

THE IMPACT OF ORGANIZATION COMMITMENT TO PROCESS AND PRODUCT INNOVATION IN IMPROVING OPERATIONAL PERFORMANCE

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ABSTRACT

This study aims at examining the impact of the organization commitment on on operational performance through the planning and control process process innovation, and product innovation. The questionnaires were distributed to 90 respondents composed of 84 respondents representing 42 shoe firms, and 6 respondents representing the experts from the industry association. Data analysis used the partial least square (PLS) technique with smart PLS software. The result reveals that the organization commitment affects the planning and controlling process, process innovation. The planning and controlling process influence the process innovation. The planning and control process does not affect the product innovation. The process innovation influences product innovation. Process innovation and the product innovation affect the operational performance. This work contributes to the current research in the supply chain management, and the shoe firm may adopt this finding in enhancing the operational performance of the firm.

Keywords: Organization commitment; Planning and controlling process, Process innovation; Product innovation; Operational performance; Indonesia.

1. INTRODUCTION

One of the ways to increase a country's competitiveness is to encourage the innovation in company's industrial level. The innovation will create something new to compete. Innovation is a creative and interactive process, which involves market and non-market institution. This system consists of partnership, interaction relationship, and production process. In addition, it is a learning process. Innovation is a culture of the organization, which reflects the openness to the new idea. On the other hand, an ability to innovate is an ability to adapt or transform new ideas into a new product or process. Hartini (2012) suggested that innovation is a research, development and/or engineering activity to develop practical application of values and contexts to new knowledge. Moreover, it is a new practical way to apply existed knowledge and technology to a product or a production process (Soekarnoputri, 2002). Innovation is a complex and dynamic process (and sometimes appears to be sporadic) which shows some paradox. Although innovation is encouraged by the competition, it will not develop without partnership (co-operation), and sometimes the partnership can be between the companies, which are in competition. Innovation does not merely depend on how the company, university and the policy maker work, but it is how they collaborate. Innovation is a social learning process. The innovator and adopter need this process, whether it is a technical issue or the other essential things. It needs active interaction for the success of

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innovation. The small and medium companies that do the innovation will change the process to make a better product, which will increase the company's performance.

A change process in a company, at first, will be an examination of its business process. The business process is some activities to transform inputs into outputs. A business process is the central part of the organization to reach its purpose. They represent a serial of activities that when combined, it will make value for the customer, internally or externally. The focus of this business process aims to the technical changing of the organization, for example, continuous improvement and business process re-engineering (Tarafdar & Gordon, 2007). Li et al., (2007) stated that process innovation needed to develop new products and reduce the production cost of a product, which is able to give the competitive advantage of a company in the market. In developing the innovation, a company is enabled to innovate by enhancing the quality and offering competitive price. This is supported by Walker et al., (2011) that states product innovation and innovative process have a significant positive influence on the company's performance. Koellinger (2008) added that the innovative company is growing faster than the passive one.

Small and Medium Enterprises (SMEs) become the mainstay of Indonesia's economy because it contributes significantly to the high economic growth and become the strength of manufacturing industry. One of the advantages of SMEs is its efficiency and flexibility since it has a relatively few employees with production process using manual and semi-automatic system. Hence, SME's product has a superior product quality compared to larger companies. SME companies in Indonesia are experiencing sustained rapid growth as reported by the central bureau of statistics. Table 1 below indicated the growth number of the SMEs from year to year.

Table 1: The Number of Small and Medium Enterprises

Scale of enterprises	Years					
	2010	2011	2012	2013	2014	2015
Small	2,529,847	2,554,787	2,812,747	2,887,015	3,220,563	3,385,851
Medium	202,877	424,284	405,296	531,351	284,501	283,022
Total SMEs	2,732,724	2,979,071	3,218,043	3,418,366	3,505,064	3,668,873
Growth		246,347	238,972	200,323	86,698	250,507

Source: bank Indonesia (2017).

