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Factors Of Dissatisfaction In Supplier Selection

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The modern-day product is an amalgam of various ingredient products sourced from different vendors and finally put together as a final product. The quality of the final product is dependent on the quality of its ingredient products. However, the manufacturer suffers when there is a problem with any of the suppliers. The problem can manifest in multiple ways like in terms where the product quality does not pertain to what was initially agreed upon or it the vendor is unable to meet the increase in production or if the vendor does not match up to improvement in product specifications and so on. Christopher and Lee (2004) found that it was highly challenging to manage risks in the present environment. Hence this indicates the reason for such amount of importance to be ascribed to supplier selection process. Ferguson and Johnston (2011) hinted that the link between customer dissatisfaction and impending buying behaviour has achieved considerable attention in marketing research. Richard (1997) observed dissatisfaction as the overall affective response triggered by an inadequate return from the process of consumption. De Boer, Labro and Morlacchi(2001)indicated that a poor decision making in choosing the right vendors may lead to severe problems

Review of literature

Tronvoll, (2007)found that customers tend to form a negative cognitive and emotional impression when they felt dissatisfied towards a service. Ghodsypour and O'Brien (1998) identified that materials purchased and parts make close to seventy percent of final cost. Zsidin, (2003) defined Supply Risk as those elements that interrupt material and information flow between manufacturer and supplier company. Chopra & Sodhi (2004) identified that a simple interruption along the chain may generate atemporary risk but a sole vendor holding up a manufacturer to ensure a price increase represented along-term risk. Christopher and Lee (2004) pointed out that price increase by vendors can be dampened by engaging in long-term contracts, having redundant suppliers or, by occasionally holding inventory. Rowe (1980)defined risk as the possible undesired negative costs that ascend from an activity. Christopher, Martin & Peck, Helen. (2004) defined Supply risk as related to possible or actual instabilities to the movement of product or information originating from within the network, upstream of the focal firm. MacDuffie and Helper (2007) stated that the manufacturer will profit from actionstaken to improve supplier performance, as the productivity benefits are shared by both the manufacturer and the supplier.

Objective

To develop a comprehensive scale and identify the factors of dissatisfaction in case of failure in choice of supplier

Method

The questions were based on factors of dissatisfaction in the case of mismatch in choice of supplier This scale was established on Likert scaleranging 1 -5 and extending from

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strongly disagree anchored at 1 to strongly agree anchored at 5. The research instrument used was an interviewer administered survey. The research instrument was developed using the theoretical base of the dimensions of supplier selection and the contextual basis of the focus group outcomes. The resultant questionnaire comprised 20 Likert scales reflecting the different dimensions of dissatisfaction in case of supplier not being able to fulfil his commitments. Exploratory factor analysis with varimax rotation was conducted on the twenty questions. A total of 200 respondents working in production and purchase division of the different auto mobile companies of Chennai were commissioned for the study.

Bartlett's test of sphericity and Kaiser-Meyer-Olkin test were done to assess the factorability before carrying out EFA. The KMO measure of sampling adequacy was found as 0.770 and the significance of Bartlett's test of sphericity were less than 0.001, indicating that EFA can be carried out.

Table 1: **Exploratory Factor loading of perceived influence of music on consumers dining at hotels**

	Components	Dimensions	Loadings
Q1	Supplier not able to adhere to uniform quality in all products	Quality	.793
Q2	Supplier not eliminating defective products		.758
Q3	Supplier products tends to wear out earlier		.749
Q4	Supplier product does not match with specifications		.726
QY1	Supplier unable to supply the required quantity	Quantity	.807
QY4	Supplier not able to meet fluctuating demand		.766
QY2	Supplier does not have proper ware housing facility		.736
QY3	Supplier has abrupt plant shut downs due to miscellaneous reasons		.733
CUS1	Supplier not able to change according to requirement of products	Customization	.851
CUS3	Supplier does not get involved in new product development		.756
CUS2	Supplier does not have a strong in-house R&D team		.724
CUS4	Supplier does not prefer to have their employees trained at manufacturer campus		.675
MP4	Supplier does not provide training at every stage of career	Manpower	.858
MP1	Supplier has labor relations issues		.784
MP2	Supplier does not seem to maintain privilege design details		.740
MP3	Supplier does not possess a high capability work force		.672

Summary Statistics	**F1**	**F2**	**F3**	**F4**
Eigen Values	3.533	2.599	2.279	1.336
% of variance explained	22.081	16.241	14.243	8.353
Cum % of variance explained	22.081	38.322	52.565	60.918
N =200	Sample = All respondents		Unit = Factor loadings	

