Research Paper

Analysis of the Relationship between Resource-Based View and Knowledge Management with Firm Performance

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Abstract-*This study aims to analyze how startup businesses make strategic management policies with a resource-based view and knowledge management in improving company performance. The data analysis method used in this study is the Structural Equation Model (SEM) based on Partial Least Square (PLS) to test all hypotheses. The object of this research is 164 startup businesses operating in Sumatra based on the Mapping Database of Startup Indonesia in 2021. The results show that integrating the resource dimension for resource-based views and knowledge management has a significant positive effect on company performance. Meanwhile, the resource reconfiguration dimension for the resource-based view has no significant effect on company performance. The research model tested empirically in this study can provide a thorough understanding for practitioners and academics in analyzing the topic of management strategy.*
Index Terms- *resource-based view, knowledge management, firm performance*

I.   Introduction

The government's strategy has always been to encourage the development of new industrial sectors so that they do not only focus on traditional industries, which mainly refer to labour-intensive, manufacturing, and processing industries. Emerging industries are the key to determining a country's core competencies; at the same time, it is also the core of the implementation of national strategies such as the United States Internet, Germany's Industry 4.0, and China's 2025 (Ma, Sun, Gao, & Gao, 2019). Developing industries can be grouped into seven industries: energy-saving and environmental protection, new-generation information technology, biology or biotechnology, high-end equipment manufacturing, new energy, new materials, and new energy vehicles (Prud'homme, 2016). Companies in emerging industries face more resource utilization and integration challenges due to the characteristics of short technology upgrade cycles, unclear market structures, and uncertain customer demands.

The Indonesian government has explicitly stated its encouragement to make Indonesia one of the countries with the largest digital industrial power, with a vision of Indonesia as The Digital Energy of Asia. The strategy it implements is a technology-based startup business. The company is categorized as a startup business by meeting several characteristics: the company's age is less than three years, the number of employees is less than 20 people, it is still in the development stage, generally operates in technology and websites. Startup businesses in Indonesia can be classified into content creators, fintech, e-commerce, edutech, healthtech, digital tourism, and others (MIKTI dan Teknopreneur Indonesia, 2021). In addition, the development of a creative industry centre as an Innovation Hub and Digital Innovation Lounge from Telkom.

To survive in the competition and generate profits, the startup business as a growing industry must carry out strategic management. One strategic management is the resource-based view, an approach with capability and resources as the primary competitive sources in the industry where they compete. The approach is in the form of different grouping assets, both tangible and intangible, and the capabilities that determine the efficiency and effectiveness of the company's activities. The resource-based view perspective states that

companies in an industry can develop different resources and capabilities to create competitive advantages that enable the development and improvement of company performance in the short and long term(Ferreira & Fernandes, 2017). The company's resource management strategy has also begun to emphasize resource integration and reconfiguration as an essential concern in the resource-based view theory as an essential skill for company development (Ma et al., 2019).

Knowledge management processes based on a knowledge-based view and resource-based view will generate knowledge, store knowledge, share knowledge and apply the knowledge supported by identifying knowledge and formulating goals in every aspect of the organization (Mahdi, Nassar, & Almsafir, 2019). Furthermore, knowledge management is essential for top management in determining organizational strategies that affect firm performance (Muthuveloo, Shanmugam, & Teoh, 2017; Orga, Nnadi, & Chioma, 2018), so it is essential to explore the relationship between resource-based view and knowledge management with firm performance for startup businesses in Indonesia.

II.   Literature Review and Hypothesis Development

Firm performance is the company's ability to gain financial benefits from innovation in a particular market. In the resource-based view theory, firm performance usually refers to profit, which generally describes the residual income generated by the company after paying costs for the resources and capabilities used to generate that income (Ma et al., 2019). However, it can also describe other financial performance measures such as return on investment, cost-benefit, and budget impact (Holdford, 2018). Firm performance measurement can be done with two approaches, namely market performance and financial performance. Based on signalling theory, the company's financial performance will show the company's current condition and future growth potential (Wijayanto, Suhadak, Dzulkirom, & Nuzula, 2019). Companies must advance the understanding of current and future information systems by applying a resource-based view internally to drive company performance (Gupta, Tan, Ee, & Phang, 2018). Orga et al., (2018) stated that strategic knowledge can increase company activities that result in competitive advantage, which impacts increasing sales growth. Puryantini & Arfati, (2017) revealed that innovation is a mediating variable in knowledge management and firm performance. Management in knowledge creation, especially tacit knowledge, is essential for top management in improving organizational performance (Muthuveloo et al., 2017).

