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## **A Comparative Study of Consumer Perception of Product Quality: Chinese versus Non-Chinese Products**

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### **ABSTRACT**

Product quality is a critical determinant of consumer satisfaction. The demand for a product depends upon the quality that a manufacturer is providing to their consumers. China, which is a growing economic power, exports its manufactured goods to the entire global markets. Chinese goods have been successful to capture market because of its competitive price strategy as compared to the products of other countries. The major problem with the Chinese products is that these are perceived as of relatively inferior quality in comparison to the products of other countries. This study is an attempt to assess the perceptions of customers regarding price and quality aspects of Chinese and non Chinese products. To compare the relative effectiveness of price and quality, the concepts of perceived life and perceived value are used. It is found that the Chinese products are perceived as price effective but the area of product quality requires immediate attention because Chinese products are perceived as of low quality.

**Key Words:** Product Quality, Consumer Perceptions, Perceived Quality, Product Quality Metrics

**JEL Classification:** M30, M39

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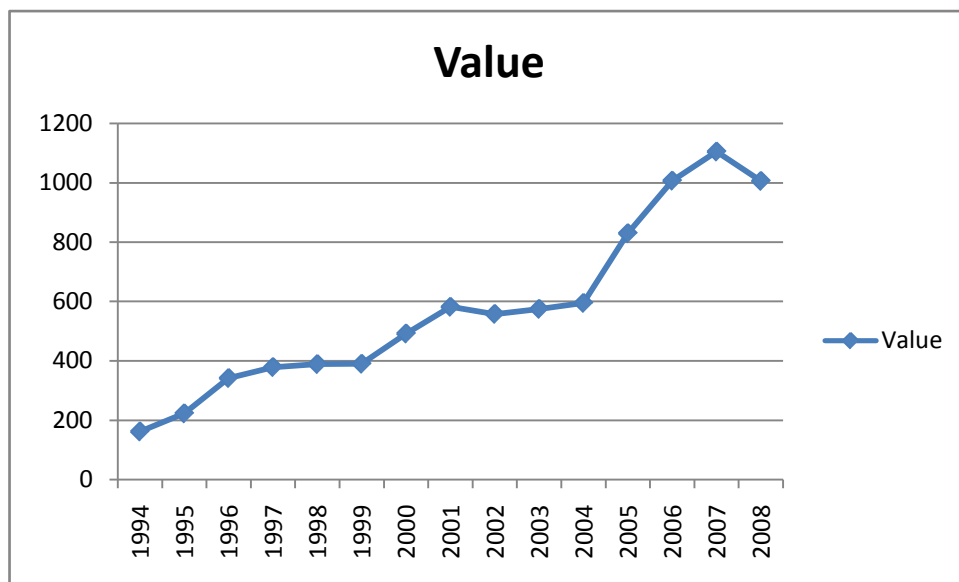
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## 1. INTRODUCTION

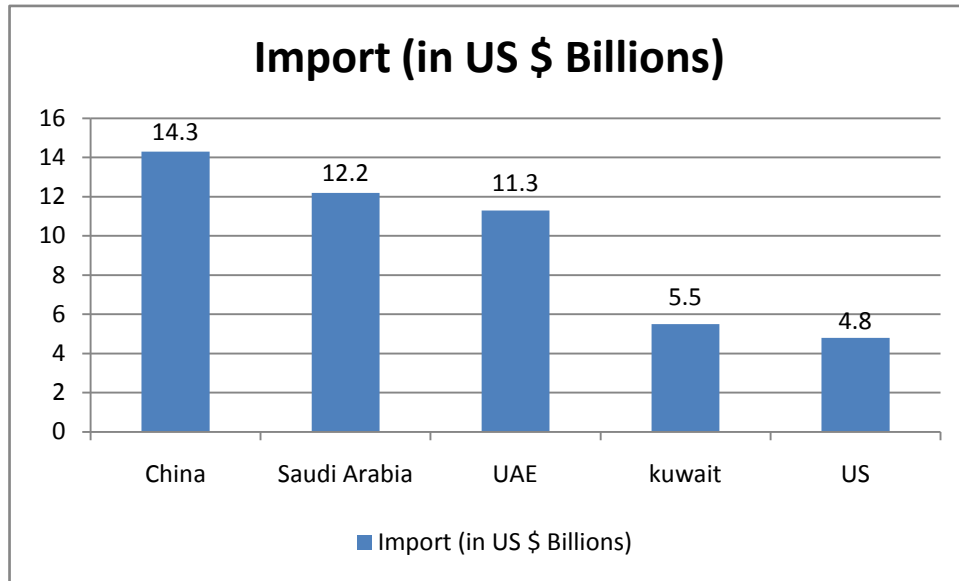
It is being observed that the sale of Chinese manufactured goods is very common in the markets around the globe and Chinese products such as home appliances, generators, stationary items, clothes and fabric and hardware are dominating specially in the Pakistani markets. Figure 1 shows the import of manufactured goods from China following a consistently rising pattern while Figure 2 shows the Pakistani imports (Billion US \$) from China and other import partners for the year 2009.

**Figure 1: Import of manufactured goods from China in billion US\$**



Source: China Pakistan Bilateral Trade Statistics (<http://pkmoftcom.gov.cn>)

**Figure 2: Pakistan Import Partner 2009**



Source: Economy Watch.com ([http:// economywatch.com/files/u15/Pakistan-trade1.jpg](http://economywatch.com/files/u15/Pakistan-trade1.jpg))

Consumers are usually attracted by low price of Chinese goods as compared to goods imported from other countries but on the other hand they are skeptical about the durability of Chinese manufactured goods. Dzever and Quester (1999) observed that, a country's origin and its perceived quality can impact future purchasing decisions. The quality of manufactured goods is an important factor for consumers and is considered as an important factor for the exports too. The importance of consumer perceptions of quality and country-of-origin has been emphasized in research papers (Garvin, 1984; Thurston, 1984).

