

THE EFFECT OF DIGITAL ECONOMY WITH DIGITAL LITERACY AS A MODERATING VARIABLE ON INCREASING RUMAH UMKM INCOME IN DESA PERKEBUNAN TANJUNG KASAU, BATUBARA

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Abstract: *Rumah UMKM are one of the drivers of development and economic growth in Indonesia. This study aims to examine the effect of the digital economy on Rumah UMKM income in Desa Perkebunan Tanjung Kasau, Batubara with digital literacy as a moderator variable. In this study using a descriptive quantitative method with the sample used are Rumah UMKM actors who are registered as members at the Rumah UMKM in Desa Perkebunan Tanjung Kasau, Batubara and use internet media in their business activities both in promotional activities or transactions. The number of samples as respondents from this study amounted to 300 respondents. The analytical tool used was Smart PLS version 3.0. The results of this study prove that the digital economy has a positive and significant effect on the income Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara. And the role of digital literacy is significant in moderating the relationship between the two variables. So that there is an indication that Rumah UMKM income will increase if digital literacy is maximized.*

Keywords: *Digital Economics, Literachy Digital, Rumah UMKM*

Introduction

The development of information and communication technology has experienced rapid growth along with the times. Currently, technological progress has entered the era of the industrial revolution 4.0 which includes industrial automation, robotization, and digitization (Vrchota et al., 2019). An example of the development of information and communication technology is the internet. According to a survey by the Association of Indonesian Internet Service Providers (2018), the penetration of Internet users in Indonesia increased in 2018 to reach 171.17 million people from the previous year in 2017 of 143.26 million people.

As many as 14.1% of Indonesia's population access the internet every day through their personal smartphones for more than 3-4 hours. Some of the activities that Indonesians do when using the internet. Entrepreneurs need aware of the issue so it can create opportunities from using the internet in business. The high activity of using the internet for media social, search engines, e-mail, and video can used by entrepreneurs in Indonesia as a medium for doing business marketing Through the internet. This is according to Stokes (2013) that there are several types of methods in do business marketing through the internet viz search engine optimization, online advertising, videos marketing, social media marketing, e-mail marketing,

and website marketing. According to World Economic Forum (2016), efforts that have utilized the media the internet has a business growth rate of 30% higher than those who do not utilize the media Internet. Therefore, the internet can be selected as potential media for marketing a business digitally.

The business sector that is currently developing and its existence is a strategic step in strengthening the economic basis of the Indonesian people are small and medium enterprises (SMEs). Based on data from the Ministry of Cooperatives and SMEs of the Republic of Indonesia (2018), the SME business sector in Indonesia has increased to 843,834 units and absorbed a workforce of 9,602,091 people in 2018. In addition, SMEs have managed to contribute 23.3 percent to Indonesia's GDP, so they have considerable potential in driving the Indonesian economy.

Literature Review

Digital Economics

Kotler and Keller (2009) state that emarketing is a company's business of informing buyers, communicating, promoting, and selling products or services via the internet. According to Stokes (2013) there are several types of Digital Economic methods, namely search engine optimization (a practice of optimizing websites to rank higher on search engine results pages for relevant search terms), online advertising (a practice of creating advertisements that are in all internet area, such as advertising in email, advertising on social media, and advertising on a website), video marketing (is the practice of creating video content, can be in the form of direct video advertising that is valuable and useful for the marketing process), social media marketing (is a medium in text, visual, and audio forms designed to be shared with a broad audience), e-mail marketing (a form of direct marketing that sends commercial, content-based messages to audiences via e-mail), and website marketing (a practice in making web pages that are carried out for the process of marketing products or services via the internet). Shaltoni et al., (2010) states that there are three stages which are important components in the Digital Economic adoption process, namely management confidence, initiation and implementation. Management confidence is the stage where the management of a company believes that the company's success is highly dependent on marketing through Digital Economic. Initiation is the stage where a belief about Digital Economic.

Marketing Performance

According to Cravens and Piercy (2009). when the marketing plan is developed, performance criteria need to be selected to monitor marketing performance. Marketing performance is needed by companies to show the added value that has been achieved in marketing efforts and to evaluate marketing effectiveness and strategies. Menon et al., (1996) have also developed indicators used in measuring marketing performance, namely expanding market share, increasing sales, and increasing profits.

