

## Analysis the Effect of Digitalization and Technology on Web-Based Entrepreneurship

Budi Kurniawan Hutasuhut<sup>1</sup>, Indah Purnama Sari<sup>2</sup>, Al-Khowarizmi<sup>3</sup>


<sup>1</sup>Department of Information System, Universitas Muhammadiyah Sumatera Utara, Indonesia

<sup>2,3</sup>Department of Information Technology, Universitas Muhammadiyah Sumatera Utara, Indonesia

### ABSTRACT

The development of technology is currently growing rapidly. Entrepreneurship and many technological advances are possible. The impact of technology on entrepreneurship has enormous advantages. By utilizing the internet network, technology has developed into a medium for business transactions, both products and services. Realize that the role of internet media can be used in the buying and selling process to increase sales turnover, as a way to market products to a wider market, and as a way to reduce operational costs such as store rental costs. This research on the impact of online website media on the buying and selling process is the main goal. in an effort to boost business at small retailers.

**Keyword : Internet; Technology; Online; Website**

 This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

#### **Corresponding Author:**

Indah Purnama Sari  
Department of Information Technology  
Universitas Muhammadiyah Sumatera Utara  
Jl. Kapten Mukhtar Basri No 3 Medan, 20238, Indonesia.  
Email : indahpurnama@umsu.ac.id

#### **Article history:**

Received Mar 9, 2023  
Revised Mar 14, 2023  
Accepted Mar 17, 2023

### 1. INTRODUCTION

The development of technology is currently growing rapidly. Entrepreneurship and many technological advances are possible. The impact of technology on entrepreneurship has enormous advantages. By utilizing the internet network, technology has developed into a medium for business transactions, both products and services. Realize that the role of internet media can be used in the buying and selling process to increase sales turnover, as a way to market products to a wider market, and as a way to reduce operational costs such as store rental costs. This research on the impact of online website media on the buying and selling process is the main goal. in an effort to boost business at small retailers. [1,2,3]

Product innovation is a key determinant of business performance. In addition, entrepreneurs can innovate in the following areas: 1) product innovation for goods, services, ideas or business locations. Entrepreneurs are able to create various product designs as a form of innovation. They can also add value to the goods or items that are made. 2) Management, including labor processes, manufacturing processes, financial systems, marketing, and other fields, can also be innovative. For a business, innovation is very important. Product innovation is one of the impacts of technological developments. [4,5,6]

An entrepreneur is highly anticipated and is obliged to make changes in order to increase his competitiveness apart from innovating. Utilizing advances in information technology is one of them. Entrepreneurs still face challenges, especially small business owners, also known as small and medium enterprises, who have not been able to rise from the ongoing economic crisis and move towards developed countries. One of them is the company's inherent weaknesses, specifically the inability or unwillingness of owners or employees to aggressively use technology to advance company operations. [7,8,9]

This study is a quasi-experimental investigation of how well people can understand entrepreneurship before and after using information and communication technology (ICT) in web-based ventures. The stages of conducting this research include preliminary studies, formulation and identification of problems, preparation of instrument validation, coding of algorithms for application development, instrument testing and instrument repair, determination of population and sample, pretest, web implementation in entrepreneurship, observation, posttest, data collection, and analysis

data. After that, it is continued by arriving at the findings documented in a report. While using php and mysql in research design. This study uses the test as a research tool. Analysis of the results of the entrepreneurship test revealed an increase in ICT skills in the practical use of web-based entrepreneurship. [10,11,12,13]

## 2. RESEARCH METHOD/MATERIAL AND METHOD/LETERATURE REVIEW

According to Debbie Liao and Philip Sohmen (2001) in Rossa Amalia Fatmawati entrepreneurial orientation is the characteristics and values shared by entrepreneurs themselves which are unyielding nature, courage to take risks, speed and flexibility.

According to Weerawerdeena (2003) in Andriani Suryanita (2006:13) indicators of entrepreneurial orientation are:

1. Innovativeness
2. Proactivity
3. Risk taking

Factors that can affect the performance of small companies include internal and external factors. Success can be obtained depending on the ability to manage these two factors through environmental analysis and the formation and implementation of business strategies (Sudiarta, 2014). There are challenges for small entrepreneurs in their development, especially covering broader aspects, namely management capabilities, improving the quality of human resources, entrepreneurial competence, transparent market information, wider access to capital, a healthy business climate to support innovation, entrepreneurship, input factors other production, and fair business competition as well as business practices. (Haeruman (2000).

