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THE EFFECT OF SUPPLY CHAIN MANAGEMENT PRACTICES AND SUPPLY CHAIN INTEGRATION ON INFORMATION TECHNOLOGY, INNOVATION AND BUSINESS PERFORMANCE IN THE MANUFACTURING INDUSTRY IN EAST JAVA

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Abstract

The purpose of this study was to examine and analyze the significance of the influence of Supply Chain Management Practices, Supply Chain Integration, Information Technology and innovation on Business Performance in manufacturing companies in East Java. This study uses a survey research design to top management who is responsible for the operations of manufacturing companies in East Java Province, Indonesia on a large scale where the number is 1,231 companies based on data processed by the East Java Industry and Trade Office that received convenience facilities during 2020. Based on the Slovin formula, the research sample required a number of 93 respondents the data analysis technique in this study used Partial Least Square (PLS). The results show (1) Supply Chain Management Practices has a positive and significant effect on Information Technology, (2) Supply Chain Management Practices has a positive and significant effect on Innovation, (3) Supply Chain Management Practices Integration has a positive and significant effect on Business Performance, (4) Supply Chain Integration has a positive and significant effect on Information Technology, (5) Supply Chain Integration has a positive and significant effect on Innovation, (6) Supply Chain Integration has a positive and significant effect on Business Performance, (7) Information Technology has a positive and significant effect on Innovation (8) Information Technology has a positive and significant effect on Business Performance, and (9) Innovation has a positive and significant effect on Business Performance,

Keywords: Supply Chain Management Practices, Supply Chain Integration, Information Technology, Innovation, Business Performance

INTRODUCTION

In the global era, competition in the business world is getting tougher. The economy is always experiencing improvements and developments followed by the number of businesses that always grow to keep up with the times and consumer demand that is increasing and diverse. With this, every company will be competing to be able to meet the needs of customers quickly. Along with the increasingly intense competition in business, a competitive advantage is needed for companies to survive in this business world. In an effort to gain competitive advantage, the company carries out a competitive strategy, one of which can be done by suppressing the

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production costs of an item to the point cost the lowest but still able to meet customer needs that can be done with the application supply chain management for the company. **Supply chain management brings benefits to the organization once implemented successfully, the benefits will be in terms of product quality improvement, and reduced-order, delivery and cycle times, and this will result in customer satisfaction which better. A small number of resources will be used in implementing supply chain management throughout the organization (Riyadi, Slamet, 2020). Product quality reflects the satisfaction of one's product performance appraisal of their expectations. On the other hand, customers are happy and perceive a product as acceptable or high quality when it meets their expectations. On the other hand, they will perceive that the product is of low quality if it cannot meet their expectations (Yuyun Sumarlinah, Sukesi, Sugiyanto, 2022). To create a quality product the supply chain management should run as effectively and efficiently as possible.**

East Java's economy is supported by three main sectors, namely the Manufacturing Industry sector (23.68 percent), the Trade Sector (21.11 percent), and the Agriculture Sector (12.18 percent). The three sectors contributed 56.97 percent to East Java's PDRB, while the rest came from contributions from 14 other economic sectors. a. East Java province has far excelled in terms of economic competitiveness for two decades (Mustaghfirin, 2018). The results of this data are also supported by the economic competitive index of 33 provinces made by Asia Competitiveness Institute (ACI) shows, the province of East Java consistently ranks second under DKI Jakarta, which shows that the province of East Java is very competitive down to the district and city levels.

The fluctuating development of manufacturing companies in East Java can be seen from the results of exports abroad according to the report from the Central Statistics Agency in "Exports by province of origin of goods in 2020 which comes from various data both PEB documents (Export Notification of Goods), PT POS Documents, Agency Data Another, Survey of Transboundary Sea Trade. In 2018 it was 19,057.7 (US$ Million) and in 2019 it dropped to 18,683.4 (US$ Million) and in 2020 it rose again to 20,904.9 (US$ Million). This shows that the performance of manufacturing companies in East Java province is still not stable.

Company performance in terms of cost efficiency plays a very important role in winning the competition in the global economic era. Many things can affect the company's performance, both from internal and external parties. Theory Resource-based view (RBV) states that the competitiveness of companies is determined by internal resources that are characterized as rare, valuable, inimitable and irreplaceable. This study focuses on the ability to innovate and carry out business processes well, which are two internal resources to achieve cost efficiency performance. Innovation has received the attention of researchers as a trigger for company performance in a dynamic business environment. Innovation is seen as very relevant to increasing market demand and functioning as an engine of economic growth in the global economy era.

According to Yongki (2015), in an effort to gain a competitive advantage, one of which can be done by focusing on reducing the cost of producing an item to the lowest cost point but still

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being able to meet customer needs, which can be done by implementing supply chain management within the company. Supply chain management or supply chain Management is a very important part of a company. In this context, every company manager must be able to plan, implement, control, the supply chain management process.

Successful manufacturing companies implement a strategy of working with suppliers and customers to know exactly the level of their needs. It is in this case that the benefits of SCM are enormous (Seggie et al., 2006). However, SCM implementation is not an easy job. Technology usee-business Through the use of the internet, the process of transferring data or information is expected to be carried out more quickly and accurately from different locations around the world (Lightfoot & Harris, 2003; Motiwalla et al., 2005). Owned data can also be collaborated with other data and can also be shared with suppliers and customers (Attaran & Attaran, 2007) and become more efficient and effective (Ahmed et al., 1996). According to Anatan & Ellitan (2018), Supply chain management practices used include: (1) Supplier strategic partnership management, (2) Relationships with consumers, (3) Level and quality information sharing, and (4) internal supply chain processes. Research conducted by Benzidia et al. (2021), de Vass et al Benzidia et al. (2021), de Vass et al. (2021), Jayakrishnan et al. (2020), Liu et al. (2021), Riyadi (2020) supports the existence of a significant influence between Supply Chain Management Practice to Information Technology.