Method

The type of data used is quantitative and qualitative data. Sources of data in this study are primary data and secondary data. Primary data was obtained from the results of filling out questionnaires and interviews conducted with culinary cluster small and medium enterprises (SMEs) in Rumah UMKM Perkebunan Tanjung Kasau, Batubara area offline and online. While the secondary data in this study were obtained from books, research-related literature,

and the Internet. The sampling method used is non-probability sampling with purposive sampling technique. There was screening at the beginning of the questionnaire where respondents had more than four employees and had implemented digital economics. The number of culinary cluster SMEs in the City is 2875 business units, so the minimum number of samples (n) obtained from the Slovin calculation with an error of 10% is 100 respondents.

Data processing and analysis in this study used two software, namely SPSS and Smart-PLS. SPSS software was used to test the validity and reliability of the research questionnaire and Smart-PLS software was used to analyze data using Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach.

The variables in this study are relative advantage (x_1), suitability (x_2), complexity (x_3), top management support (x_4), employee capabilities (x_5), competitive environment (x_6), customer pressure (x_7), Digital Economics (Y), and Profitabilities (Z). The structural equation model can be seen in Figure 1.

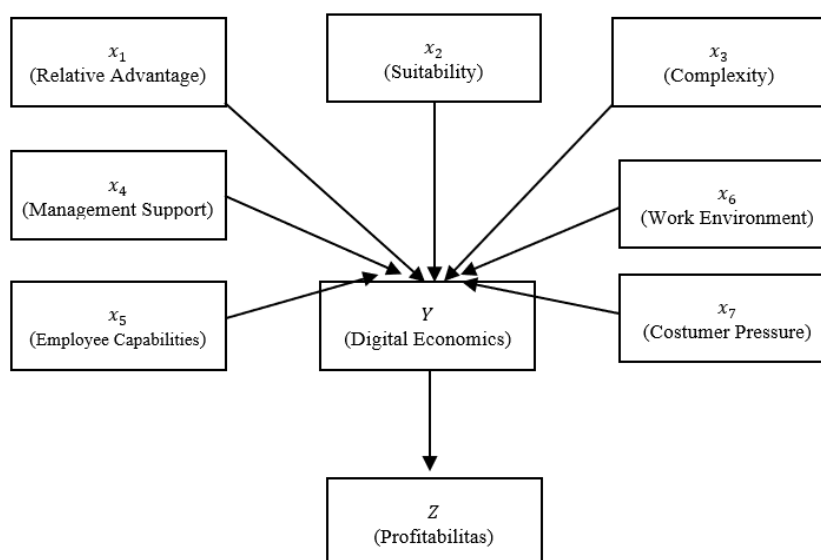


Figure 1: Structural Equation Modelling

The hypothesis in this study is as follows:

H1: Relative advantage has a positive and significant effect on the digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H2: Appropriateness has a positive and significant effect on the adoption of digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H3: Complexity has a positive and significant effect on digital economy adoption at Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H4: Top management support has a positive and significant effect on the digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H5: The ability of employees has a positive and significant effect on the digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H6: The competitive environment has a positive and significant effect on the digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H7: Customer pressure has a positive and significant effect on the digital economy at the Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

H8: Adoption of Digital Economic has a positive and significant effect on marketing performance at Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

Result and Discussion

The results of research regarding the use of Digital Economic by Rumah UMKM income in Desa Perkebunan Tanjung Kasau, Batubara can be seen in Figure 2.