The first factor that classified was identified as quality and comprised statements such non adherence of uniform quality, no elimination of all off specification products, products prematurely tending to get worn out and products not matching to specification. Barnett, 2014 found that stake holders tend to act against an organization which they perceive does not give due importance to its obligations and indulge in wrong doing. Treleven, & Sharon (1988) identified that in many cases to achieve quality standards the vendee will partner with the vendor and the amount of effort expended by the vendee depends on the possiblitiesr of

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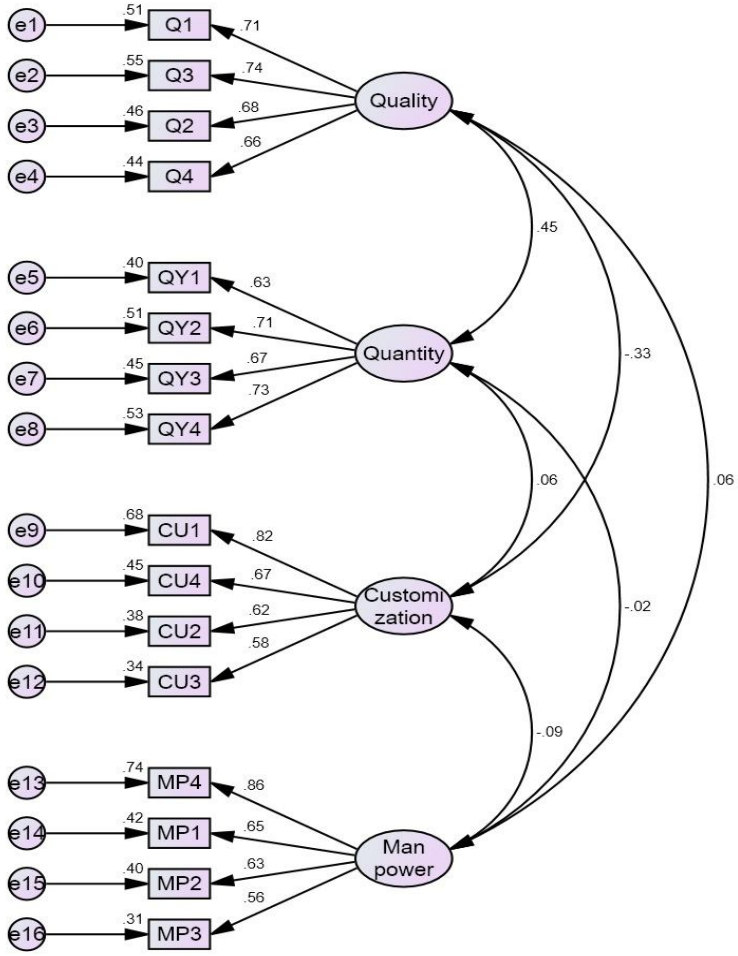
sourcing options available to vendee, the attitude of the vendor management and the probability that the work will end in a success to the vendor. Bogataj and Bogataj(2007) found that the risk in a supply chain as the possibledisparity of outcomes that cause a decrease of value added at any activity cell in a chain, whose outcome is specified by the volume and quality of goods in a location and specific time in a supplychain flow.This factor accounted for 22.08 percent of variance

The second factor that emerged was labelled quantity and included statements such as being unable to supply the requisite quantity, being not able to meet fluctuating demand, does not have proper warehousing facility, and frequent shut downs being under taken n vendor plant. Chopra & Sodhi (2004) found that material flow delays often befell when a vendor, because of high utilization or some other cause of inflexibility was unable to respond to changes in demand. Mukherjee (2014) found that the main purpose of supplier selection was not limited to getting a disturbance free supply at a lower low cost and right time but a strategic decision to accomplish the company's production need over a long period of time. This dimension accounted for 16.24 percent of variance



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The third factor that was identified as customization included statements such as inability to change according to the requirement of products, not being involved in new product development, not having a strong in-house R&D team, and a non-preference to have their man power being trained by manufacturer. Chopra & Sodhi (2004) found that Leading companies dealt with supply-chain risks by maintaining reserves. Primo & Amundson (2002) stated early supplier involvement felicitated benefits in new product development on multiple levels such as price, quality, swiftness, innovation, and performance. Chen & Muller (2010) revealed that nourishing a competitive advantage over a period of time required competitive and nascent skills to developing new products and services. Petersen et al. (2005) insisted that companies tend to benefit on design, development and manufacturing through supplier involvement in new product development. This dimension accounted for 14.24 percent of variance