This study focuses on comparing the quality, durability and value of goods manufactured by China and other countries available in the markets of Pakistan as perceived by consumers. Such type of study has not been carried out in Pakistan but in other countries similar studies could be found. For example Schniederjans, Cao, and Olson (2004) and Schniederjans et.al (2011) have studied consumers perception about the quality and value of Chinese goods in U.S.A. Gary and Alain (1978) studied the perception of consumers about foreign products in France. Wall and Heslop (1986) studied consumer attitudes toward Canadian-made versus imported products in Canada. Durvasula et.al (1997) conducted a study about a cross-cultural ethnocentrism in US and Russia, while Apil, Kaynak and Todua (2008) studied the perceptions of customers in Georgia in regarding Turkish goods.

## 2. LITERATURE REVIEW

Schniederjans, Cao and Olson (2004) discussed U.S consumer perception of product quality of Chinese made goods. Schniederjans, et.al, 2004 studied consumer's perception about quality of the items imported from China. Consumer Product Value was measured by a simple economic approach of indexation.

Schniederjans, et.al (2004) suggested that the Chinese manufacturers should prioritize their quality improvement programs by improving the material used in products and by improving their processes. Since the government is not taking interest to check low quality Chinese made products and allow their imports, Schniederjans et.al (2004) suggested that researchers should come forward and address this issue.

Schniederjans et.al (2011) used the same metrics as used by Schniederjans, Cao, and Oslon (2004) to measure the consumer current value. They also found that the average quality rating of Chinese products was 2.082 out of 10 (poor rating) supporting the hypothesis that Chinese manufactured products are perceived as having significantly lower quality than those imported from other countries.

Morjorie and Lousie(1986) studied Consumer Attitudes toward Canadian-made versus imported products in Canada. They collected data from 635 respondents regarding the attitude of Canadian consumers towards the quality of Canadian and imported goods, cost of making quality product and attitude of workers in making quality product in Canada

They concluded that, in general, the attitude was positive, with 85.2% reporting that the quality of Canadian products had improved or stayed the same in the past five years and the attitudes about the next five years were equally optimistic.

Baumgartner, ConfTrences, Jolibert, and Assistant (1978) conducted a study about the perception of foreign products in France using the theory of perceived risk as a criteria for the choice of products to be studied. One theory in consumer behavior which seems particularly appropriate to the study of foreign product perception is the theory of perceived risk. Perceived risk related to purchase depends on two determinants (Cox, 1967). First is the degree of uncertainty concerning the suitability of the product and second is the importance which consumer affects to the possible adverse consequences of the purchase. Both of these

determinants could be intimately linked to foreign products. Along with these two determinants there is an additional uncertainty due to the origin of the product.

Tsiotsou (2005) investigated the effect of various perceived quality levels on product involvement, overall satisfaction and purchase intentions in Athens, Greece. This study was based on the idea that a better understanding of the relationship between perceived product quality and product involvement, consumer satisfaction and purchase intentions, may help academics to develop a model of consumer decision making for goods.

### **3. METHODOLOGY**

#### **3.1. Data Collection**

To conduct this study, an online survey questionnaire is designed that targets the consumers belonging to various universities located in Karachi. Due to the limitation of availability of E-mail addresses of consumers and other constraints, the target population is restricted to Business Institutes only. The items manufactured by China and other countries are available in the markets of Karachi and the items included in this study have been considered on the basis of a survey of different markets in Karachi.. Most of the items are as included by Schniederjans, Cao, and Olson (2004) and Schniederjans, Cao, Schniederjans, and Gu (2011). Few items that are available in Karachi have also been included in the list. The list of items included in this study comprises of 77 items. The items being included are placed in different categories named as Lawn Furniture, small appliances, electronic items, clothes and fabric products, Hardware items and General Miscellaneous as given in Appendix 2.

The questionnaire was forwarded to the consumers of the Chinese products belonging to Business Institutes of Karachi. We received 356 responses, out of which 271 were found complete in all respect and have been included in this study. The demographics of the survey are presented in the Tables 1(a), 1(b) and 1(c).

**Table 1(a)**

**Age groups of respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid under 20	48	17.7	17.8	17.8
20 - 29	189	69.7	70.0	87.8
30-39	23	8.5	8.5	96.3
40 or above	10	3.7	3.7	100.0
Total	270	99.6	100.0	
Missing System	1	.4		
Total	271	100.0		

**Table 1(b)**

**Marital Status of respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single	225	83.0	83.3	83.3
married	45	16.6	16.7	100.0
Total	270	99.6	100.0	
Missing System	1	.4		
Total	271	100.0		

**Table 1(c)**

**Gender of respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	188	69.4	69.6	69.6
female	82	30.3	30.4	100.0
Total	270	99.6	100.0	
Missing System	1	.4		
Total	271	100.0		

### 3.2. Measures

Perceived product quality is perhaps one of the most important constructs in marketing .In recent years perceived quality has been the subject of considerable interest to both practitioners and researchers, mainly in services marketing (Cronin & Taylor, 1992; Parasuraman, Zethaml & Berry 1996). Indeed, the belief that perceived quality leads to repeated purchases is the bedrock of any business. Thus a better understanding of the relationship between perceived product quality and product involvement, consumer satisfaction, and purchase intentions may help academics to develop a model of consumer decision making for goods. (Rodoula Tsotsou 2005) Products life or “durability” is equally important as price criteria to the consumer in a purchasing decision. For last several decades market research studies have consistently confirmed that product durability is a primary factor that influences repeat purchases (Wheatley, Chiu and Goldman, 1981), and Pisek (1987). Chase, Aquilano and Jacobs,( 2000, 6) studied ratio of price and durability. Wheatley, Chiu and Goldman (1981) discussed the relation between Price, durability and satisfaction.

