Demand Chain Management: An Effort to Improve Competitiveness and Business Performance

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Abstract: *This study aims to analyzethedemand chain management relate tocompetitiveness and business performance ofsmall business in Probolinggo, East Java, Indonesia. The research population are 96 small refined fish processing small business.Sensus technique was adopted to determine reasearh sample. This is because the number of small business are only 96 units. Thats why, researcher adopt the sampling technique. So, the sample size is 96 small business.The study used primary data which was collected by quesioner. Previously, the quesioner was of course tested its reablity and validity. Further, it was distributed to the respondents directly. A week after, reseacher collected the quesioners, then edited and tabulated. Primary data was analyzed by structural quation model (SEM). The result demonstrated that there are linkage among demand chain management, competitiveness and busines performance. It means, demand chain management becomes an effort to improve competitiveness as well as business performance.*

Keywords: Demand Chain Management, Competitiveness, Performance

1. Introduction

The dynamics of economy uncertainty recently, the small business may find their best momentum. That's due to the product is quite unique and interesting, because it is done with the concept of handmade. However, of course it has to go through various innovations that culminate in the increasing quality and product variants produced. Schumpeter (1883-1950), argues that in times of crisis is the best momentum of innovation. When everything is difficult, it demands the spirit to break the deadlock of the system through innovative and creative (creative destruction) ways. The goal in order to build competitiveness as well as business performance.

Based on the results of previous researchn such as conducted by Madhani (2014), implementation of demand chain management has many benefits and one of them affect the business performance dramatically. Other benefits, it can improve the competitiveness of small business. The next research, Juttner, Christopher & Baker (2015) also revealed that demand chain management as one component of key performance indicators that dominantly effect on business competitiveness. Also, Skibniewski & Ghosh (2014) explained that the implementation of demand chain management has huge impact on competitiveness while improving the performance of small businesses.

Further, from the survey results revealed that the perpetrators of small and medium industry in Probolinggo city is relatively large number. Based on the information skundair there are 385 units of IKM and 96 units of which are engaged in processed products of marine products (Department of Cooperatives, Energy Minerals, Industry and Commerce Probolinggo City, 2015). While the average number of workers in each small business amounted to 5-45 people, including business owners. Of course the aspect of employment can be considered quite good, amid the difficulty of getting employment opportunities.

However, small business are faced with many problems. Growth continues to slow as the implications of low

competitiveness due to the lack of a touch of modern management so that management is far from efficient and quality that does not change quickly. Coupled with the increasingly widespread business of similar large-scale product variants with more and more interesting. Of course this reality becomes a serious threat that can interfere with its continuity, as well as its contribution to the regional economy, both on the aspect of employment to the possibility of increasing the number of poverty.

Therefore, the development of this sector becomes extremely necessary. Moreover Probolinggo city that started pioneering as a tourist destination city, so it is certainly a potential market for the perpetrators of the small business. Moreover, in early 2016 it entered the era of ASEAN Economic Community, which certainly has implications for the increasing market share of SME players. But keep in mind, the increased market opportunities will surely be followed increasing competition climate. So, the effort must be done is to improve its competitiveness with the implementation of model of demand chain management on the IKM processed seafood in the city of Probolinggo, so it can grow and develop.

2. Literature Review

Demand Chain Management
Madhani (2015) stated that demand chain is defined as a network of business processes and activities that help entities understand, manage, and ultimately create consumer demand. The demand chain starts with the customer, working backwards through the entire chain, with suppliers from suppliers. Managing the demand chain is fundamentally different from managing the supply chain. It is because it requires turning the supply chain on it, and taking the consumer as a starting point, is not the ultimate goal. The supply chain emphasizes efficiency in production and logistics processes, while the demand chain emphasizes effectiveness in the shipping and business processes as a whole. An efficient supply chain alone provides only half the solution, then, a complete solution is recommended to

have an effective demand chain that encourages a strategic approach to market response.

Providing customer service in the value chain is largely the domain of the two functional areas-marketing and SCM. The integration of collaboration between marketing and the functions of an enterprise's SCM needs to fully utilize potential service improvements. Supply chains capable of implementing and implementing integrated and coordinated marketing strategies at the supply chain level and focused on the end customers of the supply chain, will gain a competitive advantage (Min and Mentzer, 2013). Thus, it is important to understand the marketing perspective and not solely focus on SCM decisions. Keep in mind, marketing and SCM often operate as self-optimizing, independent entities.