Supply Chain Management It can also be interpreted as an organizational network involving upstream and downstream relationships. downstream), and generate value in the form of goods/services in the hands of the final customer (Kusumo, 2006). Penelitian yang dilakukan oleh Maalouf (2018), Khalil et al. (2019), Shieh (2012), Siagian et al. (2021) shows that there is a significant effect between Supply Chain Management Practice to Innovation.

Supply Chain Management It can also be interpreted as an organizational network involving upstream and downstream relationships. downstream), and generate value in the form of goods/services in the hands of the final customer (Rahmasari, 2011). Stevens in Adha (2017) research, classifies supply chain integration into three levels, namely functional integration, internal integration and external integration. Internal integration is defined as an interfunctional process of interaction, collaboration, coordination, communication and cooperation that brings functional areas together into a cohesive organization. In addition, supply chain partners who regularly exchange information can be companies that are in supply chain in essence satisfying consumers by working together to make products that are cheap, deliver on time and with good quality. Supply chain which is integrated will increase the overall value generated by supply chain them. Companies that are in the supply chain in essence satisfy consumers by working together to make products that are cheap, deliver on time and with good quality (Rahmasari, 2011). Research conducted by Nursyamsiah & Syah (2019), Khalil et al. (2019), Jamaludin (2021), Siagian et al. (2021), Liu et al. (2021), Sundram et al. (2020), Qi et al. (2017) showed that there was a significant effect between Supply Chain Management Practices to Business Performance.

According to Frohlich & Westbrook (2001) indicators are used to measure Supply Chain Integration includes: (1) access to the planning system, (2) joint process planning, (3) access

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to EDI (Electronic Data Interchange) together, (4) Knowledge of Inventory Mix Level, (5) Packaging Customization, (6) Frequency Delivery, (7) Use of logistics tools (Logistic Equipment), and Third Party Distribution Roles (Third-Party Logistic). Research conducted by Tiwari (2021), de Vass et al. (2021), Jayakrishnan et al. (2020), Liu et al. (2021), Hove-Sibanda & Pooe (2018); Siagian et al. (2021); Leksono et al. (2020) shows that Supply Chain Integration significant effect on Information Technology.

Supply chain management is carried out with an integrated and process-oriented approach to the design, management and control of the supply chain, with the aim of producing value for the end customer will improve customer service and lower costs (Pavico, L., 2017). The positive impact is a sure guarantee for companies implementing supply chain management practices, especially when new, better products, processes and systems are developed as a strategy to meet fluctuating market demands (Hult et al., 2007). Supply chains that seek to increase innovation need the ability to adopt and apply innovation in all lines of the supply chain to form an effective and efficient management system in order to optimize company performance, especially production quality (Storer et al, 2014). Research conducted by Faik et al (2017), Siagian et al (2021), Siagian (2021) supports a significant influence between Supply Chain Integration to Innovation.

According to Simchi-Levi (2003), supply chain integration is the synergy of a series of components of companies and partners, such as warehouses, suppliers, distributors, factories, and various other business units to create distribution dynamics as a measure of production cost efficiency and customer satisfaction. Supply chain integration encourages companies and other supply chain members to cooperate in managing production, determining delivery schedules, forecast markets, pricing, promotions, sales distribution, and marketing information with other supply chain members and simultaneously considering measures, integrated policies , as well as sharing information as an effort to increase distribution flexibility, quality assurance, and product flexibility (Storer et al., 2014). Research conducted by Nursyamsiah & Syah (2019), Siagian et al. (2021), Chiang & Huang (2021), Liu et al. (2021), Djunaedi (2019), Sundram et al. (2020), Qi et al. (2017) supports the existence of a significant influence between Supply Chain Management Integration to Business Performance

This decision-making process is based on information. In the process of making good decisions, the role of models and information is very important. Even in recent technological developments, the decision-making process already uses information technology (OF). The indicators used to measure IT capabilities consist of 4 indicators which are those adopted Chen et al. (2018) including: (1) IT Business Alignment, (2) IT infrastructure flexibility, (3) IT Integration, (4) IT Decision Making, and (5) IT Planning. Information systems and technology are also relied on to increase the effectiveness and efficiency of existing business processes in the organization, so that they become superior business processes (best practice), and are also able to facilitate managers in decision making and collaboration between departments (Eria et al., 2014). Research conducted by Benzidia et al. (2021), de Vass et al. (2021), Jayakrishnan et al. (2020), Liu et al. (2021) supports the existence of a significant effect between Information Technology to Business Performance.

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Innovation is conventionally interpreted as a breakthrough related to a new product. Innovation is a broader concept that describes the implementation of new ideas, products or processes. Innovation is also a mechanism for companies to adapt in a dynamic environment, therefore companies are required to be able to create new thoughts, new ideas and offer innovative products and improve services that satisfy customers (Kusumo, 2006). Innovation success occurs if the product is accepted and generates profits for the company. Meanwhile, the innovation process can be seen when a series of adoptions from something that already exists is then differentiated so that new things are created whose values and benefits are felt more. Innovation will be measured using 4 indicators adopted from Martinez et al. (2017) namely: , (1) Product innovation, (2) Process innovation, (3) Research and Development (R&D) and (4)product launching. Thus, innovation can be used as a source of a company's competitive advantage and can improve company performance. Research conducted by Ayoub et al. (2017), Khalil et al. (2019), Siagian et al. (2021) shows that there is a significant effect between Innovation to Business Performance.