According to the Yudhoyono (2008), SMEs are classified into three levels based on the turnover and assets owned by the firm. First, a microenterprise is classified as owning the assets up to a maximum of Rp. 50,000,000 and turnover up to Rp. 300,000,000. Second, a small enterprise with an asset value from Rp.50,000,000 up to Rp. 500,000,000 and with a value turnover from Rp. 300,000,000 up to Rp. 2,500,000,000. Third, a large enterprise with the value of turnover from Rp. 2,500,000,000 up to Rp. 50,000,000,000, and with the value of asset ranging from Rp. 500,000,000 up to Rp. 10,000,000,000

The high growth of the number of SMEs has, consequently, increased the volume of the businesses dramatically and also resulted in high economic growth as well. The number of workers absorbed by the SMEs sector reaches 107 million from the total workforce of 110 million. This number means that SMEs absorbed around 97.27% of the total National workforce. The total number of unit business registered as SMEs have covered up to around 99,9% of the total number of business

unit existing in Indonesia (Tambunan, 2012). In the case of East Java province, the report indicated the annual economic growth of 5.16%, which is higher than Indonesia's economic growth of 4.93%. The total number of SMEs in East Java in 2015 amounted to 820,844 or accounted for 22.37% of the total number of Indonesian SMEs. One of the famous SME in the East Java province is located in the District of Sidoarjo. These SME are engaged in the footwear industry such as shoes and sandal.

However, in today, the constraint facing the SME is the managerial issue such as the organizational structure of the SME. Most of the organizational activities, such as planning, production control, receipt of order and purchasing of material are directly executed and controlled by the owner. There is no systematic planning, and most activities are decided spontaneously. The production process is also often changed, for instance, original delivery destination suddenly changed to the new destination without an apparent reason. This means that delivery speed and reliability is not acceptable in the point of view of the customer. Other related issues are the production process which is often interrupted due to the sudden stoppage of the electricity supply. Product innovation is rarely done by the company unless there is a new demand for specific design and process from the customer. The variants of the product tend to be similar to other SME product which results in fiercer competition among SMEs. The quality of products produced by SMEs tends to differ from time to time because it is highly dependent on employee motivation. Changes in SMEs governance began since the Indonesian government paid attention to the development of local products. This atmosphere creates a strong motivation for owners and employees of SMEs to work harder in full time and even exceed the standard working hours of eight hours a day in the pursuit of higher productivity, more efficient, and more competitive. Based on the above description, this study examines the impact organization commitment on the operational performance through the planning and control process, process innovation, and product innovation. The novelty of this research is the relationship of the five constructs, i.e., organization commitment, planning and controlling process, process innovation, and product innovation, and operational performance simultaneously. The managerial implication of this study is to provide the manager an insight how to enhance the operational performance from the perspective of supply chain management.

2. LITERATURE REVIEW

2.1. *Product Innovation*

Product Innovation is an introduction of a new product to the markets (Najib & Kiminami, 2011; Hartini, 2012). Product innovation is an act to create a new product suite to what market needs. (Walker et al., 2011). According to White & Bruton (2007), product innovation is a changing of the product, which is preceded by a research process and development in a company. Product innovation is the introduction and development of new types of goods or services that complement the deficiencies of the prior product with more emphasis on quality (Atalay et al., 2013). According to the Soekarnoputri (2002) Innovation is a research, development and/or engineering activity that aims at developing new value. In the scientific contexts, innovation is new ways to transform existing science and technology into products or process of production. In the context of the government, innovation policy can be found at various levels such as industry or trade offices, provincial level, and international level under the ministry of industry. According to Lukas & Farel (2000), product innovation can be divided into three basic categories; they are "product line

extensions, meet products, and new to the world product.” Product line extension is relatively new in the market, but it is not a new thing for the company. Meet with the product is relatively new for the company, but the product is already known in the market. New to the world product is a new product both for the company and market (Hartini, 2012). Product innovation can be measured by three indicators. They are developing a new product (Hartini, 2012; Li et al., 2007), increasing the quality of product and accelerate the introduction of a new product to the market (Yang, 2010; Tung, 2012). Neira et al., (2008) and Aydin et al., (2007) add that design in product innovation has an important role, because it will be easier to produce and to reduce defected products.

