Two beliefs determine behavioural intentions in using it: 1) Perceived usefulness and 2) perceived ease of use, known as the Technology Acceptance Model theory (Venkatesh & Davis, 2000)

Perceived usefulness is the extent to which a person believes using the system will improve his or her job performance. Perceived ease of use is the extent to which a person believes that using a particular system can reduce the workload of doing tasks ( Venkatesh & Davis, 2000)

Someone will use Information Technology if the person concerned knows the benefits will affect the wearer.

According to TAM, perceived usefulness is also influenced by perceived ease of use because the more accessible the system is to use, the more valuable it will be. Perceived usefulness is a fundamental driver of usage intention.

The company's performance can be seen from 1) The level of sales, 2) Profit rate, 3) Return on capital, 4) Turnover rate, and 5) Market share achieved (Jauch & Glueck, 1988). Tang et al., (2008) measure performance through sales growth rate, market share, profit growth rate before tax, and overall performance. {Hudson et al. (2001) measure performance with indicators of flexibility, quality, customer satisfaction, production, and Venkatraman & Ramanujam (1986) measure performance through market performance.

Technology can reduce operational costs, provide good service, and increase market share ( Wiseman, 1988; Raymond, Pare, & Bergeron, 1995; Samwel et al., 2019). Therefore, the first hypothesis proposed in this study is:

H<sub>1a</sub>: perceived usefulness has a significant effect on company performance.

H<sub>1b</sub>: perceived ease of use significantly affects company performance.

### **2. The Influence of Information Technology on Entrepreneurial Behavior in Online selling.**

Lifestyle is closely related to the times and technology. Assael (1984) states that lifestyle describes a person's whole self-interacting with his environment. In contrast to what Mowen & Minor (2002) said, lifestyle shows how people live, how to spend their money and how to allocate time. Hindelang developed the beginning of the lifestyle theory in 1978; in his theory, he stated that lifestyle emerged from daily activities (Maxfield, 1987).

In the current era, smartphones have become a lifestyle; humans cannot be separated from smartphones. Smartphone use is not only limited to communication in general but also penetrates entertainment and even becomes a lifestyle in online shopping.

There are several advantages to shopping online. Research conducted by Atchariya Chanvanich & Okada (2006) in Japan shows that price is the dominant factor in their shopping choice. It is because it is challenging to buy low-quality products from traditional shops in Tokyo. This lifestyle change can affect a person's behaviour and ultimately determine a person's consumption choices (Yuniarti, 2015). Changes in consumer behaviour require companies to rethink their marketing strategies in the digital world. Digital technology booming at this time helps develop several economic

sectors, such as retail ( e-commerce ), transportation, education, health and social networks.

This condition makes embroidery business actors have to continue to improve their ability to sell online. Evidenced by the results of previous research stating the importance of stating that perceived ease of use and perceived usefulness in business organizations (Hanggono & Handayani, 2015; Sayekti & Pulasna, 2016; Abbad, Magboul, & AlQeisi, 2021; Gómez, Salazar & Vargas, 2022; Satar & Alarifi, 2022). Therefore, the second hypothesis proposed in this study is:

H<sub>2a</sub>: Perceived usefulness significantly affects entrepreneurial behaviour in online selling.

H<sub>2b</sub>: Perceived ease of use significantly affects entrepreneurial behaviour in online selling.

### **3. Entrepreneurial behaviour online selling on company performance**

Digital marketing is related to internet media's marketing activities (Fabian, 2018). The need to use the internet as a market medium is unstoppable. Multinational and micro-companies, including MSMEs, compete to get customers through the internet. It follows the research of Pickernell & Jones (2013), which states that Small, Micro and Medium Enterprises are more successful in conducting trading activities with e-commerce. The existence of the digital world makes some companies feel pressured, including huge companies with high distribution channel costs. The existence of digital marketing makes it easier for small companies to seize markets that are already owned by large companies (Tiago & Veríssimo 2014). To increase digital marketing engagement, marketers must focus on customer relationship-based interactions. Business actors must create engaging content so that consumers know their products well on e-commerce platforms (Gupta, 2015).

