

The Role of Supply Chain Management Practices in Mediating the Effect of Knowledge Management on Company Performance: A Study on Laptop Shops in Ambon City

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Abstract

The purpose of this study was to analyze the effect of knowledge management on company performance through supply chain management practices in laptop shops in Ambon city. The population in this study were 33 owners/employees at a laptop shop in Ambon city. The analytical technique used in this research is Partial Least Square (PLS). The results showed that knowledge management has a positive effect on company performance, knowledge management has a positive influence on supply chain management practices and supply chain management practices have a positive effect on company performance.

Keywords: supply chain management practice, knowledge management, company performance

1. Introduction

The dynamics of the external environment in which the company operates as an open system is constantly improving. Companies that are accustomed to relying on the ability to predict trends in the next five to ten years to develop business strategies are frustrated that change happens so fast that it can't be predicted in advance. Product life cycles are getting shorter and consumer tastes are constantly changing as lifestyles change and resources become scarce. Competition is also increasing, coupled with the emergence of new competitors from different industries with different strategies. Thin margins reduce the flexibility and ability of the company to continue to grow. Companies are also racing to find new sources of competitive advantage that are rare, difficult to imitate, and sustainable where possible.

Companies with learning organizations are companies that have expertise in creating, retrieving and transferring knowledge, and modifying its behavior to reflect new knowledge and experiences. Learning organizations resist through constant self-assessment and experimentation.

In the process of struggle to achieve company goals, employee performance and company performance is one of the important factors in achieving company goals. Good employee performance can be seen in terms of quality, quantity, and timeliness, and it will be easier for a company to achieve company goals if employee performance meets predetermined standards. In addition to employee performance, company performance is an important factor in achieving company goals, and good company performance can be seen from financial performance and operating performance (Falah & Human, 2017). Walczak (2008) in (Stephanus, 2012), states that as the world becomes more dynamic, learning organizations must adapt easily to be able to respond to the different needs of different organizations around the world.

The business world today faces the challenge of how to survive in a constantly changing business environment. Meanwhile, stakeholder challenges are characterized by consumer demands to improve the quality of goods and

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services produced in the surrounding environment, service quality, and organizational social responsibility. These challenges require organizations to improve their competitiveness in domestic and international markets (Aldi, 2005).

Government research institutes are research institutions that use human resources as a source of knowledge, innovation and renewal. Research institutions often rely on informal communication between individuals and operate on a human basis. This causes disruption in the dissemination of knowledge, preventing important information from being properly communicated between individuals within the institution. For this reason, knowledge in government research organizations needs to be managed and documented using knowledge management concepts, which organizations or institutions use to identify, create, interpret, and distribute what will be reused, known, and learned within an organization. These activities are often linked to organizational goals and are designed to achieve specific outcomes (Puryantini et al., 2017).

Performance is the process used by leaders to determine whether employees perform their work in accordance with their duties and responsibilities, so the steps that will be used to express performance are chosen based on the observed organizational state Kaplan and Norton (1996) in (Puryantini et al., 2017). Introducing the Balanced Scorecard, which emphasizes all financial and non-financial measures, as part of the employee information system at all levels of the organization/company.

To develop technology independently, government research institutions must have knowledge management, skills, and human resource capabilities (HR) to absorb science and technology. The purpose of knowledge management is to make it easier for employees of government research institutions to utilize, explore and share knowledge, thereby encouraging the process of creativity and technological innovation in the wider environment of government research institutions, and enabling each employee to quickly improve their abilities. . In government research institutions, it is hoped that new innovations will be born. The difference between information management and knowledge management is that information management focuses on managing explicit knowledge, whereas knowledge management focuses on how to acquire tacit knowledge and make it explicit for others to use and exploit, which is a difficult point. This is also a challenge for government research institutions (Puryantini et al., 2017).

The current era of globalization is marked by the rise of innovation and competition, as well as the rapid development of science and technology. Awareness of increasing competition requires a paradigm shift based on the analysis of certain fields of science and improvement of human resource capabilities so that the application of management science becomes an important source of continuous innovation (Gochhait, et al. 2014). Companies in improving company performance are required to be able to know and utilize and empower all their resources, management in a company must be able to use intangible resources, namely knowledge with the aim of achieving the final target set by the company (Hiit, Ireland, Hoskisson, et al. 2013).