One important strategy issue that needs further research is the integration of marketing and SCM activities. Generally, marketing seeks to optimize demand, whereas, SCM seeks to optimize supply; Marketing is revenue focused, and involves identifying and responding to customer needs, whereas, SCM is a focused cost, and supply with production and distribution. Marketing combined with dynamic SCM provides greater flexibility to meet customer demand based on need. An entity can not achieve its full potential in terms of developing or delivering products and services without the use of marketing insights to shape and improve SCM. For example, unnecessary quarterly variability in product deliveries in the market led to sluggish sales for most of the quarter followed by the end of quarterly spikes or fast sales for most of the quarter followed by slack sales by the end of the quarter. This phenomenon is caused by a marketing strategy that is aligned with SCM (Sloan et al., 2012). It is difficult to execute marketing strategies that meet the unique needs of customers - cost, quality, variety, delivery, and service - if the underlying support capabilities of SCM can not deliver. Effective marketing strategy demands SCM sound because it includes the distribution part of the marketing strategy. In an environment with increasing diversity of customer needs and requirements, companies must quickly adjust their supply to meet demand.

If the supply chain focuses on the supply of materials, while the demand chain focuses on market demand. Traditional supply chain processes focus on efficiency to maintain lower costs, while traditional demand chain processes focus on effectiveness and revenue generation with a view to satisfying customers. The strength of the demand chain unrelated to the strength of the supply chain can lead to a high cost base, as well as slow and inefficient product shipments; While the strength of the supply chain unrelated to the strength of the demand chain may result in sub-optimal results (Jüttner et al., 2015). The demand chain consists of all process requests necessary to understand, create, and stimulate customer demand and manage in demand chain management (DCM). The goal of DCM is to define, understand and demands customers in real time, achieving flexibility followed by rapid response to the entire chain. The demand creation process consists of all the activities necessary to create demand and is closely linked to marketing, while the demand fulfillment process consists of

all the activities required to meet demand and is closely linked to SCM.

Therefore, DCM can leverage the power of marketing (selling) and SCM (deliver) and meet the customer value creation challenges in today's marketplace. This means that the DCM framework can be built based on two interrelated parts: marketing and SCM, with the customer as an integral part as shown in Figure 2.1. Interestingly, Miles & Snow's (2013) research reveals that demand chain management has an impact on performance and competitiveness. This opinion is also supported by research results Veerendrakumar, Narasalagi, & Shivashankar, K., (2015), which found that demand chain management has an effect on the competitiveness of small business in India.

Figure 1: The Demand Chain Management
Source: Madhani, 2015

Competitiveness

Competitiveness basically grows from the value or benefits created to buyers that are more than the cost to create it. This value or benefit is paid by the buyer, and the superior value comes from offering a lower price than the competitor's price for equivalent benefits or offering a unique benefit that exceeds the offered price (Muratovic, 2013). Competitiveness is also a benefit strategy of companies that cooperate to compete more effectively in the market place. Goldsmith (2013) states there are two footholds in reaching competing keungulan namely resource advantages and position advantage. Atkitson (2012) describes competitiveness as a unique organizational position against its competitors. Competitiveness can be obtained largely from resources and capital. The resources in question are the strengths and weaknesses of marketing performance, while capital is defined as the ability of companies in managing the resources they have to work together like work teams within a department. In other words, the high level of marketing performance will affect the high competitiveness of the company. Competitiveness can be created with the correct knowledge of the variables that affect it and its concrete example with demand chain management.

Business Performance

The modern business environment is characterized by the increasing importance and strength of customers, employees

and society at large. Thus, to achieve optimal business performance needs to pay attention to the reality. Performance is a concept widely used in many business organizations. Typically, performance is a measure of how well the mechanisms / processes to achieve corporate objectives, Moultrie (2016) defines corporate performance as how well organized organizations and benefits are provided to customers and other stakeholders. In some studies revealed, related performance to achieve the desire of shareholders / interests of investors. Neely (2014) further outlines the dimensions of performance measures, using five key dimensions that must be assessed including quality, delivery speed, delivery reliability, pricing (cost), and flexibility. By measuring all these factors, performance will be balanced.