Consumer perceptions of price, quality and value are considered pivotal determinants of shopping behavior and product choice (Bishop1984, Doyle 1984. Jacob and Olson 1985, Schlechter 1984)

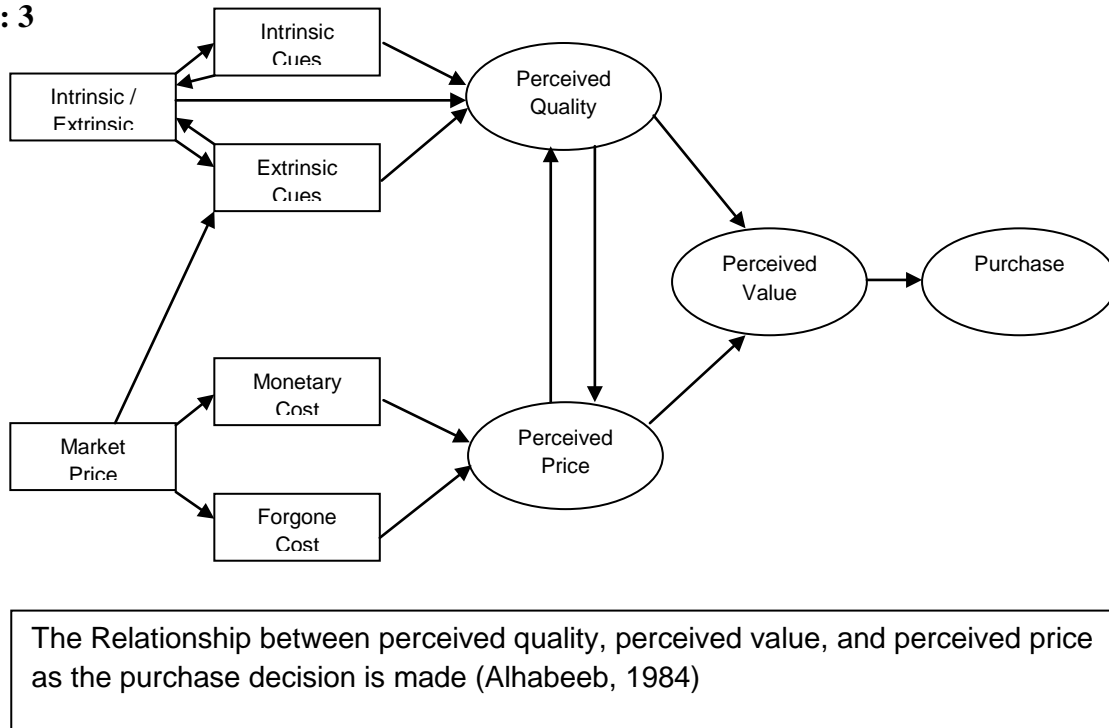
Of particular importance is the fact that many research studies have shown that metrics based on customer knowledge about pricing and their perceptions of product durability are appropriate measures that can be used to reflect conditions of product quality or product value by the customers to determine consumer product purchase behavior (Schniederjans et.al, 2004).

Devaraj, Fan, and Kohli (2002) demonstrated that consumer satisfaction as related to quality service could be accurately measured with survey instruments

Schniederjan, Cao and Olson (2004) have concluded that perceptions of consumer purchasing behavior can be accurately measured. Consumer product price and durability are primary factors in future consumer purchasing decisions. Also price and durability can be linked together to compute a consumer metric called “product value”.

A model relating Perceived Quality, Perceived value, and Perceived Price as the purchase decision (Alhabeeb, 1984) is given in the Figure 3

**Figure: 3**



The Relationship between perceived quality, perceived value, and perceived price as the purchase decision is made (Alhabeeb, 1984)

On the basis of the above mentioned references it can be concluded that Price and durability of a product make a customer satisfied about the product. Hence satisfaction of a customer about a product is related with the constructs perceived price and perceived durability, and it influences the purchase decision in future. As the consumer product price and durability are the primary factors for making decisions about future purchase, therefore the metrics based on customer knowledge about pricing and their perceptions about the durability of a product are suitable measures that can be used to reflect conditions of product quality and product value. Survey questionnaires are a primary means for collecting data of consumer perception of price, quality and value.

To achieve the objectives of this research several metrics will be developed to measure perceptions of respondents from business institutes of Karachi on product quality and purchase decision behavior.



### **3.3. Research Instrument**

The research instrument for this research comprises of 18 questions. The questions are about age, gender, marital status, education, origin of the item in use, price of the item, expected age of the item in use, satisfaction level etc. As our research is also on the same line as of Schniederjans, Cao, and Olson (2004) and Schniederjans, Cao, Schniederjans, and Gu (2011) and the research instrument used in their researches is competent in capturing the required information related to Price, age of the item in use, quality of the item, therefore we have adopted most of the questions of these researches. In the questionnaire used in this study, the questions about perceived quality of item, satisfaction and purchase intention are same as of Cao, and Olson (2004), Schniederjans, et.al (2011) and Tsotsou (2005).

The constructs of our research instrument was pretested with a focus group to determine, whether the questions are correctly understandable for extracting the required information and to determine whether the questions are valid or not. The results of this pretest revealed no misinterpretation of the questions. The questions used in this study are presented in Appendix.