### A. Research Stages

The stages of research conducted in this study are:

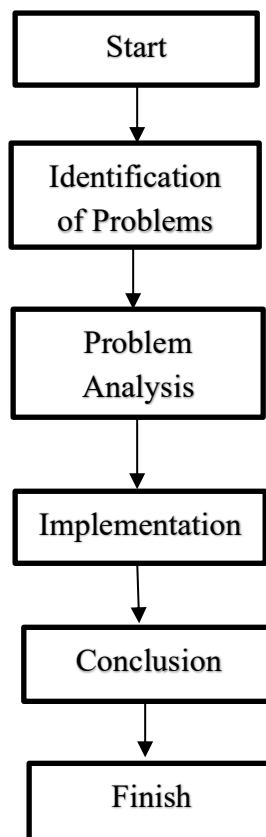


Figure 1. Research Stages

Description of the stages of the research carried out based on the stages in the picture above are:

- a. **Identification of problems**  
Problem identification is the first step in research that aims to build a Web-based digital archive or document information system.
- b. **Problem analysis**  
At this stage an analysis of the needs of the research object is carried out, as well as analyzing the elements needed by the research object.
- c. **Results and Discussion**  
The results and discussion in this study will be carried out after completing the analysis phase using the results from that stage. The results and discussion aim to check whether or not the implementation is in accordance with the results of the previous stage.
- d. **Conclusion**  
This stage will produce information about the results of the system and design that has been built.

## **B. Research Design**

The research design that will be carried out in this study includes the following stages, namely: (1) Coding stage carried out by the first member and research instruments by other teams, (2) Trial stage of information system applications and research instruments, (3) Experimental implementation stage, and (4) the stage of analysis of research results. Each stage is designed in such a way that valid data is obtained in accordance with the characteristics of the variables and with the research objectives.

## **C. Data Collection Technique**

The data to be collected in this study is data related to the ability to understand the concept of entrepreneurship in information technology which is taken using a test. The tests given are in the form of pretest and posttest questions. At this stage the researcher and the second research member will collect data and go directly to the field so that the chairperson and members are directly involved in data collection.

## **D. Data Analysis Technique**

Quantitative data to be analyzed in this study are the results of the pretest and posttest of entrepreneurship. The data obtained from the concept understanding ability scores were then analyzed by the second member and the chairman.

## **3. RESULTS AND DISCUSSION**

### **A. Analysis of Respondent Characteristics Description**

Based on research that has been done, the average shop owner is male as many as 121 people (69%) and women as many as 55 people (31%). Based on age, there were 62 people aged 20-29 years (35%), aged 30-39 years were 60 people (34%) and aged >40 years were 54 people (31%). Based on the latest education, there were 1 elementary school student (1%), 5 junior high school students (3%), 118 high school students (67%), 10 D3 students (5%), 18 undergraduate students (10%) and others. 24 people (14%). Based on the length of entrepreneurship, there were 70 people (40%) 1-5 years, 53 people (30%) 6-10 years and >10 years 53 people (30%).

### **B. Preliminary Analysis of Estimation Results**

Validity test based on preliminary analysis of the estimated results for each variable is known from the initial path diagram, namely if it has an SFL value  $\geq 0.50$  it will meet the validity criteria, for the entrepreneurial orientation variable it consists of 7 statements where 2 of them are invalid because they have a value less than 0.50, namely OKW4 and OKW5. The information technology variable consists of 6 valid statements. The innovation variable consists of 6 valid statements. The business performance variable consists of 8 valid statements. So that the statements issued to carry out further analysis are OKW4 and OKW5 only.