Research Gap underlying in this research, among others, about the influence Supply Chain Integration towards Information Technology, Innovation and Business Performance. Research conducted by Yu et al. (2021); Munir et al. (2020); Tarigan et al. (2021) stated Supply Chain Integration influence business performance, but research conducted by Piprani et al. (2021), Lu (2017) found that the relationship between SCI and SCP is not linear. Furthermore, companies with a strong focus benefit more from SCI than weak ones (Zhu et al., 2018). Supply Chain Integration affects the use/development of IT (Riyadi, 2020). External integration has an impact on the quality of information, while internal integration has no effect (Tarigan et al., 2021). Supply Chain Integration influencing the development of innovation levels (Abudaqa et al., 2020; Ayoub et al., 2017) Integration Buyer-supplier does not moderate the relationship between strategy and innovation performance (Jajja et al., 2018). Internal integration alone cannot directly explain product innovation capabilities but external integration can do so indirectly (Freije et al., 2022).

Research Gap The two that underlie this research include differences of opinion on the influence between Supply Chain Management Practices terhadap Information Technology, Innovation dan Business Performance. Supply Chain Practice influence Business performance (Riyadi, 2020; Basheer et al., 2019; Hove-Sibanda & Pooe, 2018; Siagian et al. 2021; Alahmad, 2021; Leksono et al., 2020) SCQM practices do not have a direct effect on operational performance (Hong et al., 2019). Supply Chain Practice affect use and development Information Technology (Hove-Sibanda & Pooe, 2018; Siagian et al. 2021; Leksono et al., 2020). Supply Chain Practice affects the level of innovation (Hove-Sibanda & Pooe, 2018) however SCQM Practice indirectly has a positive effect on innovation performance (Hong et al., 2019). IT influences Business Performance (Riyadi, 2020; Yu et al., 2021; Şahin & Topal, 2019; Basheer et al., 2019). ERP sustainability has no direct effect on business performance (Siagian et al., 2021). IT affects Innovation (Adamides & Karacapilidis, 2020; Naidoo & Hoque, 2018; Mikalef et al., 2019). Different patterns of contextual factors were found, the significance of various big data resources, with specific combinations leading to the level of innovation ability (Mikalef et al., 2019). Innovation influences Business Performance (H. Liu

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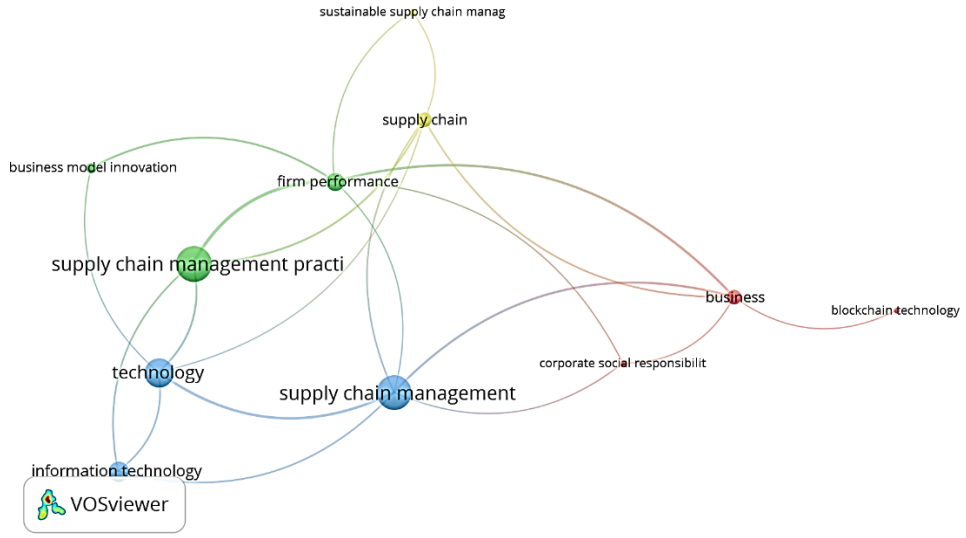
et al., 2016; Zimmermann et al., 2020; Iranmanesh et al., 2019; Hong et al., 2019) The process of planning and controlling does not affect product innovation (Tarigan et al., 2021).

The novelty of this study is based on search results via Publish or Perish, , where a search is made of the title of the article by subject business performance, information technology, innovation dan supply chain management which is indexed on Scopus which is then analyzed with VOSviewer.

Figure 1: Visualization of the Research Co-Word Map Network



Source: Pengolahan VOSViewer (2022)

The results of this visualization are grouped into 4 clusters, where cluster 1 is supply chain management practice shown in green has 3 topics, cluster 2 namely supply chain management shown in blue has 3 topics, cluster 3 namely supply chain shown in yellow has 2 topics and cluster 4 namely business shown in red has 3 topics. We can pay attention supply chain management practice can relate to information technology, innovation and business performance, but the magnitude of the relationship is still considered not large, so that in this study it is hoped to develop research that is based on the research of Storer et al. (2014) by adding indicators Supply Chain Management Practice which includes: Technical capabilities, coordination capabilities, and capabilities control.

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Implementation Supply Chain Management (SCM) is not an easy job. Technology usee-business Through the use of the internet, it is hoped that the process of transferring data or information can be carried out more quickly and accurately from different locations around the world (Lightfoot and Harris, 2013; Motiwalla et al., 2015). Owned data can also be

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collaborated with other data and data can also be shared with suppliers and customers (Attaran and Attaran, 2007) and become more efficient and effective (Ahmed et al., 1996). Research conducted by Benzidia et al (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020) supports a significant effect betweenSupply Chain Management Practices toInformation Technology. Innovation is conventionally interpreted as a breakthrough related to a new product. Innovation is a broader concept that describes the implementation of new ideas, products or processes. Innovation is also a mechanism for companies to adapt in a dynamic environment, therefore companies are required to be able to create new thoughts, new ideas and offer innovative products and improve services that satisfy customers (Kusumo, 2006). Research conducted by Maalouf G. 2018, Khalila et al (2018), Chich-Jen Shieh (2020), Siagian (2021) shows that there is a significant effect betweenSupply Chain Management Practices to innovation.