## **4. PURPOSE AND HYPOTHESIS**

The purpose of this research paper is to study consumer perception on the quality of products made in China. In this research we will concentrate about following two objectives:

1. To compare Business institutes consumers-based perceptions on the quality of Chinese made goods with the perceptions of non-Chinese goods.
2. To compare Business institutes consumer-based perceptions on the value of Chinese made goods with the perceptions of non-Chinese goods.

In the light of objectives of this research following alternatives have been stated to test their truthfulness.

H1: Chinese manufactured products are perceived significantly low in price as compare to products produced in other countries.

H2: There is significant difference between the mean perceived life of the products manufactured by China and by other countries

H3: There is significant difference between the mean perceived values of the products manufactured by China and by other countries.

H4: Chinese manufactured products are perceived as significantly low in quality as compared to the products produced in other countries.

H5: A significant paired difference exists between the prices of Chinese and Non Chinese products.

## 5. VARIABLE MEASUREMENT METRICS

In this research Simple Economic Indexation procedure has been used for comparing the perceived quality and value of Chinese manufactured goods and non-Chinese manufactured goods. The quality characteristics of the products used in this research are product price and product durability. The ratios for both the Chinese and non-Chinese products are:

$$\text{Product Value (Chinese product)} = \frac{\text{Mean price paid for Chinese products (in Rs.)}}{\text{Mean number of months product actually lasted}} \quad (1)$$

$$\text{Product Value (Non-Chinese product)} = \frac{\text{Mean price offered for Non-Chinese products (in Rs.)}}{\text{Mean number of months product was expected to last}} \quad (2)$$

The lower the value of the index, the better the overall perceived quality of the product. Quality is defined as the duration of useful life relative to the price paid for the product (Schniederjans et.al, 2004).

The computation of net product value is based on the ratios in equations 1 and 2 given as under:

$$\text{Net product value} = \text{Product value (non-Chinese)} - \text{Product value (Chinese)} \quad (3)$$

The larger the product value, the greater is the price /cost of their use. As long as net product value is positive, the value of the non-Chinese products is better than the Chinese products, if net product value is negative, the Chinese products sampled in this survey are rated as more price /cost-valued than the non-Chinese products (Schniederjans et.al, 2004).

In order to compare the relationship of non-Chinese product value with that of Chinese product value is a simple price ratio index of the product values:

$$\text{Product value index} = \frac{\text{Product value (Chinese)}}{\text{Product value (non-Chinese)}} * 100 \quad (4)$$

A product value index less than 100 favors Chinese goods, while an index greater than 100 favors non-Chinese made goods (Schniederjans et.al, 2004).

Computation of Equation 1 is based on the responses to question 8 and 9 while computation of equation 2 is based on responses to questions 10 and 12. The responses are however based on the assumption that the respondent:

- 1) remember the price and
- 2) remember that it was a Chinese or non – Chinese product

## 6. DEFINITIONS OF VARIOUS FACTORS USED

<b>Term</b>	<b>Definition</b>	<b>Reference</b>
<b>Price</b>	The price which consumer pay for purchases is, technically, what they give up or sacrifice, measured in Monetary terms, to get the desired goods and services.	(Dawar,1999)
<b>Perceived price</b>	Perceived Price is the consumer's own judgment of the magnitude of sacrifice and its worthiness in comparison to what would be gained	Jacoby & Olson, 1977 Zetaml,1991
<b>Perceived Quality</b>	It is the consumer's judgment or his global assess about the superiority or excellence of that product.	Ahtola1984, Monroe & Krishnan1985, Chapman 1986, Mazander1986, Zethaml1991.
<b>Value</b>	Value is defined as a ratio of attributes weighted by their evaluations divided by the price weighted by its evaluation.	Sawyer and Dickson, 1984

## 7. FINDINGS AND DISCUSSIONS

The number of responses to each survey question from the total of 271 subjects is presented in brackets in Appendix 1. Based on the sample of 271 responses the mean price, mean durability, product value, net product value and product value index measures were computed and presented in Table 2. It gives comparative analysis of Product value and net product value for the Chinese and Non-Chinese product. It also gives the Product Value Index, the value of which can be interpreted with respect to the standard value of 100. If for any product, we get 100 as the Product value index, it indicates that the Product Value for both Chinese and Non-Chinese for that product is same. Any value less than 100 indicates that the product value of Chinese Product is greater as compared to the Non-Chinese Product. Similarly, if it has a value greater than 100, it favors the Non-Chinese Product in terms of Product Value Index. We can identify that travelling bags is the product having Product Value Index of 101.67 which is closer to 100, and it implies that for this product the respondents are indifferent regarding the product value of Chinese and Non-Chinese product. The items watches (10.40) and Phone set (228.99) have the lowest and highest Net Product Value Indices respectively.

In this research, a list of 62 items is included in the questionnaire but by studying the responses of 271 respondents it has been observed that they have used only 46 items in their responses. But out of 46 items, only 16 items contain 6 or more observations. Therefore the item-wise study to compare the price of Chinese products and Non Chinese products in this research is based on 16 items only.

The average quality rating (that is, question 7, Appendix1) on Chinese product is 3.1292, falling in the “Fair value” range, based on all 271 subjects. The product value index gives a mixed indication of the product of preference about Chinese products. The consumers have indicated a better perceptions ( 3 and above ) about Chinese products for the items Table & chairs, Phone sets, Shirts (Male), Table tennis Tables, Office chairs, Stationary and Travelling bags ( Table 2 ).

