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# **The Relationship between Supply Chain Fit and Return on Assets of the Firm**

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**ABSTRACT:** *The decisive point of financial encroachment of supply chain management has been an ongoing interest. Forming on the operations strategy literature, this study examines the links between the supply chain fit (i.e. strategic consistency between the product 'supply and demand uncertainty and emphasizing on supply chain Structure/design) and financial performance of the firm. We define firms with supply chain fit as firms where the products' supply and demand uncertainty and supply chain responsiveness perfectly match the outcome. The data supports the hypothesis that supply chain fit is positively linked with financial performance of the firm. Contrary to it, supply chain misfit (negative misfit and positive misfit) has a negative relation with firm's performance. Negative misfit is defined as firms that designed their supply chains to support responsiveness while the products' supply and demand is quite certain and the products are predictable. Positive misfit is defined as firms that designed their supply chains to support efficiency while the products' supply and demand is rather uncertain and the products are unpredictable.*

**Keywords:** SCM, Supply fit. Return on Assets

## **Introduction**

Maximum profit from supply chain tasks should be endlessly evaluated and menstruated in order for supply chain owners to find out the impressiveness utilization of supply chain. It is stated that supply chain management having great influence on the financial position of the firm and it is proven by many researchers. Moreover literature work emphasis on the cost cutting and efficient

of the supply chains process and procedures and give less attention on the phenomenal relationship of the product features and its supply chain. The idea of supply chain fit has been familiarized by FISHER (1997) “conceptual supply chain–product match/mismatch framework and has its roots in the manufacturing and operations strategy literature”. In last forty years the skinner is famous for the strong relationship between firm’s over all goals and the production unit of the firm the recent years, working on the competitive preferences companies procedures, arrangements of productions and operations, and totally matched their product specifications and their aggressive strategy and the organizations overall processes(Boyer et al., 2000) in the particular research we extend the article in three basic tools Firstly we more work to expand the productions and operations in the flow of modern age philosophy of supply chain(Chen and Paul raj, 2004; Kouvelis et al., 2006).Secondly, we make an idea as supply chain “fit as matching” (Venkatraman, 1989).

It is clearly recommended that there should be full matched between the product features and the resources to make the product, then we have to segregate between the mismatched. Thirdly, the link between financial performance and the overall strategies regarding to the supply chain fit .For your supervision viewpoint, it is extremely trial to fit offer sequence, and also another highlight is the particular possibility regarding unparalleled the particular method of apply from the supervision using an illustration, Hensley and also Snuffer (2005) considered that they must carry the expense of US\$ 10billin annually due to the fact there's no match up involving the parts service provider as well as the make with the autos market sectors. There is certainly several ideas making finest suit techniques plus it will become a lot more rewarding. When lenders arrive at realize which are the outcomes with the offer sequence suit of your agencies for the efficiency with the agencies They will help make several ideas getting maximum benefit coming from who supply sequence suit. For this specific purpose we have been while using the economic efficiency approach to acquire maximum benefit using this method. Inside the study, we all merely speak about the particular manager’s terminology, which may have significantly information about these kinds of strategies which can be great for this kind of determine.

## **Literature Review**

Nowadays, there exists a challenging opposition on earth industry, together with expense lowering, new services together with the very least time frame, together with large strenuous regarding meet their particular specifications. Inside the favor with this existing circumstance, offer sequence receives a lot more value and also acquiring and offer sequence causing the craze. The method regarding SCM (offer sequence supervision) may be explained simply by Readiness designs, which usually shows the fact PSM turning into a lot more crucial being an enterprise, operate. The particular PSM readiness product manufactured by Vehicle Weal and also Rozemeijer looks at 6 levels: Transactional positioning, business positioning, acquiring coordination, method Positioning Offer sequence positioning and also benefits sequence positioning.

The particular commencing a few significantly focus on operates alone and also outstanding explained the particular combination useful method (Vehicle Weel et’s, 1998; Rozemeijer, 2000;

Vehicle Wheel 2010). Each time a firm is put inside the superior levels regarding readiness product, the complete firm acquire advantages from that as well as the enterprise efficiency is always to increased. There is certainly significantly larger opportunity routines that SCM will be are the cause of.

There is certainly a lot more influence with the economic efficiency with the company. It is vital the business must match up the particular SCM strategies to the business enterprise techniques. The particular readiness product released simply by Vehicle Wheel and also Rozemeijer will not look at a larger efficiency signal that will determine the whole efficiency with the SCM firm in the business, within the last few levels with the readiness product. Nonetheless, these kinds of creators arrive at understand that standard actions tend to be strongly related a smaller amount superior in business methods.

Any time placed on the last levels with the readiness product, they will have a tendency to obstruct the particular adjustments which can be necessary in how SCM functions. (Axelsson) By means of all natural metrics just like Go back about Money Utilized (ROCE), it is strongly recommended to gauge total influences the particular SCM will make the main element locations being targeted from the leading supervision, expense regarding items and also companies, marketing and advertising and also advancement charges, natural substance inventory, funds (transaction phrases), or perhaps money.

