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Digital Innovation Strategy: Performance of Coffee SMEs in Industrial Era 4.0

N.A Hamdani[1], A.O Herlianti[2]
Universitas Garut
nizar_hamdani@uniga.ac.id

ABSTRACT

Disruption in the industry 4.0 era encouraged SMEs to improve their business performance by creating digital innovation strategies. The purpose of this study is to analyze the effect of digital innovation strategies on the performance of Coffee SMEs in Garut, West Java. The method used was an explanatory survey method at the Coffee SMEs. Data processing and analyzing the relationship in the proposed structural model using SmartPLS 3. The results of this study reveal that the digital innovation strategy has a positive effect on the performance of Coffee SMEs.

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INTRODUCTION

The era of industrial revolution 4.0 became a challenge faced by Coffee SMEs in Garut Regency to improve its business performance. The Problem of adapting to new technology can be an advantage in the current competition in the coffee business (Huang, Kim, Sadri, Dowey, & Dargusch, 2019). The level of profit can be used as a performance benchmark for some or all activities of SMEs (Anggadwita & Mustafid, 2014). In more detail, performance SMEs can use a reference to a number of standards such as costs that are projected on the basis of efficiency, accountability and accountability of management and the like (Wiklund & Shepherd, 2005). The topic of business performance or business performance is an exciting topic of the evolution of strategic management, 36% of research in strategic areas focuses on business performance. SMEs business performance research related to strategy is still small, especially those related to digital innovation strategies. The issue of business performance is currently a concern for researchers, especially at the Coffee SMEs in Garut Regency.

Measuring business performance in the current economic environment is an essensial issue for academics and company managers (Nur, Zulkiffli, & Perera, 2011). A company to be able to compete in a competitive market must prepare itself early both for the vision of changes in the shape, condition of the company, and the arena of present and future competition to improve business performance. Basically explained by its performance over a specific time (Al-Matari, 2014). Success in creating excellent business performance is largely determined by proper corporate strategy planning, and this is demonstrated by implementing steps in strategic management (Karel, Adam, & Radomír, 2013).

How to improve company performance has always been a relevant important field of research. Researchers have analyzed company performance through various perspectives (Yeniyurt, Wu, Kim, & Cavusgil, 2019).

Business performance is a simple concept for some companies, and a complex idea for others (Raymond, Marchand, & St-Pierre, 2013) differences in industrial structure due to differences in the wealth of its resources, both tangible and non-existent resources. Form and ability and expertise in managing these resources (Hamdani, 2018). Strategic management a set of internal analysis of the strengths and weaknesses of the company, and external analysis of the opportunities and threats of the company, as well as choices that allow the company to choose strategies that are able to compete and excel for the achievement of company performance (Hamdani, Abdul, & Maulani, 2019).

Management has a responsibility in the formulation and implementation of strategies to create competitiveness by using existing resources (Raymond et al., 2013). Strategy measurement is vital as a basis for controlling a company to improve its performance. (Guillén, 2006). Therefore, the strategic goals that form the basis of performance measurement need to be determined, and the strategic initiatives to set these goals to be identified. (Astuti, 2005).

Adaption of new technologies and create digital innovations. The importance of this innovation is in line with (Reguia, 2014) that change built by creativity can create competitiveness to improve business performance. The use of technology applications in conducting business transactions allows transactions in the international market (Ongori & Migiro, 2010). The most critical factor for the implementation of this information technology application to run well, it takes real effort from the government in providing training as well as hardware and networking. ICT influence innovation, this was stated by (Zoroja, 2016) who explained that there was a significant influence between the adoption of ICT with an electronic internet approach to innovation. The purpose of this study, among others, is to analyze the effect of digital innovation strategies on the performance of Coffee SMEs in Garut.

RESEARCH METHODS

The methodology used in this research is an explanatory survey, which is a type of research that discusses the influence of independent variables on the dependent variable and tests the hypothesis that has been formulated. The population of this research is Coffe SMEs in Garut, with 30 business units as the sample used. The data collection method in this research is to use a questionnaire method. The sampling technique used in this study is Probability Sampling, which is a sampling technique to provide equal opportunities for each member of the population to be elected as a sample member

RESULTS AND DISCUSSION

Average variance extracted, and discriminant validity. The first three measurements are usually called grouped in converge average variance extracted, and discriminant validity. The first three measurements are usually called grouped in convergent validity.

Convergent validity consists of three tests, namely item reliability (validity of each indicator), composite reliability, and average variance extracted (AVE). Concurrent validity is used to measure how much the existing signs can explain the dimensions. It means that the higher the convergent validity, the greater the ability of the indicator to apply its dimensions. Reliability items are testing and indicator validity. The testing of item reliability (indicator validity) can be standardized from the value of the loading factor (standardized loading). The loading value of this factor is the magnitude of the correlation between each indicator and its construct. The loading factor value above 0.7 can be said to be ideal, meaning that the sign can be said to be valid as an indicator to measure constructs. A Standardized loading factor above 0.5 is

acceptable. While the normalized loading factor value below 0.5 can be seen from the Chin (1998) model. The following are the item reliability values that can be seen in the standardized loading column in Table 1.