2.2. *Process Innovation*

Processes in the manufacturing sector cover from the process of material input, supporting materials, packaging materials, semi-finished product, and finished product ready to be delivered to customers. Process innovation illustrates a change in how an organization is producing a product and service (Hartini, 2012). The process innovation is an act to introduce a new production process or a new daily activity (Najib & Kiminami, 2011). The process innovation is a new production method by adopting new technology in the entire process of value chain including manufacturing, data processing and distribution (Ismail & Mamat, 2012). Process innovation in SME is a social process, which substantially involves the interaction between parties. Relationship, networks and social closeness are generally stronger at the local content. Such a situation is indeed very important for the development of the social relationship including the mutual trust, communication and interaction, and open culture of new thinking (Soekarnoputri, 2002). Ciptono (2006) said that process innovation is changing the way they produce and shipping the products. Process innovation leads the company to a new method in its operation by buying new technology or upgrading what they have. This helps the company to reach economy of scope or scale which helps them to increase the quality. Process innovation will enhance the efficiency of the production process, and therefore, the cost will decrease. Customer complaint and return cost, for example, will decrease. Therefore, the upgrading needs to be done continuously. This upgrading process can be measured in three ways, i.e., the constant upgrading in the production process, the research data allocation, and the frequency of training in production related field (Hartini, 2012).

2.3. *Organization Commitment*

Organization commitment is a condition where an employee stands on a specific organization with a purpose and desire to maintain the membership in the organization. Organization commitment, according to Chen (2006), illustrates how an employee feels owning the company. In other words, it is how the employee is satisfied with the work explicitly given, and the organization gives the same response to all the employees. Weng et al., (2010) describes that organizational commitment as a psychological condition which characterizes the relationship of the employee with the organization or the implication affects whether the employee will keep the job or not. Organization commitment assesses the extent to which the organization has a commitment, which is measured by three indicators, i.e., affective commitment, continuity commitment, and normative commitment.

2.4. *Planning and Control Process*

Planning and control process is a process of planning and controlling the production in term of volume and schedule. The plan objective is to determine the materials required for the production. The planning goal is to achieve an efficient production process in term of the use of materials, employees and cycle time for a unit of product (Chapman, 2006). The planning process based on technical data in the field to estimate the materials, workers and time in finishing the product. This planning should be controlled in the operational division of the company where the plan is managed and realized (Jacobs et al., 2009). The control objective is to make sure that there are some improvements in the process. Production control needed to manage the utilization of the materials, control workers, and control cost production, and control finishing of the product.

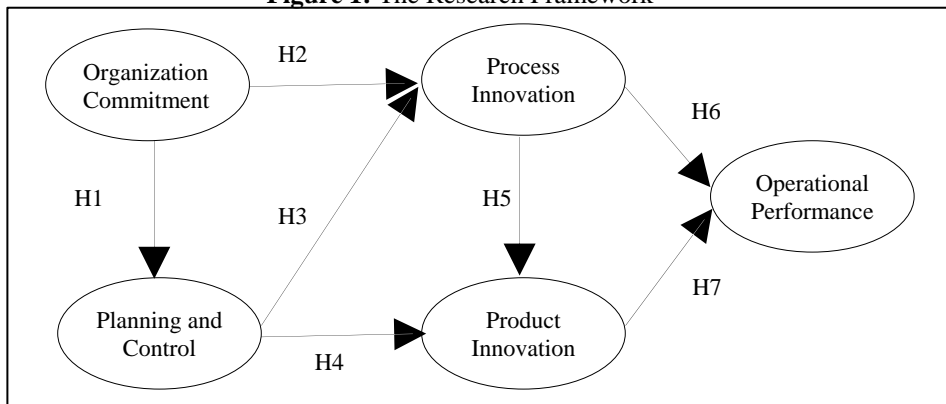
2.5. *Operational Performance*

Operational performance is an achievement by a business organization indicated by the result of the operation (Hartini, 2012). Operational performance is a way used by the company to measure its performance using financial benefits and non-financial/operational benefit (Ya'kob & Jusoh, 2016; Ramakrishnan et al., 2015; Rasula et al., 2012). Operational performance can be measured through two aspects; financial performance and market performance. Financial performance is related to the company performance which linked to profitability such as sales, profit, and profit margin. Market performance is related to the performance in the market measured by market share, profit ratio and customer satisfaction (Salim & Sulaiman, 2011). Operational performance can be measured by performance according to Chae et al., (2014), namely, order fulfillment, delivery speed, delivery flexibility, and flexibility to change volume.