In today's knowledge-based era, especially in the world of technology, Knowledge is seen as a key strategic resource for the survival, stability, growth and improvement of enterprises. Furthermore, knowledge is considered as the basis for developing key capabilities that will improve company performance. Knowledge is a key resource and plays an important role in achieving competitive advantage, sustainability and performance. Knowledge is one of the competitive assets that everyone must have to develop their career management skills by acquiring knowledge and skills (Hasan and Al-hakim, 2013). Meanwhile, according to Gaur et al., (2019) Knowledge management competence uses a narrower focus, seeking to acquire.

According to (Okongwu et al., 2015) Supply chain management practices are an important factor for companies to improve and improve company performance to remain competitive in the face of global competition. The characteristics of supply chain management practices are expected to be able to explain the purpose of supply chain management practices to improve the performance of each department of the company. This can be achieved through the application of practices from supply chain management practices (Attia, 2016). Every company, whether big or small, must carry out supply chain activities. This research is important to do to achieve the goals set by the company and can improve performance within the company.

Seeing this, Laptop shops in Ambon city must have Knowledge Management that has a competitive advantage that continues to compete in the business world. Supply chain management practices As a way for companies to compete with efficiency in terms of operational costs and more efficiently enter a wider market. Through knowledge management, Laptop Shops in Ambon are able to develop the company's business, often collaborate, share information, plan, and even change their business practices to improve performance together with suppliers, customers and other support service providers.

This study aims to analyze the effect of knowledge management on company performance, analyze the effect of knowledge management on supply chain management practices and analyze the role of supply chain management practices on company performance.

2. Literature Review

2.1 Management Knowledge

Knowledge management is a collection of tools, techniques and strategies to maintain, analyze, organize, improve, and share insights and experiences. This understanding and experience is built on knowledge, either embodied in the individual or embedded in the organization's actual processes and applications.

If a company wants to get maximum benefit from the knowledge it has, it must manage its own knowledge through knowledge management. Swann et al (1999) in (Munir, 2010) defines knowledge management as, "... any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations." Through knowledge management, organizations consciously identify the knowledge it has and use it to improve performance and generate innovations. With the support of knowledge management, the organization also actively identifies and acquires high quality knowledge that exists in the external environment of the organization.

Knowledge can be a long-term competitive advantage when an organization knows something better than its competitors. Unlike other traditional resources that can be used less, knowledge actually increases with use. The more often knowledge is used, the more valuable it is to the organization. By making knowledge management an organizational competitive advantage, knowledge management must be utilized and applied practically by companies. The specific form of implementation is the formulation of a knowledge-based organizational strategy. Knowledge-based strategies are expected to further explore the uniqueness of an organization (Aldi, 2005).

2.2 Company Performance

According to Kaplan and Norton (1996) in (Falah & Human, 2017) company performance of a company can be measured using the Balanced Scorecard, a management system that can be measured and controlled quickly, accurately, and comprehensively. Performance measurement looks at business units from four perspectives, namely Finance, Customers, and Internal Business Processes. And the process of learning and growing (Learning and Growth).

Company performance is the performance of the company's overall condition over a certain period of time, and is the result or achievement of the company's operating activities that utilize its resources. Performance is a general term used for some or all of the actions or activities of an organization over a certain period of time with reference to a standard amount (such as past or projected costs) on the basis of efficiency, accountability, or managerial accountability, etc Srimindarti (2004) in (Andriani, 2014).

According to Payaman J. Simanjuntak (2011) in (Hery, 2013) The definition of company performance is: "Company performance is the sum or accumulated performance of all organizational units and is equal to the sum of the performance of all people or individuals working in the company."

The definition of company performance according to Tika (2006) in (Hery, 2013) are: "Company performance is a function of the results of work/activities within the company, which is influenced by factors both inside and outside the organization, to achieve the goals that have been set within a certain period of time."

From the definition, it can be concluded that company performance is the success of all organizational units in achieving company goals.

