Validating the Retail Service Quality Instrument in Jalandhar district (Punjab) at Grocery Specialty Stores

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ABSTRACT

Retailing in India is developing at a very rapid pace. Majority of the retail market is still untapped, and is key factor for global retail giants to make inroads. Formats of shopping malls is becoming attractive for global retail players. Most of the retail giants rapidly adopted the culture of shopping malls in large cities. The shopping malls aim at attracting the customers, in order to provide great buying experience to the customers.

Retailers have to provide quality services from entry to exit of the customer. The term service quality become widely used and implemented in all the sectors especially when service is a top priority. Retail is one arena where business carried out mostly depends on customer experience and satisfaction level. The proportion of organized grocery stores is 5% and it is expected to grow at a compounded annual growth rate of more than 25% with a prediction of Rs 37 lacs crores by 2020.

There is greater opportunity in Indian grocery retailing to exploit the market, therefore providing the best service quality to customers becomes a challenge to retailers. The study gives an overview regarding the service quality and provides a relook at validation and reexamination of retail service quality scale given by Dabholkar et al. (1996) in the context of the Indian rural setup especially in grocery stores.

The sample consists of 100 respondents from two grocery stores of Jalandhar district of Punjab. A questionnaire on 5 point Likert scale was used. The findings obtained by using reliability test, confirmatory factor analysis and
Structural equation modeling are that this Scale (RSQS) can be validated in the Rural Indian Context of Retail stores of groceries. The implication of retail service quality scale has been discussed.

Keywords: Retailing, Service Quality, Grocery stores, Retail Service Quality Scale (RSQS), Scale validation, Jalandhar.

INTRODUCTION

Retailing in the world is the largest contributor to the GDP of around 8% and it also employs one sixth of the labor force of the world (Steven Greenhouse 2012). The Retail segment of India is presently among top five quickest developing markets all over the world and by 2015 it is going to touch Rs 37 lack crores (Anand Dikshit 2011). The greater part over largely developed and changed due to the presence of retail industries, India is no different from the rest and is considered to be the most emerging markets in retail. It has now become the 2nd largest contributor to our GDF nest to agriculture (Mohammad Amin 2007). According to a survey conducted by the business consultancy: India’s retail market is expected to touch Rs 37 lacs corers by 2020 at a compounded annual growth rate of more than 25%. But the grocery retail has not emerged fully and about only 5% are under organized retail, (fnbnews 2013) but with the starting of big retail chains it is being organized at a very fast pace. The nature of services differs in different categories of services. In grocery retailing maintaining quality as per the expectations of the consumers is very complex because the people are very conscious about their diet and health. So there arises a need for an instrument which can measure the service quality of grocery stores. So the application of retail service quality scale in measuring the gap between the customers’ expectations and their perceptions about the service quality of retail stores in jalandher city of Punjab, India.

SERVQUAL

Widely popular scale SERVQUAL was developed by PARASURAMAN et al (1988) to evaluate service quality. According to the developers of SERVQUAL, service quality is measured from a comparison between customer expectation and customer perception. The difference which we get from perceptions and expectations results in the service quality gap ($Q = P-E$), also known as gap 5. A wide gap explains the poor service quality and shows that the service provider needs to improve on the service offered to its customers. PARASURAMAN ET AL (1988) study also suggested that five dimensions, namely, tangible, reliability, assurance, responsiveness and empathy influence service quality perceptions.
RSQS (Retail Service Quality Scale)

Another scale used in our study is RSQS (retail service quality scale) that was developed by DABHOLKAR ET AL (1996). According to Dabholkar et al. (1996) retail service quality had a chain of factor structure which comprised of five basic dimensions: - Physical aspects, Reliability, Personal interaction, Problem solving, Policy.