According to Heizer and Render (2014), supply chain management is integrated activity procurement of materials and services, conversion into semi-finished goods and final products, and delivery to customers through the distribution system. The real impact of the benefits or implementation of supply chain management practices is that the circulation of information, goods, and finance is increasingly smooth, or has short lead times, so that the efficiency of raw materials and inventory management is more effective and the company's performance increases significantly.

Supply chain management is carried out with an integrated and process-oriented approach to the design, management and control of the supply chain, with the aim of generating value for the end customer, with good increase customer service and lower costs (Pavico, L., 2017). The positive impact is a sure guarantee for companies implementing SCM practices, especially when new or better products, processes and systems are developed as a strategic effort to meet fluctuating market demands (Hult et al., 2007). Supply chains that seek to improve the results of innovation need to have the ability to adopt and implement innovations in all lines of the supply chain to form an effective and efficient management system in order to optimize company performance, especially production quality (Storer et al., 2014). Research conducted by Nursyamsiah and Shah. (2019), **Riyadi, Slamet. (2020),** Khalila et al (2018), Jamaludin (2021), Siagian (2021), Liu et al (2020), Sundram (2018), Qi (2017) support a significant influence betweenSupply Chain Management Practices to Business Performance

Based on these findings, the following hypotheses were proposed:

H1: Supply Chain Management Practices significant effect on Information Tehcnology in manufacturing companies in East Java

H2: Supply Chain Manajemen Practise significant effect on innovation pada perusahaan manufacturing in East Java...

H3: Supply Chain Management Practices significant effect on Bussiness Performance in manufacturing companies in East Java.

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Supply chain integration focuses on the relationship between suppliers, customers, and the company itself, which must be managed properly. For this supplier take responsibility for product quality, good and long-term relationships with suppliers and customers, and so that product distribution from upstream to downstream is timely to the end user (Lisda, 2011). Competitors make companies use information technology to penetrate markets to business competitors by way of product or service differentiation. Information technology is intended for companies that monitor competitor activities, information technology can also function as additional information for companies about good things that have never been done by companies to increase their competitiveness in the market. Research conducted by Tiwari, Saurabh (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020), Djunaedi (2021) shows that Supply Chain Integration berpengaruh signifikan terhadap Information Tehcnology.

Supply Chain Management can also be interpreted as an organizational network that involves upstream and downstream relationships, and produces value in the form of goods/services in the hands of the ultimate customer/end user. (Lisda, 2011). Stevens in Wahyu's research (2017) classifies supply chain integration into three levels, from functional integration, internal integration and external integration. Internal integration is defined as an interfunctional process of interaction, collaboration, coordination, communication and cooperation that brings functional areas together into a cohesive organization. In addition, supply chain partners who regularly exchange information can be companies that are in the supply chain in essence satisfying consumers by working together to make products that are cheap, deliver on time and with good quality. Supply chain integrated approach will increase the overall value generated by the supply chain. Companies that are in the supply chain in essence satisfy consumers by working together to make products that are cheap, deliver on time and with good quality. (Lisda, 2011). Research conducted by Faik et al (2017), Siagian et al (2021), Siagian (2021) shows that there is a significant effect between Supply Chain Integration towards innovations. According to David Simchi-Levi (2003), supply chain integration synergizes a series of components of companies and partners, such as warehouses, suppliers, distributors, factories and various other business units to create distribution dynamics as a measure of production cost efficiency and customer satisfaction. Supply chain integration encourages companies and other supply chain members to cooperate in managing production, determining delivery schedules, forecast markets, pricing, promotions, sales distribution, and marketing information with other supply chain members and simultaneously considering measures, integrated policies , as well as sharing information as an effort to increase distribution flexibility, quality assurance, and product flexibility (Storer, et.al., 2014). Research conducted by Nursyamsiah and Shah. 2019, Siagian et al (2021), Chiang and Huang (2021), Liu (2021), Siagian (2021), Liu et al (2020), Djunaedi (2020), Sundram (2018), Qi (2017) support the influence of significant between Supply Chain Managemen Integration to Bussiness Performance.

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Therefore, the hypothesis proposed is as follows:

H4: Supply Chain Integration significant effect on Information Technology Technology in manufacturing companies in East Java.

H5: Supply Chain Integration significant effect on innovation manufacturing companies in East Java.

H6: Supply Chain Integration significant effect on Business Performance in manufacturing companies in East Java

In the view of modern economics, innovation is considered as one of the important factors for possible organizational survival, growth, and competitiveness (Kmieciak, Michna, and Meczynska 2020). In addition, it is emphasized that in the long run, innovation is the only effective way to be competitive (Kmieciak, Michna, and Meczynska 2020). Kmieciak, Michna, and Meczynska (2020) conducted research to determine two business goals. The first is how to increase and sustain innovation. The second is how innovation relates to the performance of financial and non-financial firms.

Achieving competitive advantage and improving company performance are cited as the two main reasons for companies to innovate. According to this researcher, empirical research is divided on the positive relationship between innovation and IT. Information technology has been shown to positively influence innovation through increased communication, information and knowledge sharing, inter-organizational exchanges and organizational learning processes, concepts underlying innovation (Kmieciak, Michna, and Meczynska 2020).