2.3 Supply Chain Management Practice

Supply chain management was first popularized in 1982 as an inventory management method that emphasizes the supply of raw materials. In the 1990s, the issue of supply chain management was on the agenda of senior management as a company strategic approach. Senior managers recognize that competitive advantage needs to be supported by the flow of goods from upstream to downstream, where end users are efficient and effective. Of course, information flows

at the same time. The flow of goods from upstream to downstream must go through several stages, namely suppliers, factories, distribution, retail and end consumers (Maiti & Bidinger, 1981) in (Alim, 2009).

Supply chain emphasizes more on a series of material and information flows, while supply chain management places more emphasis on efforts to integrate a collection of supply chains. According to Maiti & Bidinger (1981) in (Hadiguna, 2016) in general, the supply chain consists of three stages, namely procurement, production and distribution. Supply chain management is part of modern management practices that companies need to improve their competitiveness. Various industrial sectors have attracted the attention of researchers in the field of supply chain management. The need for sustainability issues is the driving force behind the development of sustainable supply chain management.

Supply chain management is a set of methods for effectively integrating suppliers, entrepreneurs, warehouses and other stores. The resulting product can be distributed in the right quantity, location, and time to minimize costs and meet customer needs. The supply chain is designed to make the entire system efficient and effective, minimizing transportation and distribution costs for raw materials, work in process, and finished goods inventory Maiti & Bidinger (1981) in (Marimin & Maghfiroh, 2013).

The supply chain concept is a new concept to look at logistics problems. The old concept viewed logistics as more of an internal problem for each company, and solutions focused on solving it within the individual company. With this new concept, logistics problems are seen as broader problems starting from basic materials to finished products used by end consumers, namely the supply chain (Maiti & Bidinger, 1981).

Supply chain management practices are a set of methods for effectively integrating suppliers, entrepreneurs, warehouses and stores so that products are produced and distributed in the right quantities, locations and times to reduce costs and meet customer demands (Levi et al, 2000) in (Amalia, 2018).

2.4 Relationship of Knowledge Management to Company Performance

Knowledge management management provides benefits for construction companies and manufacturing industries that act as knowledge management so that company performance is realized in the effective use of company work tools and equipment (Kamara et al, 2002) in (Falah & Human, 2017). It can be seen that knowledge management has a significant influence on company performance.

The results of the path analysis show that the coefficient value is positive which indicates that the knowledge management variable has a significant positive effect on company performance, namely the higher the level of knowledge, the better management same opposite (Falah & Human, 2017).

This research supports the research conducted by Yunia Indraana (2014) in (Falah & Human, 2017) where knowledge management has a significant influence on company performance. Knowledge management is a business concept, encompassing efforts that are organized with mutual consent, coordinated and purposefully managed, organizational knowledge through the processes of creation, structure, organization, deployment and development in 2003 (Falah & Human, 2017).

Hypothesis 1: There is a significant effect of knowledge management on company performance

2.5 Relationship of Knowledge Management to Supply Chain Management Practices

In the business world, in general, supply chain management practices have been used to increase profits through product development based on consumer demand. Increasing market share and competitive advantage of the resulting product is highly dependent on the ability of each chain to use or utilize knowledge in innovative ways. The key to innovation itself is the use of explicit knowledge, which is defined as something that is stored in tangible form in the media or the like, and tacit knowledge, which is defined as knowledge that is still embedded in the form of one's experience, and contains personal experience. trust, etc. All kinds of inauthentic factors, and these things are used by people in the company (II & Pustaka, 2010).

Many authors have contributed to the development of knowledge management capabilities and supply chain management practices, but have remained independent. Supply chain management practices involve the flow of resources throughout the supply chain, including materials, information, and money (Bourland et al., 1996) in (II & Pustaka, 2010). Hall and Andriani (1998) in (II & Pustaka, 2010) it has been mentioned that intangible resources

include knowledge. As such, it is an integral part of integrating knowledge management capabilities into supply chain management practices.