LITERATURE REVIEW

Service quality involves a comparison of customers’ expectation with customer perception. So, they have developed a scale called “SERVQUAL” to measure the service quality, including five dimensions: Reliability, Responsiveness, Assurance and Empathy and Tangibles (Parasuraman et al. 1988). The service quality in retailing differs from other service or product environments; so a scale was developed to measure retail service quality by Dabholakar, Thrope and Rentz (1996) and coined the name ‘Retail Service Quality Scale-RSQS’ which has a five dimensional structure (Physical aspects, Reliability, Personal interaction, Problem solving and Policy) they have also identified in their extended study that all these five dimensions were valid in the USA Gagliano and Hathcote 1994). The RSQS was then applied to the Indian Retail setting with a sample of 144 apparel retail customers selected in Bangalore. The observation was that only four dimensions were valid in the USA Gagliano and Hathcote 1994). The RSQS was then applied to the Indian Retail setting with a sample of 144 apparel retail customers selected in Bangalore. The observation was that only four dimensions were valid in the USA Gagliano and Hathcote 1994).
explore new dimensions of retail service quality scale. So it is evident from the earlier studies that there was no generic scale to measure service quality in Indian Retailing (Subhashini Kaul, 2005). SERVQUAL has not been successfully adapted and validated in a retail store environment. Based on extensive literature review and findings from their study, they have developed a scale entitled Retail Service Quality Scale that includes 5 dimensions. They are namely Physical Aspects, Reliability, Personal Interaction, Problem Solving and Policy. It is considered as a good scale to be applied to retail business that offer a different mix of service and goods, such as departmental or specialty stores. (Dabholkar et al. 1996). In another study five items designed to measure the scale, the Policy dimension was found to be unreliable in two countries. Personal interaction and Problem solving were combined into a single dimension named Personal attention. Measurement equivalence also did not exist across the US and Korean samples. So RSQS could not be viewed as a reliable and valid measure for cross-cultural comparisons (Kim and Jin (2001). The service quality on Retail stores have a place in the service industry, which offer a mix of goods and service, thus retail product management not only have the common characters of good quality but also have the special characters of services quality. This paper mainly focused on two quality scales of the retailers: SERVQUAL and RSQS, the first is prevailing in universal business service management and the latter is developed specifically for retail stores. The applying situations and the limitations of the two scales are also concluded respectively (WANG Shucui 2003). The other conceptual paper identifies the service quality dimensions critical to urban grocery shoppers for small, medium, and large-sized grocery stores. It will identify the critical quality dimension of Malaysia urban grocery shoppers based on the Retail Service Quality Scale by Dabholkar et al., (1996) that takes into account the retail setting. (Nor Khalidah Abu 2004)

SCOPE OF THE STUDY

This study has set out to validate the Retail Service Quality Scale developed by Dabholkar et al. (1996) in the Indian business setting. If proven valid and reliable the Retail Service Quality Scale (RSQS) may be further used by researchers and academicians in Indian business setting and particularly in Grocery stores. A large number of upcoming organized retail stores can also use the instrument in enhancing their service quality levels.

Objectives

• The main aim of this study is to look at validation of the retail service quality instrument in rural Indian business setting specifically in context of Grocery stores in Jalandhar district of Punjab.
• To re-examine the RSQS with reference to Grocery retail in Jalandhar district of Punjab.

RESEARCH METHODOLOGY

The study is descriptive in nature and is based on both the secondary data and primary data. The secondary data was collected from books, journals, periodicals, websites
etc. and the primary data was collected from a sample of 100 respondents from two national retail chains i.e ‘Reliance Fresh’ and ‘Easy Day present in Jalandhar Punjab. The two national retail stores were selected because of their maximum number of outlets in Jalandhar. The purposive sampling technique was used to collect the data from respondents. The population of the study consisted of consumers who visited these two stores regularly. The present study is based on Respondents, divided equally among selected stores, were surveyed by using a Retail Service Quality Scale (RSQS) and measure the validity and reliability of RSQS dimensions (Physical Aspects, Personal Interaction, Problem Solving, Policy and Reliability). Confirmatory Factor Analysis (CFA) using AMOS 18.0 was used to test the retail service quality scale factor structure.

ANALYSIS AND DISCUSSION

Structural equation modeling using AMOS18.0 has used to test the retail service quality model. Confirmatory factor analysis has been performed on the five basic dimensions of retail service quality scale and the following results are obtained. In order to measure the validation of retail service quality measurement instrument in Indian stores context first of all reliability of the collected data has been checked.

A. RELIABILITY AND VALIDITY RESULTS

1. Reliability Analysis

“Reliability is the tendency of a respondent to respond in the same or in a similar manner to an identical or a near identical question (Burns & Bush, 1999).”

“The internal consistency reliability is used to assess the reliability of a summated scale by which several items are summed to form a total score (Malhotra, 2004).”

The basic approach to measure the internal consistency reliability is split-half technique. In this technique; the items are divided into equivalent groups. This division is done on the basis of some predefined aspects as odd versus even number questions in the questionnaire or split of items randomly. After division, responses on items are correlated. High correlation coefficient indicates high internal consistency, and low correlation coefficient indicates low internal consistency.