The fourth factor to divulge was labelled manpower and was made up of statements like absence of continuous training, labour relations issues, not maintaining privilege design details and not possessing a highly capable work force. Chopra & Sodhi (2004) found that stockpiling inventory can protect a company against delivery delays caused by suppliers albeit a build of reserves in a wild manner would hike up the costs in-turn damaging the bottom line. Mishima (1992) indicated that Toyota employed team leaders capable of working on any station to make up for absences and ensure that daily production targets are met. Porter (1998) that firms pursues to be exclusive in its industry along some dimensions that are extensively appreciated by buyers as part of a differentiation strategy. Nydick and Hill (2003) brought out the importance of service characteristics that included research and development back-up, man power capabilities and production capacity. This dimension accounted for 8.35 percent of variance.

Model fit: This diagram portrays anacceptable data fit. The CMIN/ DF ratio was 1.214, and is well within the approved range of less than 3 and is suggestive of a satisfactory fit between the sample data and hypothetical model. The values of the fit indices are represented in the table given below and the values represent the model as acceptable. Hu and Bentler (1999) found that a CFI value greater than 0.95 cut-off is a good model fit. The values of TLI and IFI above 0.95 confirm the good fit The GFI(goodness of fit index) mentioned by Joreskog and Sorbom (1984)value is less than 1 where one indicates a flawless fit.

Table 3 Model fit indices for the three dimensions of supplier risk

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Index of fit	CMIN	DF	CMIN/DF	GFI	IFI	NFI	TLI	CFI	RMSEA
Value	118.993	98	2.39	.942	.979	.893	.974	.979	.031

The internal consistency for the fourdimension was examined using Cronbach's alpha. Reliability is defined as the degree to which a test reliably measures whatsoever it measures. Cronbach's alpha details the internal consistency of elements in a survey instrument to evaluate its reliability.

Table 4 - Reliability analysis

Dimensions	Cronbach's Alpha
Quantity	0.78
Customization	0.76
Quality	0.79
Man power	0..76

The reliability of the four dimensions foundthrough Cronbach's alpha calculation were foundpassable as they are above 0.70

Reichheld(1996) identified that the first thing investigators do after a plane crash is to salvage the flight recorder and spend whatsoever it costs to analyse on what went wrong. Hence it is highly necessary to find out the major possible issues that may crop out in case of a failure in the supplier selection process. This in turn can act as a path finder to weed out possible inefficient suppliers.Unless the company has a clear blue print of possible pit falls it cannot make out on what factors need to be studied in the selection of a supplier. The risks once established will keep the manufacturer watchful for the possible negatives that can arise out of the wrong doings or short fall of the supplier. It is essential to continually monitor the risks that should served as cues in the management of the suppliers and look for initial warnings that there can be glitches that need instantaneous attention.The above scale developed will be useful to automobile manufacturers in their choice of suppliers. For further studies the study can be expanded to cover vendors of other products.

Annexure 1 Dimensions of dissatisfaction in supplier selection

Components	**Mean**	**SD**	**Dimension**	**Mean**	**SD**
Supplier unable to supply the required quantity	2.70	1.16	Quantity	3.07	0.85
Supplier has abrupt plant shut downs due to miscellaneous reasons	3.22	1.05			
Supplier not able to meet fluctuating demand	3.22	1.05			
Supplier does not have proper ware housing facility	3.16	1.13			
Supplier not able to change according to requirement of products	2.93	1.04	Customization	3.01	0.80
Supplier does not have a strong in-house R&D team	3.10	1.03			
Supplier does not get involved in new product	2.99	1.02			

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development					
Supplier does not prefer to have their employees trained at manufacturer campus	3.01	1.10			
Supplier not able to adhere to uniform quality in all products	3.19	1.15	Quality	3.10	0.96
Supplier not eliminating defective products	3.02	1.27			
Supplier products tends to wear out earlier	3.08	1.32			
Supplier product does not match with specifications	3.13	1.16			
Supplier has labor relations issues	2.59	1.16	Man Power	2.51	0.88
Supplier does not seem to maintain privilege design details	2.55	1.14			
Supplier does not possess a high capability work force	2.42	1.17			
Supplier does not provide training at every stage of career	2.48	1.14			

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