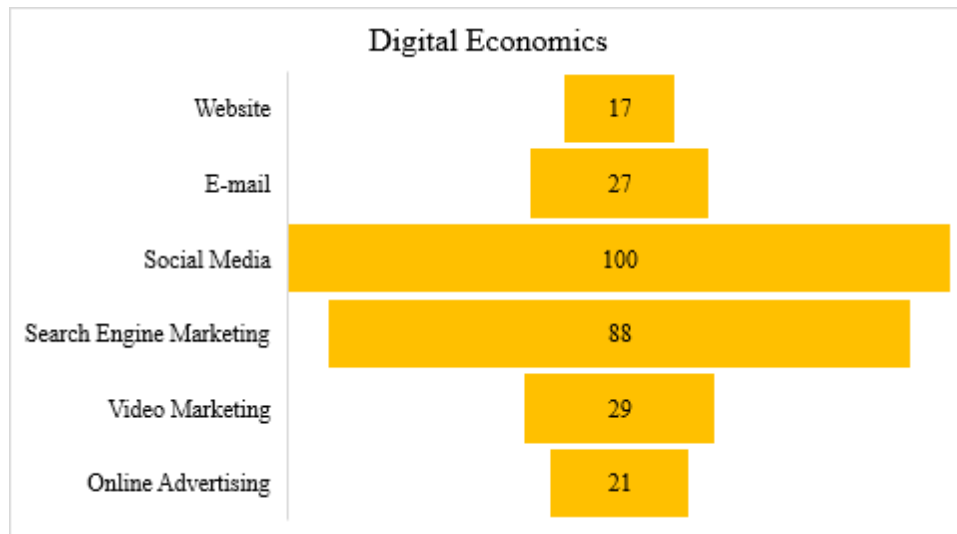


Figure 2: Digital Economics at Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara.

Based on Figure 2, the most widely used type of Digital Economic is social media marketing. On average, culinary cluster SMEs in Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara use Instagram social media to market their products and communicate with customers. The companies use social media marketing because of the large number of users and the high activity of users through social media. In addition, social media marketing is widely used because of the ease of access and lower costs compared to other types of Digital Economic. The least used type of digital economics is website marketing. The low use of website marketing by culinary SMEs in Rumah UMKM Desa Perkebunan Tanjung Kasau, Batubara is due to the high cost and high ability to access websites for business marketing purposes.

Structural Equation Modelling

Evaluation of the outer model is the first step taken in SEM measurements. According to Hair et al. (2014), the outer model is used to evaluate how the relationship between each indicator and the latent variable construct. There are three testing steps in evaluating the outer model, namely, convergent validity test (loading factor and AVE), reliability test (Cronbach's alpha and composite reliability), and discriminant validity test (Fornell-larcker criterion and cross loadings). The loading factor value in the initial path model can be seen in Figure 3.

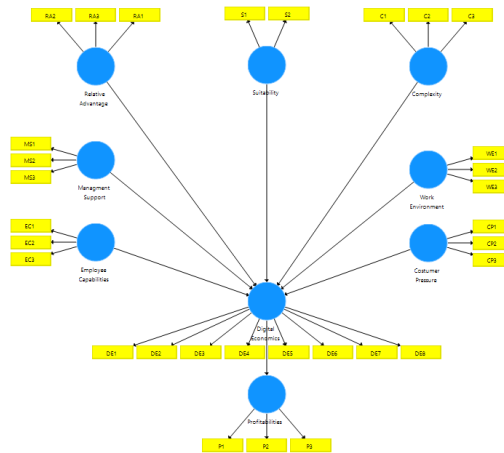


Figure 3: Structural Equation Modelling Using SMART-PLS

According to Hair et al., (2014) an indicator is declared valid if it has a loading factor value > 0.70 and an Average Variance Extracted (AVE) value > 0.50. If there is an indicator that has a loading factor value < 0.70, then the indicator must be dropped and recalculated again.

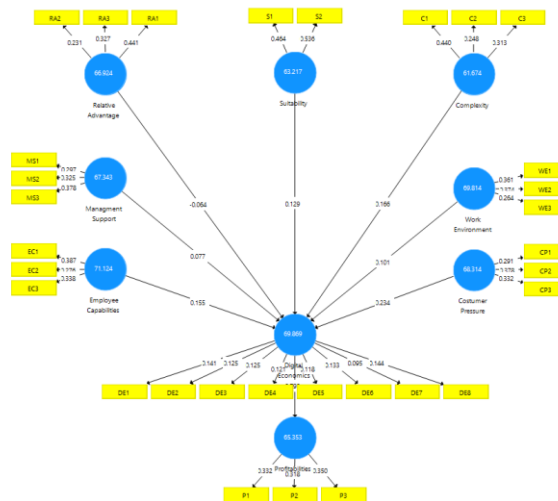


Figure 4: Probabilities Analysis Based on Variable Correlations

In the calculation of the initial SEM-PLS model path, there are still four indicators that have a loading factor value of <0.70, namely for complexity there is AC_3 with a loading factor value of -0.526 and for digital economics adoption there are DA_4 and DA_6 with loading factor values of 0.396 and 0.637. These indicators must be dropped and recalculated again. After re-calculation, it turns out that the DA_3 indicator in the Digital Economic adoption variable has a loading factor value of 0.699 so that indicator must also be dropped. The dropping action was carried out because the four indicators were not strong enough to describe the latent variable constructs. The final results of the loading factor values in the SEM-PLS model can be seen in Table 1.