The key area of the functions supervision materials throughout the last ten years must increase the in business efficiency. For this specific purpose the business must minimize of these direct moment from your natural substance in order to complete goods, minimize with the wastage in the course of techniques, simply by minimize regarding the number of actual products created by the business. Variety of strategies utilized to acquire wanted final results, which includes: enterprise method reengineering, overall top quality supervision, offer sequence integration, just-in-time (JIT), trim pondering, agile producing, and also activity-based supervision.

We need to verify the web link among garbage (RMI), work-in-process (WIP), done items (FGI), and also overall supply (INV) efficiency (supply efficiency) to the particular earnings regarding running routines (economic efficiency) folks producing organizations inside the 1980-2005 period of time. For this specific purpose company must develop a website link among offer sequence and also economic efficiency with the company. Company must spend their particular sources inside successful and extremely correct techniques which usually develop an optimistic relationship among these. The business must more read the particular scenarios relating to economic and offer sequence, as it takes on an essential function inside the accomplishment with the firm. The particular modify inside economic efficiency actions has been blended on the 1980 2005 trial period of time.

Regardless of craze inside both supply efficiency and perhaps economic efficiency actions, the particular connection among supply efficiency and also economic efficiency stays current around almost all supply sorts and also economic efficiency actions. This kind of stretches the data concerning company offer sequence and also economic efficiency with the company. As well as our own principal share for the previously mentioned, we need to verify combination useful correlations among offer sequence and also economic efficiency, using and endless choice regarding producing organizations, and offer software exactly why far better offer sequence supervision must cause the higher economic efficiency and also increased business worth. We all shift more the particular connected materials around the connection around the offer sequence and also economic efficiency, along with connected study just how offer sequence techniques afflicted the business.

## **Background and Hypothesis**

The operations strategy literature is an important beginning point of the research's argument that match between product supply chains priorities relate to performance. So we concisely discuss the operations strategy which is aligned to our study.

## **Competitive Priorities of the Supply Chain**

A basic element of the operations strategy is the definition of the organization's competitive priorities. These are the basic priorities cost, quality, delivery, and flexibility (Boyer and Lewis, 2002), and also include the innovation (Hayes and Pisano, 1996). A company should maintain a balance between these priorities while utilizing its scarce resources (Skinner, 1969), and with respect to same rate of increment of other priorities (Hayes 1996). In their previous study of the 110 production units they find a balance between cost and flexibility, delivery and flexibility, and delivery and quality exists. This balance is also show a difference between lean vs. agile manufacturing (e.g., Inman et al., 2011) and supply chain strategies (Qi et al., 2009), and also the efficiency and responsiveness are the supply chain priorities, where efficiency indicates the low cost to fulfill unexpected demand and responsiveness shoes how much company react in unexpected demand (Fisher, 1997).

## **Product Characteristics**

Everyone knows that the product specification and product demand are lead to operational processes and supply chains (Skinner, 1969). Hayes and Wheelwright (1979) study shows product-process matrix creating a link between firm's products and its process life-cycle stages. Hayes and Wheelwright claimed that selection of the process should be matched and support the company' product and make a suggestion that the product process matched with its natural structure process. In one end, a firm is manufacturing high volume and standardizes products with the continuous flow shop process and a firm is manufacturing low volume and less standardized products using flexible job shop process. The main thing is that there should be match between product specifications and product structure having a link to performance. According to the supply chain point of view it contains some determinants like product life cycle, margin, product variety, forecasting error, stock-out rate, markdown or distribution intensity, products can be characterized as being either certain/predictable or uncertain/unpredictable (Fisher, 1997; Qi et al., 2009).

## **Supply Chain Fit**

In common scenario, every organization have to achieve higher performance with external and internal resource or *fit*, among strategic, structural, and contextual variables (Alexander and Randolph, 1985; Burton et al., 2002; Gresov, 1989; He and Wong, 2004). In the long study of operation management, having a long history of internal fit, environmental fit, and equi-finality (Boyer et al., 2000). For example, Skinner creates a link between company strategy and its production process. The product-process matrix study giving a statement that product features should be align with the firm's process (Hayes and Wheelwright, 1979). Ward et al. (1996, p. 602) noticed that "manufacturing strategy, competitive strategy, environment, and structure are connected that there are natural congruence's between these elements" and creating a hypothesis

is “if one of them perform extra ordinary while others are not aligned(Ward et al., 1996, p. 623) By expanding the concept of supply chain strategy, we committed on that supply chain is stand on the framework of Fisher (1997) who construct the fit by products are expected or unexpected and the supply chain may be efficient or responsive. In our study supply chain fit is defined as the perfect strategic consistency between a product’s supply and demand characteristics (such as demand predictability, life-cycle length, product variety, service, lead-times, and specific market requirements) and supply chain design characteristics (such as inventory strategy, product design strategy, and supplier selection aspects).For expected and unexpected products exact strategy is get by the efficient or responsive supply chain (Chopra and Meindl, 2010)

*Hypothesis:* Supply chain fit is positively associated with financial performance of the firm.