### C. Model Fit Test

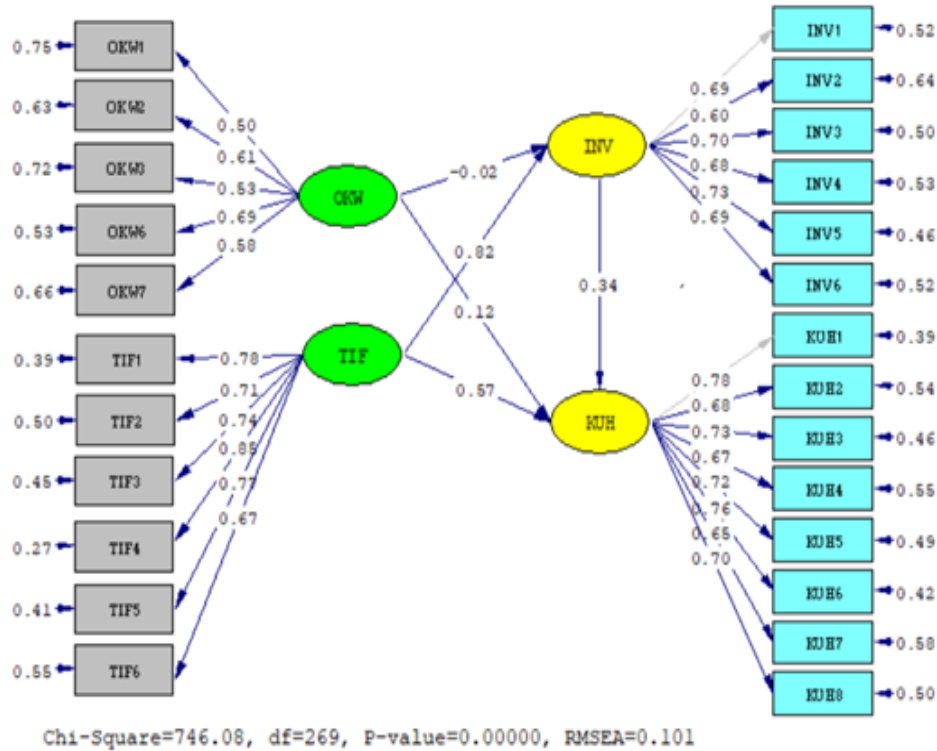


Figure 2. Model Analysis Results

Citing the opinions of several experts including Ghozali (2012:29), Waluyo (2011:24), Widarjono (2010:282-284), Wijanto (2008, 61-62), and Wijaya (2009:7) argue that overall the Goodness of Fit (GOF) can be assessed based on a minimum of 5 (five) criteria. Latan (2012:49) cites the opinion of Hair et.al. (2010) who said that using 4 to 5 criteria of Goodness Of Fit is considered sufficient to assess the feasibility of a model, as long as it represents each of the criteria of Goodness Of Fit namely Absolute Fit Indices, Incremental Fit Indices and Parsimony Fit Indices.

### 4. CONCLUSION

Based on the explanation of the discussion in writing this paper, it can be concluded as follows:

- 1) With a website that utilizes the internet as a marketing medium, it can make it easier for entrepreneurs to provide optimal service to consumers and provide 24-hour information and can be accessed anytime and anywhere.
- 2) There is a positive and significant influence of information technology on entrepreneurship, namely by utilizing social networks, this really illustrates that information technology can help entrepreneurship by maximizing technological developments. This means that the better the use of information technology by an entrepreneur, the more entrepreneurship can be done based on the development and use of technology.
- 3) The designed website can increase product sales turnover. Previously, the product sales system was carried out classically, getting a smaller turnover than product sales using information technology through web media, getting a larger turnover.
- 4) With the application of information technology selling this product can also help the government in carrying out social distancing. Conclusions are written in narrative form, not in itemized form. If there is an overview for the development of research in the future, it can also be written in this section.