2.6. **Research Framework**

Innovation is closely related to company performance. Some facts support this statement. The research of Tung (2012) states that performance depends on product innovation. This innovation will get broader market and increasing company's competitiveness.

Figure 1: The Research Framework



Koellinger (2008) in his research adds that a company that innovates is faster in term of development compared to the one does not. Darroch (2005) and Neira, et al., (2008) think differently. They think the theory cannot be applied to the small to medium company especially furniture company. The cost of innovation is high, and it tends to be imitated. The company's performance is determined by product innovation and process innovation which are un-separated from the commitment of all components in a company which is called organization commitment. Figure 1 shows the research framework which indicate the relationship of each construct. Based on the relationship, seven hypotheses are proposed as follows:

- H1.** Organization commitment affects the planning and control process.
- H2.** Organization commitment influence the process innovation.
- H3.** Planning and control process influence the process innovation.
- H4.** Planning and control process affects the product innovation.
- H5.** Process innovation influences product innovation.
- H6.** Process innovation affects operational performance.
- H7.** Product innovation influences operational performance.

3. METHODOLOGY

This study examines the seven hypotheses by testing the relationship between construct using the quantitative approach with survey method. The survey was conducted on the small and medium of shoes and sandals industry located in the center of small and medium enterprises in Wedoro Waru Sub district, with a population of 151 business units. However, not all of these companies have been registered to the Industry and Trade Office of Sidoarjo (district capital). Researcher directly observes all business units in the area to make sure that the enterprise eligible for the population with four criterias. First, the existing business units having their own production process area, machines and uses shoe production schedule amounting to 63 small medium enterprises. Second, the small and medium enterprises have constant order demand from their customers. From 63 firms, 6 enterprises are engaged as subcontracted then these small and medium enterprises are excluded from the 63 firms and left 57 in total. Third, the small and medium enterprises already have product designs that indicate product innovation and have at least 10 items of finished products. There are 12 enterprises have not fulfilled this criterion and hence. There is 45 small and medium enterprises eligible to the population of this study. Fourth, all business units registered at the Sidoarjo industry and Trade Office at the Sidoarjo regency. Off the 45 enterprises, 42 are eligible for the population of this study.

This research is using the population from small and medium shoe companies listed in the Department of Industry and Commerce in Sidoarjo District, which has 42 business units. This research conducts some surveys to small and medium shoe companies (Cooper & Schindler, 2008). The data retrieval techniques are snowball sampling. The analysis is testing the seven hypotheses using Partial Least Square (PLS) with the calculation process using PLS Smart Software. The main reason employing this method is the layering of relation structure between variables, and the PLS Smart Software is suitable for this research (Ghozali, 2014).

4. FINDING

As discussed above, the population of the study consists of 42 companies located in the region of Sidoarjo city. Two respondents represent each company for the reason to eliminate the bias response from each respondent. In addition, 6 respondents from the industry related experts, were requested to complete the questionnaires. Hence, there are 90 respondents in total. The two respondents from each company consist of one from the business owners and another one from the employees who understood the product design and production process. Data collection is done by coming across the owner and the employee to be interviewed and fill out the questionnaire. In filling questionnaires, researchers help fill in the data of respondents on each questionnaire and then guide respondents to fill out the questionnaires that researchers have prepared. The selection of the respondents also considered the education level as it reflects the awareness of the respondents about the importance of training. Research shows that the higher the level of education the higher their level of awareness of the importance of training. Respondents who have elementary and junior high school education are relatively only following necessary skills training such as production, machine use, and quality standards.

4.1. Convergent Validity

The assessment of convergent validity is by comparing the value of average variance extracted (AVE) of every construct with a recommended acceptable value of 0.5. Table 2 indicates that the value of AVE greater than 0.5 and this means that all indicators of each construct are valid.