## **Methodology**

The data was collected through questionnaires and interview during the month of May 2012. . The instrument consists of items relevant to supply chain fit and financial performance of the firm. Approximately questionnaires was distributed to the front 73 managers of manufacturing 8 organization of Faisalabad, all respondents has participate actively in survey. More specifically, we contacted 28 supply chain, logistics, and purchasing executives at the 34 manufacturing firms in this city.

## **Scales of Measurement**

The constructs of interest in this study were measured either using objective secondary data from multiple items from the questionnaire survey. For this purpose, respondents had to give their view in the form of agreed or disagreed. The items used measure from each scale were adopted consist of the literature.

## **Supply Chain Fit**

Supply chain fit is link between the two constants of supply and demand uncertainty of a product and supply chain design characteristics. He respondents have answered these questions according to the firm’s main product line. The product life-cycle is the length of time between the introduction of the product to the market and its removal from the market. The measure of the supply and demand uncertainty is based on the product structure in the product process matrix. We constructed the five measures that cover the uncertainty aspects of the product. The supply chain responsiveness is measured through the competitive priorities in operations management and was used in the supply chain context. Respondents were asked to used five measures with fulfil the needs of the main product on a five-point scale: delivery reliability, buffer inventory of parts or finished goods, buffer capacity in manufacturing, quick response to unpredictable demand and frequency of new product introductions.

## **Financial Performance of the Firm**

The financial ratio Return on Assets (*ROA*) was used to determine the financial performance of the firm. *ROA* as the net income divided by total assets shows how effectively a firm utilizes its assets in generating profit.

Competitive intensity is that the extent to which a company is perceived its competitors to be intense is this area and what should do to compete in the market.

### Reliability and Validity

Before testing our hypothesis, we have to go through the reliability and validity of the items. The construct were gone through EFA and CFA to check reliability and validity, respectively.

### Results

In order to test the hypotheses, hierarchical regression was used. The performance variable *ROA* was first regressed on the control variables and then the independent variable *SCF* was entered. The baseline regression models with all 8 manufacturing firms included show that misfit has a negative impact on performance providing support for our hypothesis that supply chain fit is positively associated with performance.

	Mean	Std. Deviation	Supply demand uncertainty	Supply chain responsiveness
Supply demand uncertainty	3.5688	.62859		
Supply chain responsiveness	3.1813	.57330	.471(**)	
Competitor Intensity	3.5703	.44556	.440(*) .012 32	.548(**) .001 32

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Discussion

The main purpose of this study is to check the effect of the supply chain fit on the financial performance of the firm. If the firms want to achieve the supply chain fit, they have to keep these points in their minds; first, they have to understand the supply and demand uncertainty of the products and customer needs. Second, they have to know about the supply chain strategies like Efficiency and Responsiveness. Third, ensuring that there is a link between supply chain responsiveness and supply and demand uncertainty with these points, firm is able to get the higher rate of return and quickly respond to the unexpected demand.

### Study Contribution

This study initially focusing on the link between supply chain fit and the financial performance of the firm in the Faisalabad. This study is carried on manufacturing organizations, and providing the directions to managers. This paper provides evidence that positive supply chain fit is leading the organization toward higher rate of return. This paper has provides the scales that are valid and reliable and can be used in further study. Study has also provided supply chain fit model that

can be used as base if anyone wants to study more about this topic. If the organization shows a positive interest towards the supply chain fit, they go towards the improvements and more return on the Asset and if the organization shows the negative misfit, the objectives which are set by the firm can't be achieved. A fit between Supply chain and financial condition positively impacts the performance of a firm. The framework developed can be used by managers to assist in thinking through possibilities to link supply chain fit and return on assets.

### **Limitations and Future Research**

This study also has some limitations because data was collected from only eight organizations and at initial stage in Pakistani manufacturing firms. This study is also conducted on the textile and apparel industry and food and beverages industries. Our study is cross-sectional. It is very difficult to collect large sample. This paper is focusing only on manufacturing organization. Secondly this data is collected on initial stage of this study, as it will be widely acceptable it will provide much better results. And the data is collected from front line managers and supervisors, corporate level management might be able to provide feedback about supply chain strategies and the average rate of return of the firm.

This is the first research which has empirically tested in context of Pakistan. The propositions were based on an extensive supply chain research literature. The present study is of unique nature in this area but still it needs a lot of dimensions to be explored keeping in mind nature of data and analysis approach. Future studies can be conducted taking into account longitudinal data accompanied by multilevel statistical techniques. This study is limited in its scope and generalizes ability due to small sample size.

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