The Effect of Resource-Based View on Firm Performance

Resources and competencies have an influence on firm performance (Holdford, 2018). Resources are an important driving force for companies to get firm performance (Davcik & Sharma, 2016). The progress of understanding current and future information systems is an internal company resource so that the resource-based view of information systems can be a driving factor for company performance (Gupta et al., 2018). Resource-based view with VRIN resources (Valuable, Rare, Inimitable, Non-substitutable) has a significant positive effect on increasing company performance (Adnan, Abdulhamid, & Sohail, 2018; Pearson, Pitfield, & Ryley, 2015). The development of resource-based view cloud shows that when the information management infrastructure is changed, it results in cost savings and efficiencies that lead to sustainable company growth(Mitra, Regan, & Sarpong, 2017). The effectiveness of the resource-based view theory with two resource management methods, namely resource integration and resource reconfiguration (Ma et al., 2019). Based on the results of previous studies, the following hypotheses can be formulated:

H_1: resource integration has a significant positive effect on firm performance.
H_2: resource reconfiguration has a significant positive effect on firm performance.

The Effect of Knowledge Management on Firm Performance

Knowledge has been considered a strategic resource that needs to be managed to generate competitive performance. Therefore, management will expect the company to be successful by exploiting knowledge assets methodically(Bolisani & Bratianu, 2017). Knowledge management of knowledge assets owned by the organization can positively improve company performance (Torres, Ferraz, & Santos-Rodrigues, 2018). Increasing employee knowledge directly increases the company's sales growth (Orga et al., 2018). Knowledge management directly affects company performance, while innovation does not play a role in the relationship of knowledge management to organizational performance (Puryantini & Arfati, 2017). Tacit knowledge management significantly influences organizational performance (Muthuveloo et al., 2017). Based on the results of previous studies, the following hypotheses can be formulated:

H_3: Knowledge management has a significant positive effect on firm performance.

Figure 1 below is a chart of the conceptual framework of this research. This conceptual framework illustrates the influence of the independent variable on the dependent variable with a sample of startup businesses in Indonesia.
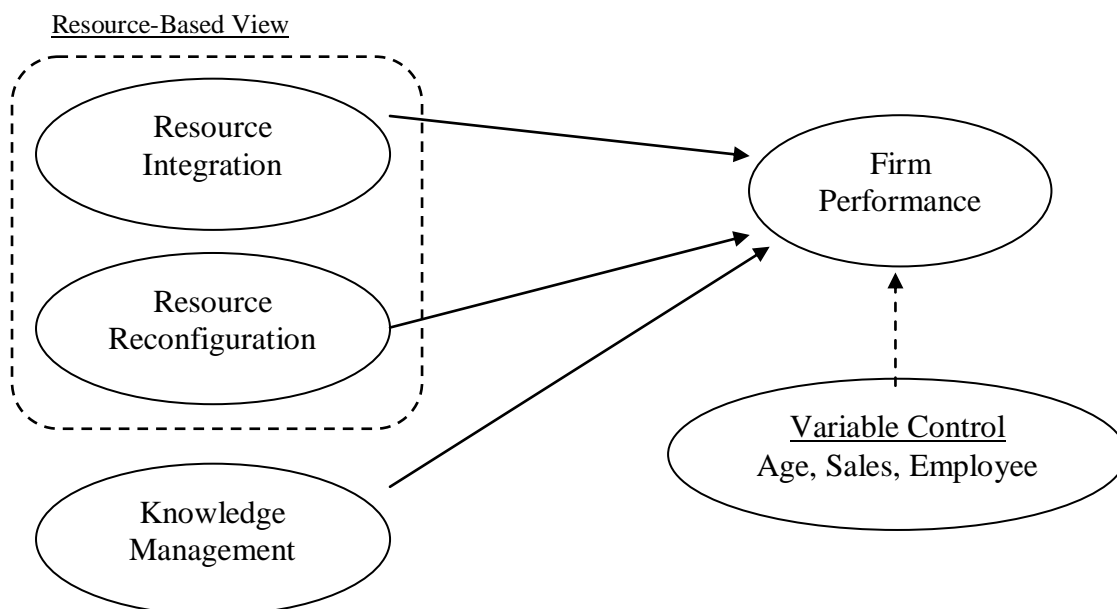
Figure 1. Conceptual Framework