Table 2: The Result of Average Variance Extracted in PLS Output

Variable	AVE (Average Variance Extracted)
Organization Commitment	0.5449
Planning and Control Process	0.5251
Product Innovation	0.5457
Process Innovation	0.5127
Operational Performance	0.5345

4.2. Composite Reliability

The acceptable limit value for the composite reliability is 0.7. Table 3 demonstrated that composite reliability is higher than 0.7, which means that the block indicators of the five construct are reliable.

Table 3: The Result of Composite Reliability in PLS Output

Variable	Composite Reliability
Organization Commitment	0.7269
Planning and Control Process	0.7686
Product Innovation	0.7565
Process Innovation	0.8001
Operational Performance	0.7667

4.3. The Result of Hypothesis Testing

The next step of the analysis is to examine the structural model as demonstrated in Figure 2. Figure 2 demonstrated the result of inner model output from Partial Least Square (PLS). The result of the analysis as also shown in Table 3 indicated that organization commitment influences the process innovation, which is proved by the path coefficient of 0.298 and the T-Statistic of 1.96. This can be explained that management's commitment, which gives responsibility and power to all the employees, so the continuous improvement, is taking place in the production process. This result is consistent with the research by Rodríguez et al., (2008), stated that the organization commitment to management commitment and employee commitment contributes to the improvement of the process.

Figure 2: The Research Framework

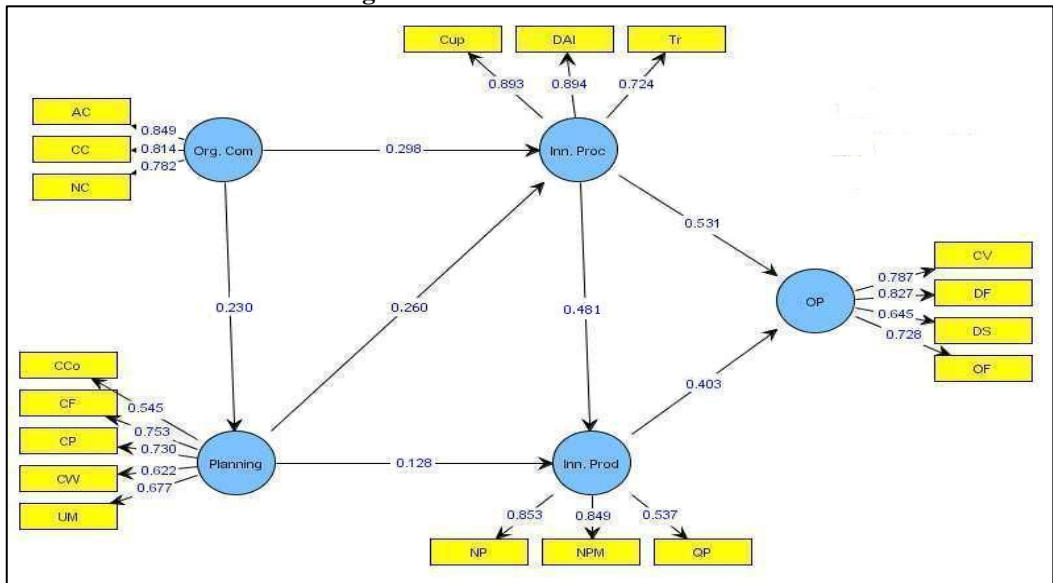


Table 3: The Result of Composite Reliability in PLS Output

Effect Variabel to anothers Variabel	The Original Sample Estimate	Mean Of Subsamples	Standard Deviation	T-Statistic
Org. Com -> Proc.Inn (γ_1)	0.298	0.298	0.058	2.111
Org. Com ->Planning (γ_2)	0.230	0.132	0.061	2.110
Planning ->Proc. Inn (β_1)	0.260	0.264	0.078	2.164
Inn. Proc. ->Prod.Inn (β_3)	0.481	0.415	0.059	6.237
Planning ->Prod.Inn (β_2)	0.128	0.089	0.105	1.224
Proc.Inn -> OP (β_4)	0.531	0.524	0.085	6.224
Prod.Inn -> OP (β_5)	0.403	0.393	0.103	4.362

This is indicated by the t-value of 2.110 greater than 1.96. This result confirms that organizational commitment is able to increase planning and controlling process in a company. The management gives task, responsibility, and transparent procedure to the company where the material planning, controlling and scheduling is employed. This is supported by the research of Ng et al., (2006) who states that the organization commitment gives positive impact to work schedule flexibility in the Southeastern United States retails.