Entrepreneurial behaviour in online selling is needed to connect consumers with business actors and bring out the creative side in marketing their products. Entrepreneurial behaviour in online selling emerged from the Technology Acceptance Model (TAM) theory developed by Gahtani (2001). The TAM theory follows the Kubble Russ cycle, which states that acceptance is achieved after the individual realizes the change is permanent. Acceptance includes the behavioural intensity of the use of information systems and the actual use of information systems. Acceptance is known when the user always uses, accesses, or creates user satisfaction.

Besides acceptance, entrepreneurial behaviour online selling requires embroidery business actors to carry out stages in online selling, which consist of understanding the customer, approach, needs discovery, presentation, close and follow-up ( Hanggono & Handayani, 2015; Masud, Nurfadhilah, Tijjang, & Ali, 2022; Al-Omari, AlZgool, Ahmed, Pahi, & AlMaamary, 2022). Therefore, the third hypothesis proposed in this study is:

H<sub>3</sub>: Entrepreneurial behaviour in online selling significantly affects company performance.

### **4. The influence of information technology on company performance mediated entrepreneurial behaviour in online selling.**

The development of the internet and the world of digital marketing today make it easier for consumers to choose and get the products they want ( Roggeveen & Sethuraman, 2020). For business people, including MSMEs, technology can provide

new trade opportunities, modify production processes, and improve sustainability practices (Chege & Wang, 2019).

However, several previous studies have shown that information technology does not affect company performance (Azam, 2016; Salo et al., 2018; Franco & Garcia, 2017). It is in contrast to the general assumption that information technology has a positive and significant influence on company performance (Raymound, Pare & Bergeron 1995; Lee et al., 2016; Samwel, Wang & Suntu 2019). This inconsistency raises research gaps.

This study fills the research gap by the entrepreneurial behavior variable of online selling. Several previous studies have stated that information technology has a positive and significant effect on entrepreneurial behavior in online selling (Abbad, Magboul, & AlQeisi, 2021); (Gómez, Salazar, & Vargas, 2022; (Satar & Alarifi, 2022)) which will ultimately affect performance. Company (Masud, et al, 2022; (Al-Omari, et al, 2022) ). Therefore, the fourth hypothesis proposed in this study is:

H<sub>4a</sub> : Entrepreneurial behavior in online selling mediates the effect of perceived usefulness on company performance.

H<sub>4b</sub> : Entrepreneurial behaviour in online selling mediates the effect of perceived ease of use on

### C. RESEARCH METHOD

This study uses a quantitative approach. The research location was in Bangil Pasuruan Regency, famous as one of the embroidery business centers in East Java. The population in this study were all business actors who sell embroidery products whose number is unknown with certainty, selling their products online for at least 2 (two) years in Pasuruan Regency. In this study, the sample selection method used non-probability sample selection using purposive sampling. Bentler & Chou (1987) recommends a sample size ratio to the number of parameters of 5:1; this means that if there are 30 research parameters in the research model, then the minimum number of samples required is 150 samples. In this study, the number of samples was 180 respondents.

### D. RESEARCH RESULTS AND DISCUSSION

From the validity test results, it is known that the value of Average Variance Extracted - ( AVE) Convergent Validity perceived usefulness is 0.666. The AVE value of perceived ease of use is 0.746. The AVE value of entrepreneurial behavior in online selling is 0.54. Finally, the AVE value of the company's performance is 0.601. The entire AVE value of all research variables is above 0.50, so this research data meets the convergent validity test.

The results of the Discriminant validity test show that the AVEs value of the correlation variable X<sub>1</sub> (perceived usefulness ) of 0.816 has a higher AVEs value than other latent variables in one column. The AVEs value of the correlation variable X<sub>2</sub> (perceived ease of use) 0.864 has a higher AVEs value than the other latent variables in one column. The value of AVEs correlation variable Z (Entrepreneurial behaviour in online selling 0.717. It was more significant than the other latent variables in one column, and the value of AVEs correlation to company performance of 0.776 has a value of AVEs greater than the other latent variables in one column. So all the variables in This study meet the requirements of passing the discriminant validity test.

The results of the reliability test show that the composite reliability value of all variables perceived usefulness (X<sub>1</sub>), perceived ease of use (X<sub>2</sub>), entrepreneurial

behaviour in online selling (Z), and company performance (Y) above 0.7 and Cronbach's alpha value for all variables is above 0.6. Therefore, it can be concluded that the questionnaire used in this study is reliable.