III.   Research Methodology

This research is explanatory research, which aims to explain the influence between research variables through hypothesis testing based on field data (Sekaran & Bougie, 2016). The variables in this study are resource integration, resource reconfiguration, knowledge management, and firm performance. The population of this research is a startup business in Sumatra. The population of startup businesses in Sumatra is determined based on data from Mapping and the Startup Indonesia Database in 2021. The primary data collection method in this study was conducted through a questionnaire. The instrument used in this research is a questionnaire that fits the research criteria. The following variables will be explained operationally in this study, among others:

• Firm performance is operationalized through management's perception of the main performance categories, namely marketing, sales growth, profitability and market share (Ferreira & Fernandes, 2017).

• Resource-based view is determined by two resource management methods, namely resource integration and resource reconfiguration. Resource integration is operationalized through management's perception of the company's emphasis on the use of different resources. Resource reconfiguration is operationalized through management's perception of the development of organizational routines on the resource structure, according to the following dimensions: improvement and creation (Ma et al., 2019).

• Knowledge management is operationalized through management's perception of resource management with the following dimensions: intellectual capital, information systems, and processes (Torres et al., 2018).

The analytical method used is Structural Equation Modeling (SEM) based on Partial Least Square (PLS). The PLS-SEM model can be evaluated by assessing the outer and inner models. Evaluation of the outer model can be done through confirmatory factor analysis, namely, testing the validity and reliability of the items forming the latent construct. The evaluation of the inner model is done by testing the significance to test the effect between constructs or variables (Ghozali & Latan, 2017).

IV.   Results and Discussions

The population in this study are all startup business leaders in Sumatra. The total number of questionnaires distributed in this study amounted to 180 questionnaires. The questionnaires that were received back were 164 questionnaires with a response rate of 91.11%. The validity test results after the loading factors were issued that did not meet the requirements were valid were all loading factors were more than 0.60, and the AVE was more than 0.50. The reliability test results showed that the value of Cronbach's Alpha and Composite Reliability was more than 0.60, so it was declared reliable. Based on testing the validity and reliability, the measurement model can be continued to test the structural model. Data on startup business characteristics and respondent demographics from the questionnaire will be presented in the following descriptive statistics:

Table 1. Descriptive Analysis

Distributed Questionnaire	Number of Respondents
Distributed questionnaire	180
Questionnaire that doest not return	16
Questionnaire used in the analysis	**164**

Respondent data based on domicile:	Domicile	Amount	Percentage
	Medan	49	29,88%
	Pekanbaru	46	28,05%
	Banda Aceh	32	19,51%
	Padang	16	9,76%
	Palembang	14	8,54%
	Batam	5	3,05%
	Bengkulu	1	0,61%
	Jambi	1	0,61%
	Total	**164**	**100,00%**
Respondent data based on the type of business entity:	**Type of Business Entity**	**Amount**	**Percentage**
	Corporate	68	41,46%
	Partnership	12	7,32%
	Private	84	51,22%
	Total	**164**	**100,00%**
Respondent data based on businees sector:	**Business Sector**	**Amount**	**Percentage**
	E-Commerce	24	14,63%
	Content Creator	20	12,20%
	Edutech	16	9,76%
	Media	13	7,93%
	Digital Logistic	8	4,88%
	Fintech	7	4,27%
	Healthtech	7	4,27%
	Game Developer	6	3,66%
	Digital Tourism	5	3,05%
	Agrotech	3	1,83%
	General	55	33,54%
	Total	**164**	**100,00%**
Respondent data based on business age:	**Business Age**	**Amount**	**Percentage**
	Less than 1 year	95	57,93%
	1 to 2 years	52	31,71%
	2 to 3 years	12	7,32%
	More than 3 years	5	3,05%
	Total	**164**	**100,00%**
Respondent data based on sales:	**Sales**	**Amount**	**Percentage**
	Less than IDR 300 million	38	23,17%
	IDR 300 million to IDR 2.5 billion	97	59,15%
	More than IDR 2.5 billion	29	17,68%
	Total	**164**	**100,00%**
Respondent data based on number of employees:	**Employees**	**Amount**	**Percentage**
	Less than 5 people	38	23,17%
	5 people to 15 people	97	59,15%
	More than 15 people	29	17,68%
	Total	**164**	**100,00%**
Respondent data by gender:	**Gender**	**Amount**	**Percentage**
	Male	154	93,90%
	Female	10	6,10%
	Total	**164**	**100,00%**