TABEL 1. ***REABILITY ITEM***

Latent Variable	Manifest Variables	Standardized Loadings
Digital Innovation Strategy	DIS1	0,760
	DIS 2	0,903
	DIS 3	0,824
	DIS 4	0,922
SMEs Performance	SP1	0,785
	SP2	0,834
	SP3	0,873
	SP4	0,823

Digital Innovation Strategy (DIS) variables are explained by four indicators namely value proposition (DIS1), digital evolution scanning (DIS2), skills (DIS3), and improvisation (DIS4) with loading factor DIS1 value of 0.760, DIS2 of 0.903, DIS3 of 0.824, and DIS4 of 0.922. All Digital Innovation Strategy indicators are above 0.7, so the index can be said to be valid with the highest level of validity being the DIS4 indicator while the lowest is the DIS1 indicator.

Furthermore, the SMEs Performance variable is explained by four indicators namely Flexibility (SP1), Time (SP2), Quality (SP3), and Finance (SP4) with a loading factor value of SP1 of 0.785, SP2 of 0.834, SP3 of 0.873, and SP4 amounted to 0.898. All SMEs Performance indicators are above 0.7, so the indicator can be said to be valid with the highest level of validity being the SP4 indicator while the lowest is the SP1 indicator.

The statistics used in the composite reliability or reliability of the extract are Cronbach's alpha and D.G rho (PCA). Cronbach's alpha and D.G rho (PCA) values above 7.0 indicate that the construct has high reliability or reliability as a measurement tool. A value of 0.7 or above means acceptable and above 0.8 and 0.9 means very satisfying. Following are the composite reliability values in Table 2.

TABEL 2. ***COMPOSITE RELIABILITY***

Latent variable	*Dimensions*	Cronbach's alpha	D.G. rho (PCA)
Digital Innovation Strategy	4	0,875	0,893
SMEs Performance	5	0,900	0,919

Based on Table 2 shows that the value of Cronbach's alpha and D.Gho (PCA) for the Digital Innovation Strategy variable is 0.875 and 0.893, so it is said to have very satisfying reliability. The SMEs Performance variable which has a Cronbach's alpha value of 0.900 and D.G rho (PCA) of 0.919 so that it can be said that the reliability level is very satisfying.

Average variance extracted (AVE) describes the amount of variance that can be explained by items compared to the variance caused by measurement error. The default is if the AVE value is above 0.5, then it can be said that the construct has good convergent validity. This means that latent variables can explain an average of more than half the variance of the indicators. The following are the results of convergent validity, which are explained through Average Variance Extracted (AVE) in Table 3.

TABEL 3. ***CONVERGENT VALIDITY***

Latent Variable	Mean Communalities (AVE)
Digital Innovation Strategy	0,731
SMEs Performance	0,711

Based on Table 4.16 shows that the AVE Digital Innovation Strategy is 0.731, SMEs Performance is 0.711. The value of both variables is above 0.5, so the construct has good convergent validity where latent variables can explain an average of more than half the variance of the indicators.

The amount of contribution of each variable can be seen from the path coefficient (path coefficient) as follows:

FIGURE 1 STRUCTURAL DIAGRAM

Based on the results of data processing, it can be seen that the relationship between DIS and SP is significant, with a T-statistic value of 2.488 (> 1.96). The original sample estimate value is positive, which is equal to 0.636, which indicates that the direction of the relationship between DIS and SP is positive.Thus the hypothesis in this study, which states that "DIS (Digital Innovation Strategy) affects the SP (SMEs Performance)," is accepted.

The results of this study are in line with research (Teece, 2018), which states that digital innovation strategies play an important role in determining the innovation capability of a company and see its commitment to innovation investment. Small and Medium Enterprises (SMEs) are no longer just sources of raw materials and components, but continue to develop as a means of driving new sources of ideas (Hamdani, Solihat, & Maulani, 2019). (Hinings, Gegenhuber, & Greenwood, 2018). A view that the digital innovation strategy is an integrative part of the mission, goals, and budget for innovation that has a positive impact on the company's financial performance. Innovation is a crucial source of competitive advantage that determines the economic success of every organization (Vega & Chiasson, 2019). (Nylén & Holmström, 2015). Prove that there is a positive relationship between competitive advantage and technological innovation. Innovation is one area taalways affects other areas. Innovation can also change or exploit change.

CONCLUSIONS AND RECOMMENDATION

Based on the description of the theory and the results of research conducted using verification analysis using PLS on innovative digital strategies to improve the performance of MSME Coffee, it can be concluded that the description of the digital innovation strategy on SMEs can be seen from its dimensions consisting of 1) value proposition, 2) digital evolution scanning, 3) skills and 4) improvisation. It shows that the innovative digital strategy of SMEs felt by activists of Coffee SMEs in Garut Regency can be said to be overall good and show positive results. It can be concluded that research on digital innovation strategies has a positive effect on the performance of Coffee SMEs.

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