Internal reliability of the scale was examined using the Cronbach Alpha coefficients. The results (Table1) indicate that the retail service quality scale proposed by Dabholkar, Thorpe andrentz (1996) is a reliable instrument, returning an overall cronbach alpha of 0.92. Taking 0.7 and above as indicator of reliability (Nunnally, 1978), we see that all under lying sub- dimensions/dimensions are reliable except the convenience sub- dimension pertaining to Physical aspects dimension of Service quality (alpha=0.63).

An in-depth interview of some shoppers was used to pre-test the instrument. These shoppers were selected because they had visited these stores, at least two times in the last
three months and had spent a significantly large amount on shopping during such store visits. The interviews indicated a need to modify the item on ‘complaint behavior’ to be used for measuring discriminant validity. This item was modified to include in formal crubs made to friends and relatives because formal Complaints at the store were few even if the shoppers had problems with the store service. During these interviews and based on the suggestions of the two store managers, explanations were added for some items to avoid any chance of ambiguity. AppendixII gives a list of all RSQS items used in the final instrument. The instrument also contained a final section collecting data on gender, age and profession of the respondent.

Table1: The RSQS Scale and Reliability Results

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Alpha Reliability</th>
<th>Sub-Dimensions</th>
<th>Alpha Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Aspects (6 items)</td>
<td>.917</td>
<td>1.1 Appearance(4)</td>
<td>.888</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 Convenience(2)</td>
<td>.817</td>
</tr>
<tr>
<td>Reliability (5 items)</td>
<td>.856</td>
<td>2.1 Promises(2)</td>
<td>.835</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2 Doing-it-right(3)</td>
<td>.756</td>
</tr>
<tr>
<td>Personal interaction (8 items, 1 deleted)</td>
<td>.923</td>
<td>3.1 Inspiring Confidence(3)</td>
<td>.861</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 Courteousness/ Helpfulness(5)</td>
<td>.894</td>
</tr>
<tr>
<td>Problem Solving (3 items)</td>
<td>.866</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Policy (4 items, 1 deleted)</td>
<td>.498</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Overall scale (26 Items)</td>
<td>.950</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

SPSS RELIABILITY ANALYSIS OF EACH DIMENSION

As given in the above table the value of Chronbach’s alpha in case of physical aspects is .917, which means this dimension is reliable for measuring the retail service quality. Similarly, personal interaction and problem solving shows the values as .923 and .866 respectively, which are also highly reliable for the service quality of grocery retail stores. Whereas reliability, as a dimension of the scale shows the value of .856 along with policy which is .498 which means customers are not very much rely on these two dimensions specially the dimension of Policy of Grocery retail stores.

The above statistics show the Cronbach’s alpha’s value that is .950 of overall scale which indicates very good results of the study means it indicates that the data collected for measuring the validity of the RSQS scale in Indian grocery store context is highly reliable. However, two items/sub dimensions, namely ‘telephonic interaction with customers’ and ‘store own credit cards’, as they are not suitable in the Indian context in comparison of another dimension.
2. Validity Analysis

Validity is the extent to which a test measures what it claims to measure. It is vital for a test to be valid in order for the results to be accurately applied and interpreted. Validity isn’t determined by a single statistic, but by a body of research that demonstrates the relationship between the test and the behavior it is intended to measure. These are:-

I. Content Validity

When a test has content validity, the items on the test represent the entire range of possible items, the test should cover. Individual test questions may be drawn from a large pool of items that cover a broad range of topics. In some instances, where a test measures a trait that is difficult to define, an expert judge may rate each items’ relevance. Because each judge is basing their rating on opinion, two independent judges rate the test separately. Items that are rated as strongly relevant by both judges will be included in the final test, so, two items / sub dimensions, namely ‘telephonic interaction with customers’ and ‘store own credit cards’, as they are not suitable in the Indian context in comparison of other dimension.

An improvement in the process used in this study was that in addition to our analysis, two other sources were used to examine the face validity of the items: independent expert faculty members with extensive academic and consulting experience in Indian retailing and store managers of the Grocery specialty stores (Easy Day &Reliance Fresh).