Underlying knowledge management capabilities and supply chain management practices are collaboration, information sharing, trust, partnerships, shared technologies, and changes in how people see themselves and their environment, which will influence how they think about process chain management. The use of information technology in knowledge management competencies in supply chain management practices helps reduce complexity (Eris et al. 2006) in (II & Pustaka, 2010). Knowledge management skills are different from information management skills, which use information technology to organize and communicate information about knowledge. If a supply chain management practice only uses information technology for information management capabilities without considering how to apply existing knowledge, its development will be very limited to gathering knowledge rather than innovating and growing the company (Davenport and Marchand, 2000) in (II & Pustaka, 2010).

According to Hart (2004) in (II & Pustaka, 2010), it is important to incorporate the concept of knowledge management capabilities into supply chain management practices. Supply chain management practices that develop knowledge management capabilities across the entire chain will have a final value that is greater than the total value of each chain.

Hypothesis 2: Knowledge management has a positive influence on supply chain management practices.

2.6 The Relationship of Supply Chain Management Practices to Company Performance

Based on research conducted by Frank Wiengarten et al (2010) in (Stefani & Sunardi, 2014) who mentioned in his research that automotive supply chain cooperation in Germany is multi-faceted and involves information sharing, alignment of incentives and joint decision making and provides additional evidence of supply chain cooperation which should be recognized in future efforts in collaborative supply chain practice as well as research has had a significant impact of great importance is that the quality of information adds value to the performance of information sharing and collaboration in terms of timeliness, accuracy, and relevance. A study conducted by Veneska Stefani et al (2014) in (Stefani & Sunardi, 2014), found that supply chain collaboration has a significant positive impact on the performance of medium-sized food processing companies.

The study was conducted by Ikhwan (2013) in (Stefani & Sunardi, 2014), stated that supply chain orientation has a positive and significant effect on operating performance simultaneously or partially. This research is also in line with research conducted by Fandy Akhmad (2015) in (Stefani & Sunardi, 2014).

Hypothesis 3: Supply chain management practices have a positive effect on company performance.

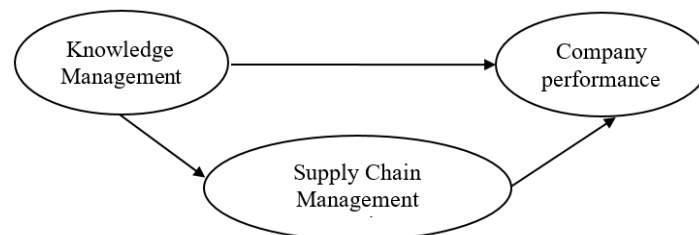


Figure 1. Research Model

3. Research Methods

3.1 Population and Sample

According to (Sugiyono, 2017), population is defined as follows: "Population is a general field consisting of objects/subjects with certain qualities and characteristics that have been determined by researchers to be studied and conclusions drawn". The population in this study is a shop that sells laptops in Ambon City. The total population is 15 shops and not all of this population will be the object of research, so further sampling is necessary.

According to (Sugiyono, 2017), "the sample is part of the number and characteristics possessed by a population. If the population is large, it is impossible for researchers to study everything in the population, for example due to limited

funds, manpower and time, then researchers can use samples to be taken from the population. In sample research there is a sampling technique to determine which sample will be used in the study.

3.2 Analysis Techniques

Partial Least Squares (PLS) it was first developed in the field of econometrics by Herman OA Wold in the 1960s (Martadisastra, 2017). PLS is a powerful analytical model because it can be used for all types of data scales (nominal, ordinal, interval, and ratio) and for more flexible assumptions. PLS can also be said to be a PLS method of structural equation modeling. In the PLS community, the term "path modeling" is preferred over structural equation modeling. Nonetheless, both terms can be found in the PLS literature.

PLS does not assume that the data must follow a certain distribution, such as a normal distribution. The PLS method is distribution-free and the sample size is flexible. PLS can also be used when the theoretical basis of the model is still tentative or when the measurement of each potential construct is still new (Yamin, S. & Kurniawan, 2011). Variant-based PLS is designed with predictive purposes in mind. This is the original concept that the researcher should base on. The main focus of PLS is to maximize the variance of the endogenous constructs that can be explained by exogenous constructs or to identify the constructs that maximize the predictive power of the model.