**REFERENCES**

- Munir Fuady, *Pengantar Hukum Bisnis: Menata Bisnis Modern di Era Globalisasi*, Edisi ke dua, Bandung: PT Citra Aditya Bakti, 2005.
- Sutrisno, J., Strategi Pengembangan Teknologi E-Commerce Dengan Metode SWOT: Studi Kasus PT. Chingmix Berhan Sejahtera, *Jurnal Telematika Mkom*, Vol.3 No.2, September, 2011.
- Onno W Purbo. & Aang Arif Wahyudi, *Mengenal E-Commerce*, PT. Elex Media Komputindo, Jakarta, 2001.
- Arshad, A S., Rasli, A., Arshad, A A., Zain, Z M., 2016. 'The Impact of Entrepreneurial Orientation on Business Performance: A Study of Technology-based SMEs in Malaysia'. *Journal of Business and Management*, no. 130, pp. 46-53.
- Cho, Y H., Lee, J H., 2018. 'Entrepreneurial orientation, entrepreneurial education and performance (2018)'. *Journal of Innovation and Entrepreneurship*, vol. 12, no. 2, pp. 124-134.
- Dhewanto, W., Prasetyo, E A., Ratnaningtyas, S., Herliana, S., Chaerudin, R., Aina, Q., Bayuningrat, R., Rachmawaty, E., 2015. 'Moderating Effect of Cluster on Firm's Innovation Capability and Business Performance: A Conceptual Framework'. *Journal of Business and Management*, no. 65, pp. 867-872.
- Sari, I.P., & Batubara, I.H, (2021), User Interface Information System for Using Account Services (Joint Account) WEB-Based, *International Journal of Economic, Technology and Social Sciences (Injects)*, pp. 462-469
- Sari, I.P., & Batubara, I.H, (2021), Perancangan Sistem Informasi Laporan Keuangan Pada Apotek Menggunakan Algoritma K-NN, *Seminar Nasional Teknologi Edukasi dan Humaniora (SiNTESa) 1* (2021 - ke 1)
- Sari, I.P., Jannah,A., Meuraxa, A.M.,Syahfitri,A., & Omar, R, (2022), Perancangan Sistem Informasi Penginputan Database Mahasiswa Berbasis Web, *Hello World Jurnal Ilmu Komputer 1* (2), 106-110
- Sari, I.P., Azzahrah, A., Qathrunada, I.F., Lubis, N., & Anggraini, T, (2022), Perancangan Sistem Absensi Pegawai Kantoran Secara Online Pada Website Berbasis HTML dan CSS, *Blend Sains Jurnal Teknik 1* (1), 8-15
- Sari, I.P., Syahputra, A., Zaky, N., Sibuea, R.U., & Zakhir, Z (2022), Perancangan Sistem Aplikasi Penjualan dan Layanan Jasa Laundry Sepatu Berbasis Website, *Blend Sains Jurnal Teknik 1* (1), 31-37
- Sari, I.P., Ramadhani, F., & Al-Khowarizmi., (2021), Pengaruh Teknologi Informasi Terhadap Kewirausahaan Pada Aplikasi Perancangan Jual Beli Jamu Berbasis WEB, *Prosiding Seminar Nasional Kewirausahaan 2* (1), 874-878
- Sari, I.P., IH Batubara, Al-Khowarizmi, (2021), Sensitivity Of Obtaining Errors In The Combination Of Fuzzy And Neural Networks For Conducting Student Assessment On E-Learning, *International Journal of Economic, Technology and Social Sciences*
- Sari, I.P., IH Batubara, M Basri, (2023), Pengenalan Bangun Ruang Menggunakan Augmented Reality sebagai Media Pembelajaran, *Hello World Jurnal Ilmu Komputer 1* (4), 209-215
- Sari, I.P., IH Batubara, M Basri, (2022), Implementasi Internet of Things Berbasis Website dalam Pemesanan Jasa Rumah Service Teknisi Komputer dan Jaringan Komputer, *Blend Sains Jurnal Teknik 1* (2), 157-163
- Sari, I.P., IH Batubara, AK Al-Khowarizmi, PP Hariani, (2022), Perancangan Sistem Informasi Pengelolaan Arsip Digital Berbasis Web untuk Mengatur Sistem Kearsipan di SMK Tri Karya, *Wahana Jurnal Pengabdian kepada Masyarakat 1* (1), 18-24
- Ramadhani, F., Sari, I.P., & Al-Khowarizmi., (2021), Pemanfaatan Aplikasi Online dalam Digitalisasi Pasar Tradisional di Medan, *Prosiding Seminar Nasional Kewirausahaan 2* (1), 806-811
- AK Al-Khowarizmi, IR Nasution, M Lubis, AR Lubis, (2020), The effect of a SECoS in crude palm oil forecasting to improve business intelligence, *Bulletin of Electrical Engineering and Informatics 9* (4), 1604-1611
- AK Al-Khowarizmi, F Fauzi, IP Sari, AP Sembiring, (2020), The effect of indonesian and hokkien mobile learning application models, *Journal of Computer Science, Information Technology and Telecommunication*
- AK Al-Khowarizmi, (2020), Model Classification Of Nominal Value And The Original Of IDR Money By Applying Evolutionary Neural Network, *Journal of Informatics and Telecommunication Engineering 3* (2), 258-265