Through the use of IT, customer feedback can be solicited, with the data serving as input into innovation processes, resulting in better or new products or services (Kmieciak, Michna, and Meczynska 2020). Innovation does require an initial investment in tangible and intangible assets and the returns on this investment may take time to realize (Kmieciak, Michna, and Meczynska 2020). Therefore, it is very important to create a climate that encourages continuous innovation, especially in the use of information technology. So the next hypothesis is taken, namely: This decision-making process is based on information. In the process of making good decisions, the role of models and information is very important. Even in recent technological developments the decision-making process already uses information technology (information technology). Information systems and technology are also relied on to increase the effectiveness and efficiency of existing business processes in the organization, so that they become superior business processes (best practice), and are also able to facilitate managers in making decisions and collaboration between departments (Putra, 2013).

In contrast to traditional supply chain management which only focuses on handling economic performance by ignoring environmental and social performance, remanufacturing, green manufacturing, logistics reserves, and so on are needed to overcome this., (Riyadi, Nugroho and Arif, 2021).

Research conducted by Benzidia et al (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020), Riyadi, Slamet (2020) supports the existence of a significant influence between

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Information Tehcnology and Bussiness Performance. Innovation is conventionally interpreted as a breakthrough related to a new product. Innovation is a broader concept that describes the implementation of new ideas, products or processes. Innovation is also a mechanism for companies to adapt in a dynamic environment, therefore companies are required to be able to create new thoughts, new ideas and offer innovative products and improve services that satisfy customers (Kusumo, 2006).

Innovation and customer orientation are key factors in improving business performance. Innovation success occurs if the product is accepted and generates profits for the company (Panjaitan, Sumiati, Andjarwati, Panjaitan, 2019). Meanwhile, the innovation process can be seen when a series of adoptions from something that already exists is then differentiated so that new things are created whose values and benefits are felt more. Thus, innovation can be used as a source of a company's competitive advantage and can improve company performance.

Research conducted by Faik et al (2017), Khalila et al (2018), Siagian et al (2021), Siagian (2021), Phatirana and Hui (2017) showed that there was a significant effect between innovation to Bussiness Performance. So the next hypothesis is taken, namely:

Based on these findings, the following hypotheses were proposed:

H7: Information Technology significant effect on the level Innovation in manufacturing companies in East Java.

H8: Information Tehcnology significant effect on Business Performance in manufacturing companies in East Java.

H9: Innovation berpengaruh significant effect on Bussiness Performance in manufacturing companies in East Java.

RESEARCH METHODS

This study uses a survey research design for top management who is responsible for the operations of manufacturing companies in East Java Province, Indonesia, where a total of 1,231 companies are based on processed data from the East Java Industry and Trade Office in 2021 which are classified according to the criteria and groupings adjusted to KBLI.

From the 1231 populations obtained, a sample will be taken from each company population that has criteria where the sample is a member of top management which includes CEOs, director logistic, director of purchasing, director of manufacturing, general manager, supply chain manager, operations manager, logistic manager, or other positions within the company that are directly related to the company's strategic decisions regarding supply chain policies. The results of the Slovin formula show that the sample used in the study is 93 respondents. The sampling technique in this study uses the technique probability sampling by applying proportionate stratified random sampling (Sugiyono, 2016). His data analysis technique in this study uses Partial Least Square (PLS).

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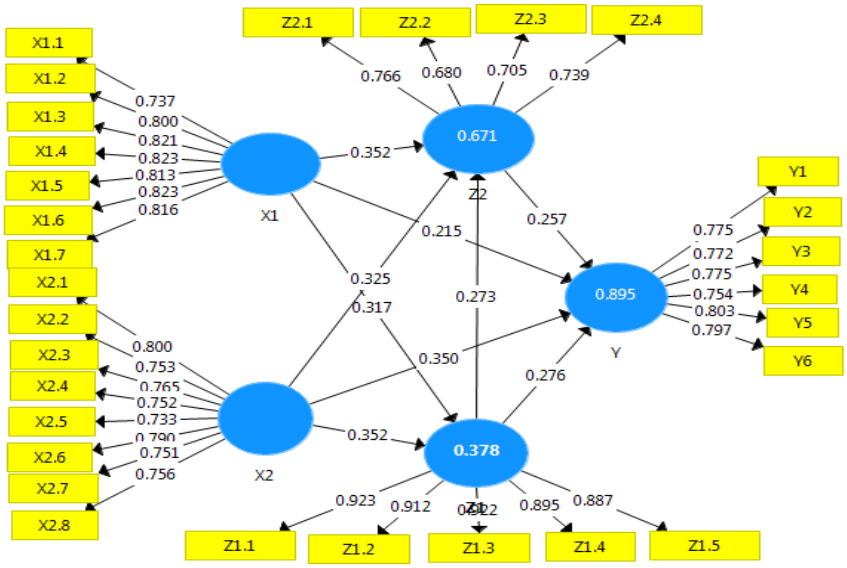
RESEARCH RESULTS AND DISCUSSION

Hypothesis testing is carried out based on the results of testing the Inner Model (structural model) which is generated from the estimate for path coefficient or parameter coefficient and t-statistics. To see whether a hypothesis can be accepted or rejected by considering the significance value between constructs, t-statistics, and p-values. Testing the research hypothesis was carried out with the help of SmartPLS (Partial Least Square) 3.0 software. These values can be seen from the bootstrapping results. The rules of thumb used in this study are the t-statistic >1.96 with a significance level of p-value 0.05 (5%) and the beta coefficient is positive. The value of testing the hypothesis of this study can be shown in the table and for the results of this research model can be described as shown in Figure