In general, performance measurement functions can be categorized into the following four aspects (Neely 2014): Position (1) Checking. Status formation and monitoring of current progress over time and against benchmarks. (2) Communicate position. Communicate with shareholders, customers, or employees by releasing annual reports, etc. (3) Confirm priorities. Performance data provides insight into what's important for business, thus exposing deficiencies that allow organizations to identify priorities. (4) Require progress. Steps can help the organization focus on specific issues and encourage them to seek ways to improve performance.

Theoretical Framework

Based on several literature studies, the model framework in the study of "Improving Competitiveness and Business Performance through Implementation of Model of Demand Chain Management on IKM Processed Sea Products in Probolinggo City" as follows:
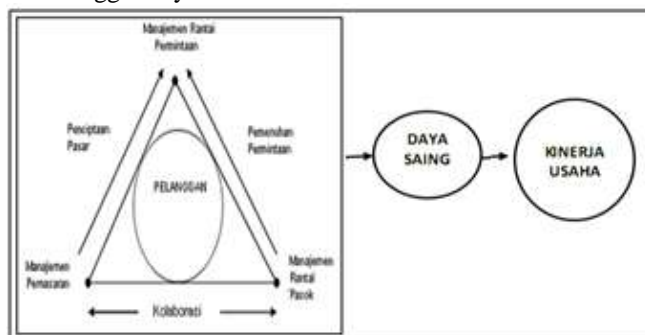

Figure 2: Theoretical Framwork

So, the hypoteses of this research are (1) demand chain management effect significantly to competitiveness, (2) demand chain management effect significantly to business performance and (3) competitiveness effect significantly effect significantly to business performance.

3. Methodology

The study was carried out in Probolinggo. It is located in East Java, Indonesia. This study employed the survey research design and the proportional random sampling procedure. Definition of operational research variables are (a) Demand chain management model is a network model of business processes and activities that help entities understand, manage, and ultimately create consumer demand. The indicators are understanding the market, managing markets, creating markets, fulfilling requests, quick response, supplier collaboration, focusing on efficiency and focus of effectiveness; (b) Competitiveness defined as unique organizational positions against competitors using indicators of position advantage, cost leadership and differentiation and (c) Business performance is how well the business entity is managed and how large the customers and stakeholders benefit from their business activities. The indicators use checking position, communicating position, confirm priorities and compel progress.

Target Population
A target population is the specific group that a particular study is interested in researching on. The population of this study are 96 small refined fish processing busines in Probolinggo, East Java, Indonesia.

Sample Procedure and Sample Size
Census technique was adopted. This is because the number of small business are only 96 uni. Thats why, researcher adopt the census sampling technique. So, the sample size is 96 small business in Probolinggo, Indonesia.

Data Colection
The study used primary data which was collected by quesioner. Previously, the quesioner was of course tested the reablity and validity. Further, it was distributes to the respondents directly. A week after, reseacher collceted the quesioners, then edited and tabulated.

Data Analysis
Primary Data was analyzedby Structural Squation Model (SEM). The aims is to know so far the effect of demand chain management, competitiveness and small business performace.