II. Construct Validity

A test has construct validity if it demonstrates an association between the test scores and the prediction of a theoretical trait. Intelligence tests are one example of measurement instruments that should have construct validity.
B. FIT STATISTICS

The goodness of fit of a statistical model describes how well it fits a set of observations. Measures of goodness of fit typically summarize the discrepancy between observed values and the values expected under the model in question Table 2.

Analysis

**Goodness of Fit model Index** a measure indicating how well a specified model reproduces the covariance matrix among the indicator variables. These are some results as follow:-

**Chi-square** is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. A value below 2 is preferred but between 2 and 5 is considered acceptable. Here we can say that our value is acceptable because our chi-Square is 4.208.

The **GFI**, an absolute fit index, is .961. This value is above the .90 guideline for this model. Higher values indicate better fit.

<table>
<thead>
<tr>
<th>Goodness-of-fit-Model index</th>
<th>Recommended Value</th>
<th>RSQS Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square/degree of freedom**</td>
<td>≤2.00</td>
<td>7.040/5= 1.408</td>
</tr>
<tr>
<td>Goodness-of-fit Index</td>
<td>≥ 0.90</td>
<td>0.961</td>
</tr>
<tr>
<td>Adjusted Goodness-of-fit index (AGFI)</td>
<td>≥ 0.90</td>
<td>0.984</td>
</tr>
<tr>
<td>Normalized fit Index (NFI)</td>
<td>≥ 0.90</td>
<td>0.963</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>≥ 0.90</td>
<td>.943</td>
</tr>
<tr>
<td>Comparative fit Index (CFI)</td>
<td>≥ 0.90</td>
<td>.971</td>
</tr>
<tr>
<td>Root mean square Error of approximation (RMSEA)</td>
<td>≤ 0.08</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**RMSEA**– Root Mean Squared Error of Approximation a value of 0.10 or less is considered acceptable. And it represents the degree to which lack of fit is due to misspecification of the model tested versus being due to sampling error.

The **AGFI** (adjusted goodness of fit index) takes into account the degrees of freedom available for testing the model. It is given by

\[ AGFI = 1 - (1 - GFI) \left( \frac{d_2}{d} \right) \]
The AGFI is bounded above by one, which indicates a perfect fit. It is not, however, bounded below by zero, as the GFI is. CFI represents the improvement of fit of the specified model over a base line model in which all variables are constrained to be uncorrelated. Our value is 0.971 which is good because it should be >0.90.

FINDINGS

• The two dimensions ‘telephonic interaction with customers’ and ‘store own credit cards’ are not valid in the context of Indian Retail (Grocery) market or stores.
• The main finding is that this Scale (RSQS) can be validated in the Indian Context Retail stores as results are favorable
• The Indian consumer does not distinguish between service attributes related to Reliability and Policy. An examination of the items indicates that the items in both dimensions have a common characteristic
• The RSQS scale shows good convergent and predictive validity as well as an acceptable level of reliability in the Indian retail setting. Though, the discriminant validity of the scale could not be established, these findings indicate that the RSQS can be used to assess overall service quality in grocery retail stores.

RECOMMENDATIONS

• A large number of upcoming organized retail stores can also use the instrument in enhancing their service quality levels. Being proven valid and reliable the Retail Service Quality Scale (RSQS) may be further used by researchers and academicians in Indian business setting and particularly in grocery retailing.
• The customers in Indian business setting are not yet accustomed with the credit card usage or do not find it as a safe option for payment.

CONCLUSIONS AND IMPLICATIONS FOR RETAILERS

The RSQS validity and reliability in the Indian retail setting indicate that the RSQS can be used to assess the overall service levels provided by the store and for tracking changes in overall service levels over a period of time. But RSQS would help identify only three service areas for focus; a relatively clear dimension of ‘Physical aspects’, a slightly hazy ‘Problem solving’ area and one confusing generic dimension of ‘Store Policy’. Even the six
sub-dimensions are highly collinear not just within the same dimension but even across different dimensions adding to the haziness of dimensions. This severely restricts the usefulness of the scale as a diagnostic tool for providing strategic direction. Retailers wanting greater clarity in identifying areas for service improvement will be disappointed with the RSQS hazy dimensions.

Retailers and researchers applying multi-dimensional service quality scales developed internationally, such as the RSQS in the Indian context are advised to pay special attention to scale adaptation to ensure that the scale has reliable diagnostic ability. International retailers planning a foray into India would require careful re-thinking before applying their existing perspectives on service quality gained in other countries to Indian shoppers.

REFERENCES