Figure 2: Results of the Research Model



Tabel Path Coefficients

Variabel	Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
X1 -> Y	0,215	0,222	0,037	5,874	0,000
X1 -> Z1	0,317	0,308	0,108	2,934	0,004
X1 -> Z2	0,352	0,356	0,099	3,556	0,001
X2 -> Y	0,350	0,354	0,072	4,838	0,000
X2 -> Z1	0,352	0,356	0,079	4,467	0,000
X2 -> Z2	0,325	0,322	0,113	2,866	0,005
Z1 -> Y	0,276	0,271	0,060	4,579	0,000
Z1 -> Z2	0,273	0,274	0,064	4,269	0,000
Z2 -> Y	0,257	0,252	0,064	3,999	0,000

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DISCUSSION

Supply Chain Management Practices terhadap Information Technology

The research results show Supply Chain Management Practices significant effect on Information Technology. So that the hypothesis states Supply Chain Management Practices significant effect on Information Technology in a manufacturing company in East Java proved the truth. The results of the study also show a positive influence which empirically explains the better the application Supply Chain Management Practices which is done by entrepreneurs will increase their role Information Technology, and vice versa the less application Supply Chain Management Practices carried out by employers, the implementation will decrease Information Technology.

The results of this study directly support research conducted by Benzidia et al (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020) which support a significant effect between Supply Chain Management Practices to Information Technology. The indicators contained in the variable Supply Chain Management Practices get a good perception of the respondents. The indicator that gets the highest average score is Relationship with consumers, while the indicators are on variables Supply Chain Management Practices the lowest perceived is the ability to control. This shows the power of forming variables Supply Chain Management Practices the closeness of the relationship with consumers, with this closeness the company will be better able to find out what product specifications the consumers want.

The results of this study also support the theory Resource Based View (RBV) where in one of the developments in RBV theory is the entry Knowledge Management (KM) as one of the variables Resource Based View where define knowledge management is a strategy for getting the right knowledge to the right people at the right time and helping people share and put information into action in ways that will improve organizational performance. Knowledge Management can be thought of as a process of deliberate design, equipment, structure, with the intention of enhancing, updating, sharing or enhancing the use of knowledge represented in one of the three elements (structural, human, and social) of intellectual capital. Brand identity and social capital are non-economic resources that can help to compete in an increasingly competitive environment. RBV states that to provide a competitive advantage, a company's resources must have value, be unique, and cannot be replaced.

Implementation of supply chain management cannot be separated from development Information Technology (IT). In fact, when viewed from its history, this IT progress goes hand in hand with the basic principles of supply chain management (supply chain management). This happens because the integration of various processes and business entities in supply chain management is carried out jointly on the information owned and generated by various parties in a supply chain system.

Supply Chain Management Practices to innovation

The research results showSupply Chain Management Practices significant effect onInnovation. So the hypothesis which states Supply Chain Management Practice Significant effect on

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innovation in manufacturing companies in East Java proved the truth. The results of the study also show a positive influence which empirically explains the better the application Supply Chain Management Practices carried out by entrepreneurs will further increase innovation, and vice versa the weaker implementation Supply Chain Management Practices carried out by entrepreneurs will further reduce innovation. The results of this study support research conducted by Maalouf G. 2018, Khalila et al (2018), Chich-Jen Shieh (2020), Siagian (2021) show that there is a significant influence between Supply Chain Management Practices to innovation

The results of this study support the RBV theory where the RBV is a potential model to unite studies to enrich and strengthen the theory of corporate strategy. Corporate strategic analysis is a key feature of strategic management. In strategic management, there has been a shift from focusing on company products to focusing on internal factors in terms of resources and capabilities. Where the company's RBV is a collection of resources that must be continuously developed so that the company has unique characteristics. The RBV concept especially in Knowledge Management encourages individuals to communicate their knowledge by creating environments and systems to organize, and share knowledge across the enterprise where this will continue to fuel innovation. Knowledge Management itself has two main objectives, namely to make the organization act as intelligently as possible to secure overall survival and success, and to realize the best value from knowledge assets.

Innovation is conventionally interpreted as a breakthrough related to a new product. Innovation is a broader concept that describes the implementation of new ideas, products or processes. Innovation is also a mechanism for companies to adapt in a dynamic environment, therefore companies are required to be able to create new thoughts, new ideas and offer innovative products and improve services that satisfy customers.

Application Supply Chain Management Practices will force innovation which will directly make entrepreneurs expand their knowledge of operations management and how to determine the lowest cost that can be obtained from the strategic decisions taken. In preparing a model related to Resource Based View, attention must be paid to the basic concept which states that the key to the success of resources lies in competitive advantage where the value of complex interrelationships between the company's human resources and other resources, physical, financial, legal, and other factors.

Supply Chain Management Practices to Business Performance

The research results show Supply Chain Management Practices significant effect on Business Performance. So that the hypothesis states Supply Chain Management Practices significant effect on Business Performance in a manufacturing company in East Java proved the truth. The results of the study also show a positive effect which empirically explains the better the application Supply Chain Management Practices carried out by entrepreneurs will further improve their business performance and vice versa the weaker the implementation Supply Chain Management Practices carried out by entrepreneurs will further reduce business performance. The results of this study support the research conducted by Nursyamsiah and

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Shah. 2019, Khalila et al (2018), Jamaludin (2021), Siagian (2021), Liu et al (2020), Sundram (2018), Qi (2017) which supports a significant influence between Supply Chain Management Practices and Business Performance.

The indicators contained in the variable Business Performance get a good perception of the respondents. The indicator that gets the highest average score is an increase in customer satisfaction, while the indicator on the variable Business Performance what is perceived the lowest is product quality improvement. This shows that customer satisfaction really needs to be maintained to determine company performance.