Table 1: Latent Variable Performance

| | LV Performance |
|--------------------|----------------|
| relative advantage | 61,67 |
| suitability | 68,31 |
| complexity | 61,67 |
| management support | 71,12 |

| | |
|-------------------------|-------|
| employee capabilities | 71,12 |
| competitive environment | 69,81 |
| customer pressure | 68,31 |
| Digital Economics | 69,86 |
| Profitabilities | 65,35 |

The results of the final convergent validity test on the SEM-PLS model show that there are 27 indicators that have a loading factor value > 0.70 and all variables have an AVE value > 0.50 . Based on the test results obtained, it can be concluded that all variables in this study are valid.

Conclusion

Based on the results of calculations that have been carried out by modifying the factor analysis using Variance-based Smart pls, it can be concluded that the digital economy has a significant effect on the profitability of Rumah UMKM income in Desa Perkebunan Tanjung Kasau, Batubara by 59%, this indicates that the factor influencing the digital economy is customer pressure of 30.1 % And the factor that has a significant negative impact is the eligibility advantage of negative 8%. The comparison of the variance value of each factor has a direct impact on the score on the digital economy variable, which in turn will provide a value for the profitability of the Rumah UMKM income in Desa Perkebunan Tanjung Kasau, Batubara through this research, it can also be concluded that the digital economy which is applied to entrepreneur houses in the Tanjung Kasau Plantation Village can increase business profitability by evaluating the feasibility gain factors that were previously negative and evaluating all factors to increase the value of factors that are a will be generated in the future

References

- Afifah, A.N., Najib, M., Sarma, M., 2018. Digital Marketing Adoption and The Influences Towards Business Successes of MSMEs Creative Sector In Indonesia and Malaysia. *Journal of Applied Management* 16 (3), 377-386.
- Cravens, D.W., Piercy, N.F., 2009. *Strategic Marketing: Ninth Edition*. McGraw-Hill Companies, New York.
- Hair, J.F., Sarstedt, M., Hopkins, L., Kuppelwieser, V.G., 2014. Partial Least Squares Structural Equation Modeling (PLS-SEM) An Emerging Tool in Business Research. *European Business Review* 26 (2), 106-121.
- Hameed, M.A., Counsell, S., Swift, S., 2012. A conceptual model for the process of IT innovation adoption in organizations. *Journal of Engineering and Technology Management*, 358-390.
- Shaltoni, A.M., West, D., Alnawas, I., Shatnawi, T., 2017. Electronic Marketing Orientation in the SMEs Context. *European Business Review*, 1-12.
- Shmallan, A.B., 2016. Compare the characteristics of male and female entrepreneurs as explorative study. *Journal of Entrepreneurship & Organization Management* 5 (4).
- Stokes, R., 2013. *eMarketing: The Essential Guide to Marketing in A Digital World*. Quirk eMarketing (Pty) Ltd, Cape Town.
- Tornatzky, L.G., Fleischer, M., 1990. *The Processes of Technological Innovation*. Lexington Book, Massachusetts.
- Vrchota J, Volek T, Novotna M. 2019. Factor Introducing Industry 4.0 to SMES. *Social Science*.1-10.
- Yamin, S., Kurniawan, H., 2011. *Generasi Baru Mengolah Data Penelitian degan Partial Least Square Path Modelling: Aplikasi dengan Software XLSTAST, SmartPLS, dan Visual PLS*. Salmeba Infotek, Jakarta.

Yousaf, Z., Sahar, N., Majid, A., Rafiq, A., 2018. The Effects of E-Marketing Orientation on Strategic Business Performance: Mediating Role of ETrust. *World Journal of Entrepreneurship, Management and Sustainable Development*, 1-12.