### Hypothesis Test Results

**Table 1. Hypothesis test results**

Effect	$\beta$	p-value	R <sup>2</sup>	description
<b>direct effects</b>				
perceived usefulness on company performance	0.03	0.342		H1a rejected
perceived ease of use on company performance	0.347	< 0.001		H1b accepted
perceived usefulness on entrepreneurial behavior	0.109	0.068		H2a rejected
perceived ease of use on entrepreneurial behavior	0.417	< 0.001		H2b accepted
entrepreneurial behavior on company performance	0.432	< 0.001		H3 accepted
<b>Indirect effects</b>				
perceived usefulness on company performance	0.047	0.184		H4a rejected
perceived ease of use on company performance	0.184	< 0.001		H4b accepted
<b>Endogenous Variables:</b>				
company performance			0.486	
entrepreneurial behavior on company performance			0.234	

Source: primary data (2022)

Based on table 1 (one), it is known that the direct effect of perceived usefulness on company performance has a value of 0.03 with a value of 0.342, then H1a is rejected, meaning that perceived usefulness does not affect company performance. The direct influence of perceived ease of use on company performance has a value of 0.347 with a value < 0.001, then H1b is accepted, meaning that perceived ease of use significantly affects company performance. The effect of perceived usefulness on entrepreneurial behaviour on company performance has a value of 0.109 with a value of 0.068. The H2a hypothesis is rejected, meaning that perceived usefulness does not affect entrepreneurial behaviour in online selling. The effect of perceived ease of use on entrepreneurial behaviour in online selling has a value of 0.417 with a value of <0.001. The H2b hypothesis is accepted, meaning that perceived ease of use has a significantly positive effect. Finally, the influence of entrepreneurial behaviour in online selling on company performance has a value of 0.432 with a value <0.001, then hypothesis 3 is accepted, meaning that entrepreneurial behavior in online selling has a significant effect on company performance. The indirect effect of the perceived usefulness variable on the company's performance has a value of 0.047 with a value of 0.184, then H4a is rejected, meaning that entrepreneurial behavior in online selling does not mediate the effect of perceived usefulness on company performance. The indirect effect of the perceived ease of use variable on company performance is 0.184 with a value <0.001. The H4b hypothesis is accepted, meaning that entrepreneurial behavior in online selling mediates the effect of perceived ease of use on company performance.

The direct effect of perceived usefulness on company performance has a coefficient of 0.03, while the indirect effect of perceived usefulness on company performance has a coefficient of 0.047. Although both hypotheses are rejected, it means

that the indirect effect is greater than the direct effect. The direct effect of perceived ease of use on company performance has a coefficient of 0.347. In contrast, the indirect effect of perceived ease of use on company performance has a coefficient of 0.184. It means that direct influence has a more significant influence than indirect influence.

The R-squared value of the company's performance variable is 0.486, meaning that the contribution of perceived usefulness, perceived ease of use, and entrepreneurial behaviour in online selling to the company's performance is 48.6%. The R-squared value of the entrepreneurial behaviour variable in online selling is 0.234, meaning that the contribution of the perceived usefulness and perceived ease of use variables on entrepreneurial behaviour in online selling is 23.4%.

## E. CONCLUSION

The result show that perceived usefulness has no effect on company performance, perceived ease of use has a significant effect on company performance, perceived usefulness does not affect entrepreneurial behaviour in online selling, perceived ease of use affects entrepreneurial behaviour in online selling, behaviour Entrepreneurship in online selling has an effect on company performance, entrepreneurial behaviour in online selling does not mediate the effect of perceived usefulness on company performance and entrepreneurial behaviour in online selling partially mediates the effect of perceived ease of use on company performance.

The results of this study become a direction for further research interested in developing the results of this study by taking other research locations or a broader scope of research units.