The results of this study were able to confirm the use of the RBV theory in this study. The RBV model believes that core competencies are the basis of competitive advantage for companies/organizations, the key to strategic advantage, and the ability to gain above average profits. In the RBV concept, what is the focus of attention is the problem of internal resources. The success of an organization is determined by internal resources which are grouped into 3 (three) categories, namely (1) Physical resources, including all factories, equipment, locations, technology, and raw materials (2) Human resources, including all employees, including training , experience, intelligence, knowledge, skills and abilities possessed, (3) Organizational resources, including company structures, planning processes, information systems, patents, trademarks, copyrights, databases and so on. For companies that implement RBV, they must be able to manage these internal resources, through various strategies that make them able to compete for a long time.

Supply chain management is integrated activity procurement of materials and services, conversion into semi-finished goods and final products, and delivery to customers through the distribution system. The real impact of the benefits or implementation of supply chain management practices is that the circulation of information, goods, and finance is increasingly smooth, or has short lead times, so that the efficiency of raw materials and inventory management is more effective and the company's performance increases significantly. Supply Chain Management Practices is the level of strategic cooperation between manufacturers and their supply chain partners and jointly managing processes within and between organizations to achieve effective and efficient products and services, information, financing, and decision-making processes, thereby maximizing the value provided to customers.

Supply Chain Integration to Information Technology

The research results show Supply Chain Management Integration has a significant effect on Information Technology. So that the hypothesis states Supply Chain Integration has a significant effect on Information Technology in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application Supply Chain Management Integration done by employers will further increase Information Technology and vice versa the weaker the application Supply Chain Management integration done by employers will further decrease Information Technology his. The results of this study support research conducted by Tiwari, Saurabh (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020), Djunaedi (2021) which

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supports a significant influence between Supply Chain Management Integration to Information Technology.

The indicators contained in the variable Supply Chain Integration get a good perception of the respondents. The indicator that gets the highest average value is Packaging Customization, while the indicator is on Supply Chain Integration the lowest perceived is the role of third party distribution. This shows that in the supply chain management integration process, packaging demand is a factor that greatly influences the supply chain integration process.

The results of this study can confirm the theory Resource-Based View where companies will be more superior in business competition and get good performance by owning, controlling, and utilizing important strategic assets (tangible and intangible assets). Supply chain integration focuses on the relationship between suppliers, customers, and the company itself, which must be managed properly. For this supplier take responsibility for product quality, good and long-term relationships with suppliers and customers, as well as for product distribution from upstream to downstream in a timely manner to end users. Competitors make companies use information technology to penetrate markets to business competitors by way of product or service differentiation. Information technology is intended for companies that monitor competitor activities, information technology can also function as additional information for companies about good things that have never been done by companies to increase their competitiveness in the market. Research conducted shows that Supply Chain Integration has a significant effect on Information Technology.

Supply Chain Integration terhadap innovation

The research results show Supply Chain Integration has a significant effect on innovation. So the hypothesis states Supply Chain Integration has a significant effect on innovation in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application Supply Chain Management Integration done by employers will further increase innovation and vice versa the weaker the application Supply Chain Management integration done by employers will further decrease innovation. The results of this study support research conducted by Faik et al (2017), Siagian et al (2021), Siagian (2021) which supports a significant influence between Supply Chain Management Integration to Innovation.

The results of this study are able to confirm the RBV theory where the company is a collection of resources that must continue to be developed so that the company has unique characteristics. Development of innovation in a company's competitive strategy is very important to gain competitive advantage to improve company performance.

The basic premise that distinguishes an industrial organization from strategic management is the assumption of heterogeneous companies. The advantage of this strategy is the development of models where heterogeneity Firms are endogenous creations of economic actors. Supply Chain Management integration can also be interpreted as an organizational network that involves upstream and downstream relationships, and produces value in the form of goods/services in the hands of the ultimate customer/end user. Supply chain integration in

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essence satisfies consumers by working together to make products that are cheap, deliver on time and with good quality. Supply chain integrated approach will increase the overall value generated by the supply chain. Companies that are in the supply chain in essence satisfy consumers by working together to make products that are cheap, deliver on time and with good quality.

Interconnection Supply Chain Management Integration with innovation will generate important competencies for organizations working in a knowledge-based economy. So that in order to win the current competition, companies no longer only focus on how good a product is and how good a company is, but also leads to competition between business networks such as supply chains. This competition must be able to create an effective and integrated supply chain management in order to create innovative companies.

Implementing company Supply Chain Management Practices, especially when new or better products, processes and systems are developed as a strategy to meet fluctuating market demands. Supply chains that seek to increase innovation results need to have the ability to adopt and implement innovations in all lines of the supply chain to form an effective and efficient management system in order to optimize company performance, especially production quality.

Supply Chain Integration to Business Performance

The research results show Supply Chain Integration has a significant effect on Business Performance. So that the hypothesis states Supply Chain Integration has a significant effect on Business Performance in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application Supply Chain Management Integration done by employers will further increase Business Performance and vice versa the weaker the application Supply Chain Management integration done by employers will further decrease Business Performance. The results of this study support the research conducted by Nursyamsiah and Shah. 2019, Siagian et al (2021), Chiang and Huang (2021), Liu (2021), Siagian (2021), Liu et al (2020), Djunaedi (2020), Sundram (2018), Qi (2017) which supports the existence significant effect between Supply Chain Management Integration to Business Performance.

The results of this study are able to confirm the theory of Resource Based View, especially with regard to strengths and weaknesses, by identifying what the company's strengths and capabilities are and avoiding its weaknesses for competitive advantage. Supply Chain Management Integration is expected to provide an overview of the characteristics of the resource approach that can contribute to strategic management practices and improve the capabilities and competencies of companies to improve company performance through the utilization of resources both physical and non-physical.