**Table 2**

**Measures of interest as found for multiple characteristics of selected products**

Items	N	Mean Price (N-Chinese)	Useful life (Expected)	Product Value( N-Chinese)	Mean Price (Chinese)	Useful life (Chinese)	Product Value(Chinese)	Net Product Value	Product Value Index
Chairs	4	7700	35.5	216.9014085	2250.0000	39	57.69230769	159.2091008	26.5984016
<b>table chairs</b>	4	35333.33	29.5	1197.74	21250.0000	12.75	1666.666667	-468.9266667	139.1509565
Electric shavers	7	2666.67	24.14	110.46686	1085.7100	26.6429	40.75044383	69.71641615	36.88929317
Hairdryers	2	5700	10.5	542.8571429	1900.0000	4.5	422.2222222	120.6349206	77.77777778
Headphones	37	2375	13.92	170.6178161	1453.2400	21.36	68.03558052	102.5822356	39.87601183
DVDPlayers	15	30101.2	38.93	773.2134601	6494.5300	20.43	317.8918257	455.3216343	41.11307448
<b>Phone set</b>	15	7430	27.68	268.4248555	8667.0000	14.1	614.6808511	-346.2559956	228.9955041
mobile phones	80	14626.47	20.79	703.5339105	8521.2500	17.79	478.9910062	224.5429044	68.08357053
Elecdrills	2	11000	72	152.7777778	7500.0000	63	119.047619	33.73015873	77.92207792
Elecfans	4	3000	18.5	162.1621622	3000.0000	23	130.4347826	31.72737955	80.43478261
wall clocks	8	11658.33	16.5	706.5654545	4481.2500	10.4	430.8894231	275.6760315	60.98365273
Deskclocks	2	2000	18	111.1111111	375.0000	17	22.05882353	89.05228758	19.85294118
Elecfoodmixers	6	5333.33	20	266.6665	3166.6700	20	158.3335	108.333	59.37509961
Calculators	19	1930	20.16	95.73412698	1431.5800	17	84.21058824	11.52353875	87.96297714
Watches	7	10804	19.36	558.0578512	1478.5700	25.4714	58.04824234	500.0096089	10.40183239
<b>Shirts male</b>	9	1334.38	18	74.13222222	1305.5600	14.375	90.82156522	-16.689343	122.5129404
Pantsfemale	4	7350	14.25	515.7894737	3712.5000	12.5	297	218.7894737	57.58163265
Shoesmale	17	2778.13	15.13	183.6173166	1411.7600	11.3	124.9345133	58.68280332	68.04070313
Shoesfemale	8	1100	15.29	71.94244604	712.5000	11.15	63.90134529	8.041100752	88.82286996
Flashlights	17	1750	14.79	118.3231913	978.8200	19.8	49.43535354	68.88783781	41.77993593
Badminton	2	3000	35	85.71428571	1225	24	51.04166667	34.67261905	59.54861111
<b>Tabletennistable</b>	1	15000	35.5	422.5352113	8000	11	727.2727273	-304.737516	172.1212121
desk lamps	1	4250	24	177.0833333	750	30	25	152.0833333	14.11764706
Nonelectrical toys	5	8632	10.2	846.2745098	5240	11.86	441.8212479	404.4532619	52.20779343
<b>office chairs</b>	2	9500	26	365.3846154	5666.6700	4	1416.6675	-1051.282885	387.7195263
<b>Stationary</b>	6	34669.17	21.98	1577.305278	23120.0000	14.58	1585.733882	-8.428604505	100.5343674
Suitcases	3	4966.67	15	331.1113333	4658.33	19	245.1752632	85.93607018	74.04617072
<b>travelling bags</b>	3	3100	17.8	174.1573034	2160.0000	12.2	177.0491803	-2.891876957	101.6604971
kitchen accessories	10	5053	17.37	290.9038572	3079	12.4	248.3064516	42.59740561	85.35687838

Net Product value computed for 271 subjects on the basis of questions 4 - 8 is given in Table 2, which indicates that 22 items out of 29 items carries positive sign and it implies that 22 non-Chinese products have greater product value as compared to the same Chinese products. Negative sign is appearing with the measures of 7 products favoring these 7 Chinese products i.e. Table & chairs, Phone sets, Shirts (Male), Table tennis Tables, Office chairs, Stationary and Travelling bags (These items are in bold in the Table 2). Therefore, it can be concluded that consumers perceive 7 of these Chinese products better than competing non-Chinese products.

### 8. DATA ANALYSIS

In this research data analysis has been performed with the help of SPSS 17 in two stages. At the first stage, in order to test the hypothesis H1, H2, H3 and H4, independent samples testing has been performed the output of the analysis has been presented in the table 3

**Table 3**

Independent Samples Test										
		Equality of Variances		t-test for Equality of Means						
									the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
price of products	Equal variances assumed	10.747	.001	-2.746	540	.006	-5666.26937	2063.53071	-9719.80053	-1612.73821
	Equal variances not assumed			-2.746	387.620	.006	-5666.26937	2063.53071	-9723.38309	-1609.15565
product life	Equal variances assumed	1.850	.174	-.429	540	.668	-.91587	2.13662	-5.11297	3.28124
	Equal variances not assumed			-.429	406.776	.668	-.91587	2.13662	-5.11606	3.28433
product value	Equal variances assumed	.402	.526	-.701	540	.483	-137.11123	195.51929	-521.18283	246.96037
	Equal variances not assumed			-.701	539.396	.483	-137.11123	195.51929	-521.18380	246.96134
perceptions regarding quality	Equal variances assumed	1.419	.234	-10.086	540	.000	-.88192	.08744	-1.05368	-.71015
	Equal variances not assumed			-10.086	536.450	.000	-.88192	.08744	-1.05369	-.71015

By looking at the significance values for t-test in Table 3, following conclusions could be made:

- The mean perceived price of Chinese products is significantly less than the average price of Non-Chinese products, which supports our  $H_1$ .
- The difference between the mean perceived life of Chinese products and Non-Chinese products is statistically insignificant and therefore our  $H_2$  is not supported.
- The difference between the mean perceived products value for Chinese and Non-Chinese products is insignificant therefore our  $H_3$  is not supported.
- The difference between the mean perceived quality for Chinese and Non-Chinese products are significant which supports our  $H_4$ .