4. Research Results and Discussion

4.1 Data Quality Test Results

Data quality test includes reliability and validity test. The reliability test was carried out by looking at the composite reliability value generated by the PLS calculation for each construct. The value of a construct is said to be reliable if it gives a composite reliability value > 0.70 Werts et al (1974) in (Imam, 2006).

Table 1. Reliability Test Results

	Composite Reliability	Information
Knowledge Management	0.8492	Reliable
Supply Chain Management Practice	0.9046	Reliable
Company performance	0.9722	Reliable

Source: Primary data processed, 2022.

The knowledge management construct has a Composite Reliability value of 0.8492. The value is above 0.70 as the cutoff value, then all questions about knowledge management are reliable. While the construct of supply chain management practice has a Composite Reliability value of 0.9046 (above the cutoff value), all questions about supply chain management practices are reliable. Furthermore, the company's performance construct has a Composite Reliability value of 0.9722 (above the cutoff value), so all questions about the company's performance are reliable.

Furthermore, the validity test is carried out by using the evaluation of the measurement model (outer) by using convergent validity. Convergent validity of the measurement model with reflexive indicators can be seen from the correlation between each indicator score and its construct score (Ghozali, 2018). Individual reflexive measure is said to be high if it has a correlation of more than 0.70 with the construct to be measured, but according to Chin (1998) for research in the early stages of developing a measurement scale, a value of 0.5 to 0.6 is considered sufficient (Table 2).

The indicators used to measure the construct of knowledge management have a correlation range between 0.7733 to 0.9256, more than the suggested figure of 0.500, this indicates that the questions about knowledge management to measure the construct of knowledge management can be said to be valid. The construct of supply chain management practice is in the correlation range of 0.7393 to 0.9343, this indicates that each indicator of supply chain management practice questions is valid. The indicators for measuring the firm's performance construct show a correlation between 0.9400 to 0.9694, this indicates that the questions on the indicators to measure the firm's performance construct are valid.

The next examination of the evaluation of discriminant validity is to compare the AVE value of each construct with the square of the correlation between the constructs (Table 3).

Table 2. Convergent Validity Results

	Knowledge Management	Supply Chain Management Practice	Company Performance
Process	0.7733	0.2128	0.2820
Technology	0.9256	0.1693	0.6594
Technical Ability	-0.0530	0.7393	0.2093
Structural Ability	0.2351	0.8722	0.2237
Logistics Ability	0.2139	0.9343	0.5277
Strategy	0.4728	0.4252	0.9694
Market	0.7594	0.3336	0.9400
Ability	0.4501	0.5063	0.9685

Source: Primary data processed, 2022.

Table 3. Discriminant Validity Results

	Knowledge Management	Supply Chain Management Practice	Company Performance	Mean Communalities (AVE)
Knowledge Management	1	0.0456	0.3560	0.7274
Supply Chain Management Practice	0.0456	1	0.1899	0.7267
Company performance	0.3560	0.1899	1	0.9204
Mean Communalities (AVE)	0.7274	0.7267	0.9204	0

Source: Primary data processed, 2022.

Based on the results of the table 3, the AVE value for the knowledge management construct is 0.554, while the square of the correlation between the supply chain management practice construct and the firm's performance construct (first row in the table) is smaller than the AVE for the knowledge management construct. While the AVE value for the supply chain management practice construct is 0.683, while the square of the supply chain management practice construct correlation with other constructs (second row in the table) is smaller than the supply chain management practice construct. And the AVE value for the firm's performance construct is 0.550 while the square of the correlation of the firm's performance construct with other constructs (third row in the table) is smaller than the AVE of the firm's performance construct.

4.2 Coefficient of Determination Test Results (R^2)

The assessment of the model with PLS begins by looking at the R-square for each dependent latent construct. Changes in the R-square value can be used to assess the effect of certain independent latent constructs on the dependent latent construct whether it has a substantive effect. The following table is the result of R-square estimation using XLSTAT PLS PM 2022.

Table 4. R Square (R^2) Value (Supply Chain Management Practice)

R^2	F	Pr > F	Critical Ratio (CR)
0.0456	1.4824	0.2326	0.5967

Source: XLSTAT PLS PM 2022 output

The table 4 shows that the R^2 value of the supply chain management practice construct is 0.0456. The higher the value of R^2 , the greater the independent construct can explain the dependent construct, so the better the structural equation. The R^2 value of the supply chain management practice construct is 0.0456, which means 41.5% of the supply chain management practice variance is explained by the knowledge management construct while the remaining 58.5% is explained by other constructs.