The overall discussion of Resource Based Theory, it can be viewed from three perspectives: First, an overview based on the concept of strategic management which includes competitive advantage as the basis of a Resource Based View, including theories related to returns and performance in the field of strategy. Both approaches Resource Based View in the economic

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organization that is related to positive agency theory, property right, transaction cost economic and evolutionary economic. Third, Approach Resource Based Value which is oriented towards industrial organization analysis.

Supply chain integration synergizes to create a series of components of companies and partners, such as warehouses, suppliers, distributors, factories and various other business units to create distribution dynamics as a measure of production cost efficiency and customer satisfaction. Supply chain integration encourages companies and other supply chain members to cooperate in managing production, determining delivery schedules, forecast markets, pricing, promotions, sales distribution, and marketing information with other supply chain members and simultaneously considering measures, integrated policies , as well as sharing information as an effort to increase distribution flexibility, quality assurance, and product flexibility.

Information Technology significant effect on Innovation

The research results show Information Technology has a significant effect on Innovation. So that hypothesis states Information Technology's significant effect on the level Innovation in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application Information Technology done by employers will further increase Innovation and vice versa the weaker the application Information Technology done by employers will further decrease Innovation. The results of this study support research conducted by Kmieciak, Michna, and Meczynska (2012) which supports a significant influence between Information Technology to Innovation.

The indicators contained in the variable Information Technology get a good perception of the respondents. The indicator that gets the highest average score is IT planning, while the indicators are on variables Information Technology what is perceived the lowest is the flexibility of IT infrastructure. This shows that IT planning will determine success in choosing Information Technology that fits within the company.

The results of the study were able to confirm the use of the RBV theory where according to the RBV approach, a company is a set of strategic and productive resources that are unique, rare, complex, complementary and difficult for competitors to imitate which can be used as elements to maintain its competitive strategy. A company's competitive advantage must be based on specific resources that become a barrier to imitation activities and threats from substitute products or company services. Increasing competitive pressures can reduce a company's competitive advantage. This indicates that for a company, in order to survive in the midst of increasingly fierce competitive pressures, the company must take actions that can maintain and strengthen its unique competencies. Company resources and competencies can be placed on a continuum to see that they are durable and cannot be imitated

Innovation does require an initial investment in tangible and intangible assets and the returns on this investment may take time to be realized. Therefore, it is very important to create a climate that encourages continuous innovation, especially in the use of information technology.

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Information Technology significant effect on Business Performance.

The research results show Information Technology significant effect on Business Performance. So that the hypothesis states Influential Information Technology significant to Business Performance in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application Information Technology done by employers will further increase Business Performance and vice versa the weaker the application Information Technology done by employers will further decrease Business Performance. This research supports research conducted by Benzidia et al (2021), Vass et al (2020), Jayakrishnan et al (2020), Liu et al (2020) support that there is a significant effect between Information Technology to Business Performance.

The decision-making process in strategic management is based on information. In the process of making good decisions, the role of models and information is very important. Even in recent technological developments the decision-making process already uses information technology (information technology). Information systems and technology are also relied on to increase the effectiveness and efficiency of existing business processes in the organization, so that they become superior business processes (best practice), and are also able to facilitate managers in making decisions and collaboration between departments (Putra, 2013).

Influential innovation significant to Business Performance

The research results show Innovation significant effect on Business Performance. So that the hypothesis states Innovation significant effect on Business Performance in a manufacturing company in East Java proved the truth. The results of the study also show that there is a positive effect explaining empirically the better the application innovation done by employers will further increase Business Performance and vice versa the weaker the application innovation done by employers will further decrease Business Performance. This study supports research conducted by Faik et al (2017), Khalila et al (2018), Siagian et al (2021), Siagian (2021), Phatirana and Hui (2017) supporting a significant influence between innovation to Business Performance.

The indicators contained in the variables innovation get a good perception of the respondents. The indicators that get the highest average score are Research and Development, while the indicators are on variable innovation the lowest perceived is Launching. In increasing research and development innovation is the strongest factor and finding new things, so this is very necessary in innovation. New products will be created through various research and development.

This research confirms the theory Resource Based Value of competitive advantage which can be analyzed in context evolutionary. The company's competency advantage can be defined as a set of rules that are routinely used by top management. This advantage will emerge when the company makes innovations in its strategic management decisions. Strategic management decisions in the past in decision making are the basic things that will affect the company. The RBV approach is also aligned with other theories within the economic organization paradigm with which the RBV theory relates property rights. Since Property right is described as a

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valuable resource, property right be more precise. In the end the RBV theory deals with transaction cost because the combination of resources will be affected by transaction cost. Valuable resources are difficult to imitate and substitute, enabling firms to earn and retain rents. Innovation will create sustainability of rents which are barriers to imitation.

The success or failure of an organization is highly dependent on resource factors. The competitive advantage of an organization is the strength of a company that is strongly supported by good resources within the framework of a natural resource management system, strategic, integrated, interconnected and united. Competition is at the heart of the success or failure of a company. Competition requires the accuracy of the activities of a company such as innovation and a good work culture.

CONCLUSION

The results of this study have implications for the development of economics, especially in the field of strategic management related to aspects of business performance, especially implementation supply chain management, Genre Supply Chain Management Practices, the development of innovation, demands for the use of IT on the business performance of a company. The results of this study also further strengthen the theory Resource-Based View (RBV) states that the competitiveness of companies is determined by internal resources that are characterized as rare, valuable, inimitable and irreplaceable.

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