In the second phase of the statistical analysis, the testing of the hypothesis  $H_5$  has been performed. It is the item-wise study to compare the mean perceived price of Chinese products and non-Chinese products for each item. It is based on 16 out of 46 items where each item has 6 or more observations of prices for China and other countries. At first in order to use paired t-test, the normality of the data of prices for China and other countries has been studied by using Normal Q-Q plots for each of these 16 items. The QQ Plots indicates the absence of normality in the paired differences. But it was observed that there is symmetry between the plots of prices of these items made by China and by other countries for each of these items. Therefore Wilcoxon Signed Rank Test has been employed for testing  $H_5$ . The results of this analysis have been given in Table 4.

Table 4 represents the Wilcoxon Signed Rank Statistics and p values. It is concluded that significant paired difference exists between the prices of Chinese and non-Chinese products for the items electric shavers, headphones, radios, mobile phones, wall clocks, calculators, shirts (male), shoes (male) and flash lights, which supports  $H_5$  for these items but for the items DVD players, phone sets, stationary items, and kitchen accessories, the difference between the prices of China made and their substitute non-Chinese products is found statistically insignificant and it can be concluded that  $H_5$  is not supported for these items. These items are highlighted in Table 4.

**Table 4**  
**Test Statistic, Wilcoxon Signed Ranks Test**  
**Entries represent Wilcoxon Signed Ranks Statistics**  
**and p values**

which chinese product did you purchase recently	price of non-chinese product - price of chinese product
electric shavers	-2.201 <sup>a</sup> .028
Headphone radios	-3.106 <sup>a</sup> .002
<b>DVD players</b>	-1.854 <sup>a</sup> .064
<b>Phone sets</b>	-1.683 <sup>a</sup> .092
Mobile phones	-6.157 <sup>a</sup> .000
Wall clocks	-2.366 <sup>a</sup> .018
Calculators	-2.785 <sup>a</sup> .005
Shirts (Male)	-2.666 <sup>a</sup> .008
Shoes (Male)	-3.170 <sup>a</sup> .002
Flash Lights	-2.524 <sup>a</sup> .012
<b>Stationary Items</b>	-0.674 <sup>a</sup> .500
<b>Kitchen Accessories</b>	-0.932 <sup>a</sup> .351

a. Based on negative ranks



## 9. PARETO ANALYSIS:

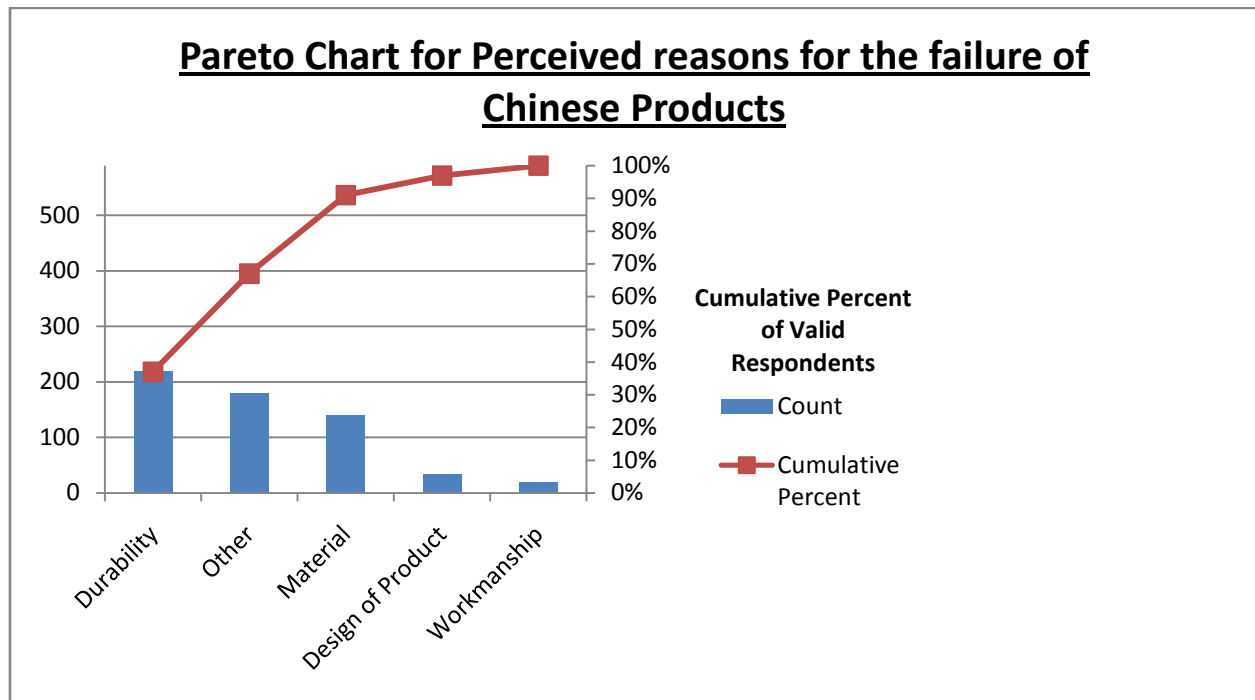
Pareto analysis is used to assess question 17, that focuses on the reasons for perceiving the Chinese and non-Chinese products differently. In this research the Pareto analysis is based on the information from question 17. It identified the three main reasons for which Chinese products are perceived as low graded.

1. Durability (Count-218)

2. Other (Count-179)

3. Material (Count-140)

### Pareto Chart



The Pareto analysis indicates that there is 90% contribution of these three reasoning in building the perception about failing of Chinese products. It is suggested that the Chinese manufacturers should consider these reasoning in their quality improvement program in order to improve the perception among the consumers about the quality of their products.