Respondent data by age:	Age	Amount	Percentage
	21 to 30 years old	3	1,83%
	31 to 40 years old	148	90,24%
	41 to 50 years old	13	7,93%
	51 to 60 years old	-	0,00%
	Over 60 years old	-	0,00%
	Total	**164**	**100,00%**
Respondent data based on education level:	Education Level	Amount	Percentage
	Senior High School	2	1,22%
	Diploma	-	0,00%
	Bachelor	151	92,07%
	Master	10	6,10%
	Doctor	-	0,00%
	Other	1	0,61%
	Total	**164**	**100,00%**

Variable Characteristics:	Variable	Dimension	Mean	Std. Deviation
	Resource Integration		4,281	0,917
	Resource Reconfiguration		4,166	0,844
		Improvement	4,244	0,682
		Creation	4,140	0,898
	Knowledge Management		4,289	0,768
		Intellectual Capital	4,218	0,776
		Information Systems	4,278	0,763
		Processes	4,409	0,762
	Firm Performance		4,015	0,851

Based on the Goodness of Fit Model test results, firm performance has a moderate model with an Adjusted R-Square value of 0.424. The results of the path coefficients, T-Statistics, and P-Values values obtained through the bootstrapping process are as follows:

Table 2. Hypothesis Test Results

Variable	Coefficient	T-Statistics	P-Value	Result	Conclusion
Resource Integration	0.224	2.993	0.001	Significant	H_1: Accepted
Resource Reconfiguration	0.059	0.675	0.250	Not Significant	H_2: Rejected
Knowledge Management	0.457	5.803	0.000	Significant	H_3: Accepted

Based on the results of hypothesis testing in Table 2 above, hypothesis one (H_1) and hypothesis three (H_3) can be accepted. These results can be concluded that the dimensions of a resource-based view with resource integration and knowledge management significantly affect firm performance. These results are consistent with Adnan et al., (2018), Bolisani & Bratianu, (2017), Davcik & Sharma, (2016), Gupta et al., (2018), Ma et al., (2019), Mitra et al., (2017), Muthuveloo et al., (2017), Orga et al., (2018), Pearson et al., (2015), Puryantini & Arfati, (2017), Torres et al., (2018).

The results of hypothesis testing in Table 2 above also show that hypothesis two (H_2) is rejected. These results can be concluded that the dimension of resource-based view with resource reconfiguration has no significant effect on firm performance. These results are inconsistent with Bolisani & Bratianu, (2017), Muthuveloo et al., (2017), Orga et al., (2018), Puryantini & Arfati, (2017), Torres et al., (2018).

V.   Conclusions and Implications

Applying resource-based views and knowledge management in startup businesses can positively improve firm performance. The study results show that the startup business by applying the resource integration method in a resource-based view and knowledge management has a significant positive effect on firm performance. On the other hand, the resource reconfiguration method in the resource-based view has no significant effect on improving firm performance.

The implication is that startup businesses using new resources to enter new markets will generate more profits as an assessment of firm performance. In addition, startup businesses with limited employees will focus more on creating uniqueness in generating profits. However, improving and creating standard organizational processes in resource reconfiguration is not significant in improving firm performance.

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