Table 3 also shows the finding that planning and controlling process influence process innovation with the path coefficient of 0.260 and T-Statistic about 2.164 (higher than 1.96). This condition affects process innovation significantly. It describes that the planning of proper material usage will give the accurate time of production as the standardized time the company sets. Tarafdar & Gordon (2007) state that the planning and controlling process on the administration as a process innovation especially in setting rules, procedures, new policies and organization's responsibility changing. There is no impact on planning and controlling process of the small and medium company to product innovation. Table 3 measures 0.128 and the T-Statistic is 1.224 (less than 1.96). Product innovation and is not affected by the material planning and controlling. This is different from DeLuca & Atuahene-Gima (2007) research which underline that the process of a company in understanding the market knowledge and its integration with the mechanism of planning and collaboration between departments impact the product innovation.

Process innovation has the influence on product innovation with the path coefficient of 0.481 and T-Statistic 6.237 (above 1.96). There is a definite influence of process innovation on product innovation. The machines usage and new tools will increase the product quality of the company. On the other hand, the new machines and tools will help the company to create a new innovative product. The continuous training for the employees also plays a significant role. This confirms Maqsood & Finegan (2009) who states that the process innovation to adopt technology within an organization increases the capacity for the product innovation. The research of Li et al., (2007) has the same statement. This research proves that process innovation positively influences operational performance with the coefficient of 0.531 and the T-Statistic is 6.244. By using a new machine, the company can reduce some burdening costs, i.e., excessive employees and fail products. The cost cutting makes the company reducing their product's price. If the price is reduced, it can compete in the market and increase the sales and market share. Besides, the net income and profit margin are also increased by the lower price. Walker et al., (2011) reveals that the process innovation has a positive impact on organizational performance. The company that applies innovative process is quicker in fulfilling the order.

The result of this research reveals the significant impact of the product innovation to an operational performance demonstrated by the coefficient of 0.403 and the T-Statistic is 4.362 (above 1.96). The product innovation done by the small and medium business improved their competitiveness, and they are capable of exporting their products. They make new products by following market need. They produce what is trending following what the big companies produce. This makes them less innovative to compete with big companies. This research supports the results of a study by Utaminingsih (2016) which stated that the innovation of rattan products conducted on small-scale rattan handicraft business in Teluk Wetan Jepara village has an impact on marketing performance. This research also supports the research results by Pertiwi and Siswoyo (2016) which stated that the market orientation as the beginning of product innovation conducted SMEs to the marketing performance of fruit chips Batu City. Its organizational performance is not significantly useful

because they can fulfill and deliver the order quickly. This research confirms the research of Jackson et al. (2016) which states that the quality of management innovation in producing innovation product and the process will give an excellent operational performance for a company.

5. CONCLUSION

Based on the analysis of the data and study, it can be drawn some results. Strong organizational commitment to the company provides an excellent process innovation due to the rules and procedures established, and the authority and responsibility have been settled well. Owners and employees of SMEs have begun to implement quality control systems and ongoing training from the government. Adherences to procedures that have been implemented lately provide proper process planning and control on SMEs so as to provide process innovation, especially in controlling the use of raw materials and completion of finished products. Planning and good process control at the company is not able to provide product innovation due to planning and control of the company to process innovation in ensuring an excellent process to produce product innovation. Innovations undertaken by SMEs on process innovation provide enhanced product innovation and are jointly capable of enhancing operational performance.

Small and medium-sized shoes in Sidoarjo city are still less innovative in product innovation and still depend on large companies. SMEs need to improve their product innovation performance in order to be able to compete with large shoe companies. SMEs can also penetrate the market segment not yet entered by large shoe companies, especially the segment of local products. Owners or managers of SMEs shoes should do better market orientation enabling the enterprise to create appropriate product innovation. The owners and managers of SMEs need to promote innovation to create a unique product based on the customer interest in the pursuit of better marketing performance. In the next research is expected to examine the relationship of variables of product innovation, market orientation to competitive advantage.

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