## 10. Diagrammatical comparison of Chinese and non-Chinese products

**Table 5(a)**

**How do you feel about the quality of any similar non-Chinese product you experienced earlier?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Poor	2	.7	.7	.7
Average	8	3.0	3.0	3.7
Fair	46	17.0	17.0	20.7
Good	154	56.8	56.8	77.5
Excellent	61	22.5	22.5	100.0
Total	271	100.0	100.0	

**Table 5(b)**

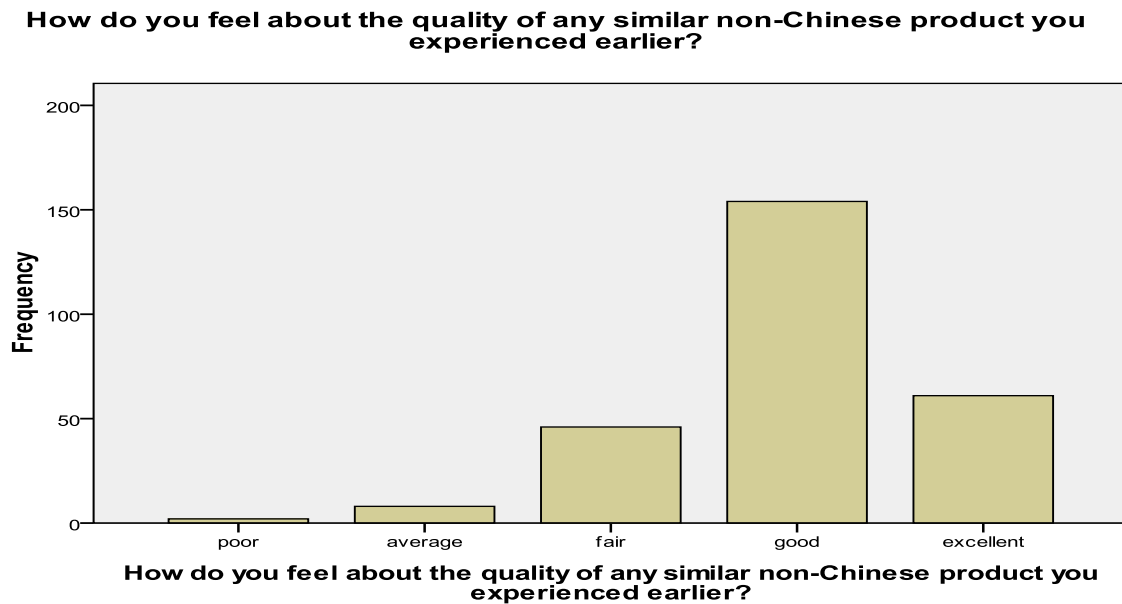
**How do you feel about the quality of Chinese product you experienced earlier?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Poor	9	3.3	3.3	3.3
Average	39	14.4	14.4	17.7
Fair	146	53.9	53.9	71.6
Good	72	26.6	26.6	98.2
Excellent	5	1.8	1.8	100.0
Total	271	100.0	100.0	

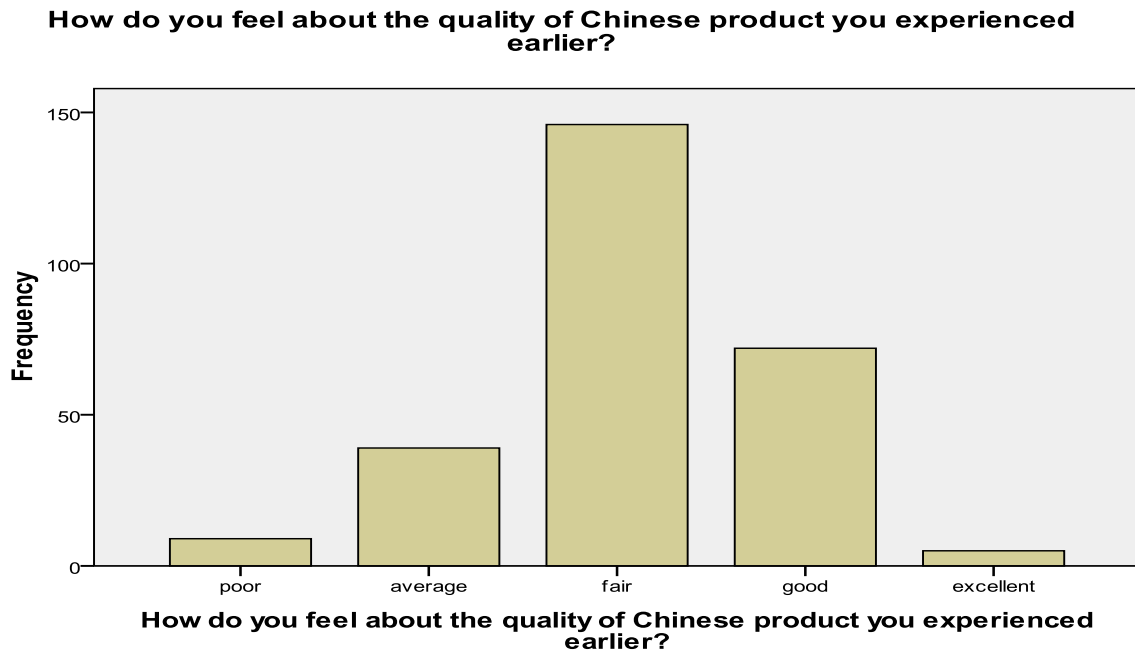
By comparing the percentage of perception about the quality of Chinese and non-Chinese products in the tables 5(a) and 5(b) , it is found that 53.9% consumers of Chinese products have rated the Chinese products as Fair where as 56.8% consumers have rated the Non-Chinese products as Good

By comparing the Figures 3(a) and 3(b), it can be observed that the diagram for perception about the quality of non-Chinese products shows negative skewness which indicates that consumers perceived non-Chinese products of better quality as compare to Chinese products.