4. Result and Discussion

As seen at figure 3, based on the structural equation model analysis found that research instrument valid and realiabel as well. This is due to all loading factors are more than 0.40 and realibility coeficient are more that 0.60. It means, the research intrument can be used in the study. Further, demand chain management effect competitiveness by coeficient 0.70 and also affect business performance by coeficient 0.44. Further, competitiveness effect business perfomance by coeficient 0.67. It means, there are lingkage among the research variabel. This research findings are of course usefull for small business especially in order to improve competitiveness as well as business performance.
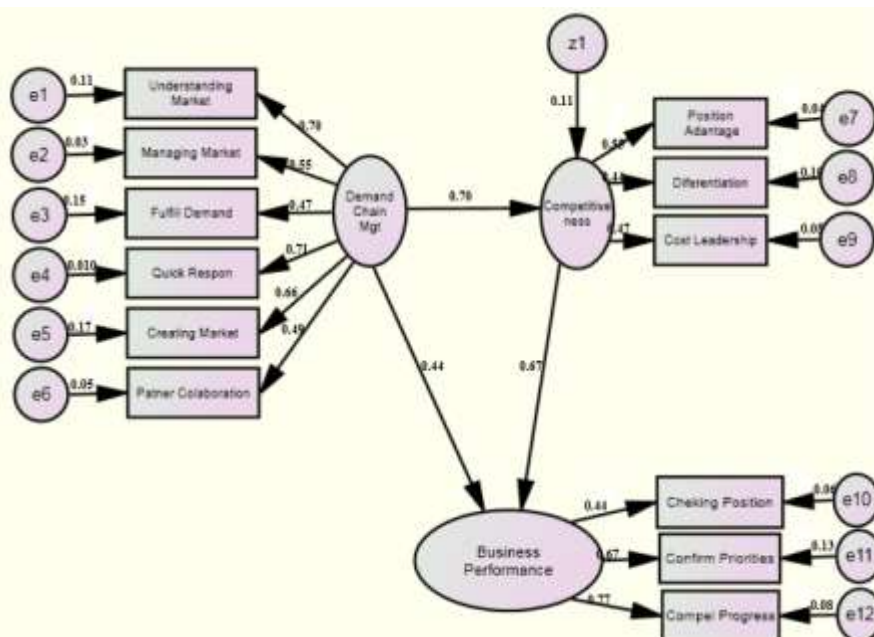
Figure 3: Linkage Among Demand Chain, Competitiveness and Business Performance.
Source: Primary Data, 2017

Moreover, hypothesis testing is used to test some research hypotheses as previously formulated. Hypothesis testing is based on data processing research using structural equation model analysis, by analyzing the regression value as shown in the previous table. Hypothesis testing is done by analyzing criticacal ratio (CR) value and probability (P) value on result by Regresion Weights Full Model data, compared to the required statistical limit, ie the value must be greater than 2.00 for CR value and below 0.05 for P value. The data indicates the value that qualifies, then the research hypothesis will be discussed gradually in accordance with the hypothesis proposed in this study. The following table 6 describes the estimation of regression weights parameter which is the result of primary data.

Tabel 1: Estimation of Parameter Regression Weights

	Estimate	S.E	C.R.	P
Competitiveness<--- Demand Chain Management	0.70	0.175	4.00	0.000
Business Performance <--- Demand Chain Management	0.44	0.162	2.71	0.004
Business Performance<--- Competitiveness	0.67	0.189	3.54	0.001

Source: Primary Data, 2017

As seen at table 1, demand chain management effect significantly to competitiveness. This is due to the critical ratio (CR) value 4.00 or more than 2.00, and value of P (probability) is 0.000 or less than 0.05. It means, the first hypotesis is accepted. Further, demand chain management effect significantly to business performance. This is shown by the value of critical ratio (CR) is 2.71 or more than 2.00 and the value of P (probability) is 0.004 or less than 0.05. It means that the second hypotesis is accepted. Also, competitiveness effect significantly to business performance. This is due to the value of critical ratio (CR) is 3.54 or more than 2.00, and the value of P (probability) is 0.004 or less than 0.05. It means, the third hypotesis is also accepted. So, it can be stated that all hypoteses are accepted.

This research findings support the results of research conducted by Madhani (2014) that implementation of model of demand chain management has many benefits and one of them affect the performance dramatically. Other benefits can improve the competitiveness of small industries. It also supports Juttner, Christopher & Baker (2015) research which revealed that demand chain management as one of the components of KPIs has a dominant effect on business competitiveness. In fact, supporting Skibniewski & Ghosh (2014) explains that the implementation of demand chain management has an impact on competitiveness as well as small business performance.

4. Conclusion

Based on the research result and discussion, it can be concluded that demand chain management effect to competitiveness as well as business performace. Besides, competitiveness also effect to the business performance. Therefore, this research findings are of course usefull for the owner of small business in order improve the business performance. It means, demand chain management can be applied to improve competitivenss as well as buisness performance. For other researcher, this findings can be used as new reference to conduct further research, to get spesific findings and that more usefull for small business.

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