## REFERENCES

- Abbad, M., Magboul, IH, & AlQeisi, K. (2021). Determinants and outcomes of e-business adoption among manufacturing SMEs: Insights from a developing country. *Journal of Science and Technology Policy Management* .
- Al-Omari, MA, AlZgool, MR, Ahmed, U., Pahi, MH, & AlMaamary, Q. (2022). Exploring the Nexus Between E-Business Processes and Organizational Performance: Can Technological Opportunism Play Any Role?
- Bayo, A., Fernando, M., & Lera, L. (2007). A firm-level analysis of determinants of ICT adoption in Spain. *Technovation*, Volume 27 , 352-366.
- Castano, MS, Mendez, MT, & Galindo, MA (2016). The effect of public policies on entrepreneurial activity and economic growth. *Journal Of Business Research* , 5280-5285.
- Chege, SM, & Wang, D. (2019). The influence of technology innovation on SME performance through. *Technology in Society*, Volume 60 , 1-12.
- Chege, SM, Wang, D., Suntu, SL, & Bishoge, OK (2019). Influence of technology transfer on performance and sustainability of standard gauge railway in developing countries. *Technology in Society*, 56 , 79-92.
- Fabian, L. (2018). *Digital Marketing Concepts*. Jakarta: PT Gramedia Pustaka Utama.
- Gómez, J., Salazar, I., & Vargas, P. (2022). Production outsourcing, technological cooperation and E-business adoption by Spanish manufacturing firms . *Journal of Engineering and Technology Management*, 63, 101677 .
- Gupta, VS (2015). *Content Marketing: Say Something; Say It Well; Say It Often*. Letter: SR Luthra Institute of Management , 1-8.

- Hanggono, AA, & Handayani, SR (2015). Analysis of the Practice of TAM (Technology Acceptance Model). *Journal of Business Administration (JAB)*|Vol. 26 No. 1 , 1-9.
- Hollebeek, LD, & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45 , 27-41.
- Jauch, LR, & Glueck, WF (1988). *Business policy and strategic management*. . McGraw-Hill.
- Koellinger, P. (2008). The relationship between technology, innovation, and firm performance—Empirical evidence from e-business in Europe. *Research Policy*, Volume 37, Issue 8, September , 1317-1328.
- Kotler, P., Kartajaya, H., & Setiawan, I. (2014). *Marketing 4.0 "Moving from Traditional to Digital*. Jakarta: Publisher PT Gramedia Pustaka Utama.
- lee, H., I Choi, H., Lee, J., Min, J., & Lee, H. (2016). Impact of IT Investment on Firm Performance Based on Technology IT Architecture. *Procedia Computer Science* 91 , 652 – 661.
- Lestari, F. (2013). The influence of the entrepreneurial spirit and creativity on business success at the knitting industry center Binong Jati Bandung. Available at elib.unikom. air conditioning. id , 4.
- Masud, AA, Nurfadhilah, N., Tijjang, B., & Ali, R. (2022). The Role of E-Business Adoption Towards Improving Msme Performance in Parepare City. *Hasanuddin Economics and Business Review*, 5(3) , 59-66.
- Maxfield, MG (1987). Lifestyle and Routine Activity Theories of Crime:Empirical Studies of Victimization, Delinquency, and Offender Decision-Making . *Journal of Quantitative Criminology*, Vol. 3, No. 4, , 275-282.
- Park, SY (2009). An Analysis of the Technology Acceptance Model in Understanding University Students'. *International Forum of Educational Technology & Society* , 150-162.
- Raymond, L., Pare, G., & Bergeron, F. (1995). Matching information technology and organizational structure: an empirical study with implications for performance. *European Journal of Information Systems*, 4(1) , 3-16.
- Ronald L, T., Christopher A, H., & Jane M, H. (1991). Personal computing: toward a conceptual model of utilization. *MIS quarterly* , 125-143.
- Satar, MS, & Alarifi, G. (2022). Factors of E-Business Adoption in Small and Medium Enterprises: Evidence from Saudi Arabi. a. *Human Behavior and Emerging Technologies* .
- Sayekti, F., & Pulasna, P. (2016). Q: The application of the Technology Acceptance Model (TAM) in the Testing of the Regional Financial Information System Acceptance Model. *Journal of Theoretical and Applied Management*, Year 9. No. 3 , 196-209.
- stüner, Tubam, & David, G. (2006). Better Sales Networks. *Harvard Business Review*, 84 (7–8) , 102–112.
- Venkatesh, V., & Davis, FD (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Acceptance Model: Four Longitudinal. *Management Science* , 186-204.
- Wirasmita, Y. (2010). *Entrepreneurship Management Bulletin*. Bandung: Master of Management Program, Faculty of Economics, Padjadjaran University, September 2010 Edition.
- Wiseman, C. (1988). Attack & counterattack: The new game in information technology. *Planning Review*, Vol. 16 Iss 5 , 6-12.
- Yuniarti, VS (2015). *Consumer Behavior: Theory and Practice*. Bandung: Faithful Library Publisher.