**Fig 3 (a)**



**Fig 3(b)**



## 11. CONCLUSION

This research is based on consumer survey where price and product durability has been used as measures to assess the perceived quality of Chinese and non-Chinese products. This research supports H1 and H4 therefore it may be concluded that the average price of Chinese products is significantly less than the average price of non-Chinese products while same is true for perception regarding quality of Chinese and non-Chinese products. However we did not find any significance difference between the average perceived life and average perceived value of Chinese products and non-Chinese products. Although Chinese products are dominating in the markets all over the world but Chinese manufacturer have to pay attention to improve the quality of their products in order to maintain this domination. Product quality is an aspect in which Chinese Products are lacking as consumers perceived the non-Chinese products as of better quality as compared to the Chinese products.

## **12. LIMITATIONS**

Every survey may contain several biases arising due to various sources and may affect the analysis as well as the outcomes of the study. Following are the limitations of this research:

The observations about price and durability of the products in this research are related to the memory of the respondent. One can remember the origin of the product but it is very difficult to remember the actual price of the product and the month of useful life of the product in the result bias arises in the observations. But this biasedness is reduced due the fact that this source of errors is for both types of products that is Chinese products as well as non-Chinese products.

The data have been collected through on line survey which also limits the findings this research to those who have access to that technology.

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## 14. APPENDIX

### Appendix 1

Following are the questions related to this study. A list of items is attached here.

1.	Age:(271)	_____ Years
2.	Gender: (271)	Male / Female
3.	Marital Status: (271)	Single / Married
4.	Have you purchased recently and used an item made in China in the last four years? (If you answered <b>yes</b> proceed to the next question) (271)	Yes/No
5.	Which Chinese products you purchase during last four years?( Check all that apply) (271)	
6.	Which Chinese product did you purchase and used (write the item from the list attached, also circle it in the list) (271)	_____
7.	Considering the price and the length of useful life of the Chinese made product, how would you rate the value of this product from what you might have expected from using the similar product in the past? (271)	1 I feel cheated 2 Poor value 3 Fine value 4 Good value 5 Great value
8.	Roughly, how much did you spend on this Chinese product? (271)	Rs. _____
9.	Roughly what was its useful life? (Specify in nearest months) (271)	_____ months
10.	How many months of useful life did you expect from this product? (Specify in nearest months) (271)	_____ months
11.	Did you compare prices with other similar items at the time of your purchase of the Chinese product? (271)	Yes/No
12.	Roughly what was the price of a similar item that you did not purchase? (271)	Rs. _____
13.	What was the country of origin for the similar item which you did not purchase? (271)	_____
14.	How do you feel about the quality of any similar non-Chinese product you used earlier? (271)	1 Bad 2 Poor 3 Average 4 Good 5 Excellent
15.	How do you feel about the quality of Chinese product you used earlier? (271)	1 Bad 2 Poor 3 Average 4 Good 5 Excellent
16.	How much did you spend on this Chinese product you identified in question no. 11? (271)	Rs. _____
17.	If you have to guess why your Chinese product failed which one of the following is your guess?( Mark all that applies) (271)	Workmanship Material Design of a product Durability Other
18.	Is there anything you would like to comment concerning products made in China? (271)	_____

## Appendix 2

Product Categories	Product Groups	Product Categories	Product Groups	Product Categories	Product Groups
A. Lawn Furniture	1 Chairs	C. Clothes and Fabric Products	26 Shirts (Male)	F. Sport Items	53 Jogging Machines Exercise Equipments
	2 Tables and chair set		27 Pants (Male)		54 Weighing machines
	3 BBQ pits (portable)		28 Pants (Female)		55 Footballs
	4 BBQ pits parts		29 Shoes (Male)		56 Balls
	5 Pots		30 Shoes (Female) Swimming		57 Gloves
	6 Hanging Pots		31 Clothes		58 Pads
B. Small appliances	7 Electric Shavers	D. Hardware Items	32 Athletic Clothes	G. Misc. Items	59 Bands
	8 Hair Dryers		33 Sweaters (Male)		60 Rackets
	9 Electric Hair clippers		34 Sweaters (Female)		61 Badminton rackets
	10 Countertop radios		35 Screw Drivers		62 Basket Balls
	11 Headphone radios	36 Pliers	63 Table Tennis Table		
	12 CD players	37 Hammers	64 Table tennis rackets		
	13 DVD players	38 Flash Lights	65 Exercise mats		
	14 Phone sets	39 Light Switches	67 Paper Shredder		
	15 Mobile phones	40 Scissors	68 Weighing Machines		
	16 Electric drills	E. Lawn / Garden Tools	41 Hedge Trimmers	69 Desk Lamps	
	17 Electric saws		42 Garden Pipes	70 Home Floor Mats	
	18 Electric fans		43 Lawn mower	71 Non electrical toys	
	19 Wall clocks		44 Spades	72 Office Chairs	
	20 Desk clocks		45 Small bypass lopper	73 Travel Cases	
	21 Electric food mixers		46 Large bypass lopper	74 Stationary Items	
	22 Calculators		47 Hoe	75 Suitcases	
	23 Watches		48 Pitch Fork	76 Traveling Bags	
	24 Air conditioners		49 Rake	77 Kitchen Accessories	
	25 Microwave oven		50 Pruning shears		
			51 Irrigation Sprinklers		
			52 Planters		

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