The table 5 shows that the R^2 value of the competitive advantage construct is 0.4556. The higher the value of R^2 , the greater the independent construct can explain the dependent construct, so the better the structural equation. The R^2 value of the firm's performance construct is 0.4556, which means that 45.5% of the variance of the firm's performance

construct is explained by knowledge management and supply chain management practices and the remaining 54.5% is explained by other constructs.

Table 5. R Square Value (R²) (Company Performance)

R ²	F	Pr > F	Critical Ratio (CR)
0.4556	12.5534	0.0001	4.3848

Source: XLSTAT PLS PM 2022 output

4.3 Hypothesis Test

The first hypothesis (H₁) states that knowledge management has a positive effect on company performance. The table below shows that knowledge management has an effect on company performance. The effect of the knowledge management construct on firm performance is positive (0.5276) and significant at 0.0006 (3.8265 > 1.658).

Table 6. Results Inner Weights (Company Performance)

Latent Variable	Value	T	Pr > t	Critical Ratio (CR)	Hypothesis
Knowledge Management	0.5276	3.8265	0.0006	4.7253	Received

Source: XLSTAT PLS PM 2022 output.

The second hypothesis (H₂) states that knowledge management has a positive effect on supply chain management practices. The table below shows that knowledge management influences supply chain management practices. The effect of knowledge management constructs on supply chain management practices is positive (0.581) and significant at 0.000 (6.567 > 1.658).

Table 7. Results Inner Weights (Supply Chain Management Practices)

Latent Variable	Value	T	Pr > t	Critical Ratio (CR)	Hypothesis
Knowledge Management	0.2136	1.2175	0.2326	0.8550	Received

Source: XLSTAT PLS PM 2022 output.

The third hypothesis (H₃) states that supply chain management practices have a positive effect on company performance. The table 8 shows that supply chain management practices have an effect on company performance. The effect of supply chain management practices on company performance is positive (0.3231) and significant at 0.0260 (2.3428 < 1.658).

Table 8. Results Inner Weights (Supply Chain Management Practices on Company Performance)

Latent Variable	Value	T	Pr > t	Critical Ratio (CR)	Hypothesis
Supply chain management practices	0.3231	2.3428	0.0260	1.5434	Mines Accepted

Source: XLSTAT PLS PM 2022 output.

4.4 Full Model

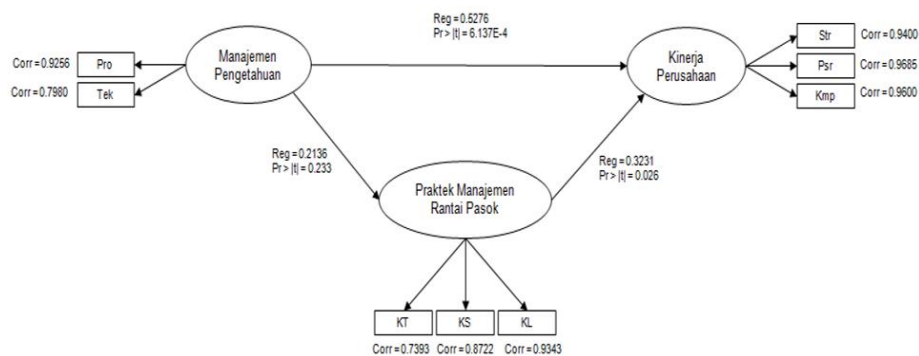


Figure 2. Full Model

5. Conclusion

This study examines the effect of knowledge management on company performance through supply chain management practices at laptop shops in Ambon city. Based on the results of the research, the following conclusions can be drawn:

- a) Knowledge management has a positive impact on the performance of laptop companies in Ambon.
- b) Knowledge management has a positive impact on supply chain management practices for laptop shops in Ambon.
- c) The practice of supply chain management has a positive impact on the company's performance at a laptop shop in Ambon.

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