
*Measurement of E-Shopping through Service Recovery (SR)
on Electronic Appliances-A Study in Select Cities in India*

**Thesis submitted to the University of Hyderabad in partial fulfilment of the
requirement for the award of the degree of**

**DOCTOR OF PHILOSOPHY
IN MANAGEMENT**

by

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ACRONYMS AND ABBREVIATIONS

Sl. No	Acronym	Abbreviation
1	E-Services	Electronic Services
2	E-Quality	Electronic Quality
3	SQ	Service Quality
4	SERVQUAL	Service Quality
5	SITE QUAL	Site Quality
6	WEB QUAL	Website Quality
7	e-Tail Qual	Electronic Tail Quality
8	E-S-Qual	Electronic Service Quality
9	E-RecS-Qual	Electronic Recovery Service Quality
10	eTransQual	Electronic Transaction Quality
11	P-e-SQ	Perceptual Evaluation of Speech Quality
12	e-SELFQUAL	Electronic Self Quality
13	WOM	Word of Mouth
14	SRP	Service Recovery Performance
15	SEM	Structural Equation Modelling
16	EFA	Exploratory Factor Analysis
17	CFA	Confirmatory Factor Analysis
18	NWOM	Negative Word of Mouth
19	SFR	Service Failure Recovery
20	TAM	Technology Acceptance Model
21	OFD	Online Food Delivery
22	OCR	Optical Character Recognition
23	SR	Service Recovery
24	ORSF	Outcome Related Service Failure
25	PRSF	Process Related Service Failure
26	CS	Customer Satisfaction
27	CL	Customer Loyalty
28	CI	Corporate Image
29	SFM	Service Failure Measurement
30	SRS	Service Recovery Strategy

31	IOT	Internet of Things
32	CEO	Chief Executive Officer
33	GMV	Gross Merchandise Value
34	USD	United States Dollar
35	AMOS	Analysis of a Moment Structure
36	KMO	Kaiser-Meyer-Olkin
37	DF	Degrees of Freedom
38	RSP	Responsiveness
39	CNT	Contact
40	CMS	Compensation
41	AVE	Average Variance Extracted
42	CR	Composit Reliability
43	MSV	Maximum Shared Variences
44	ASV	Avarage Shared Variences
45	GFI	Goodness of fit index
46	CFI	Comparative fit index
47	NFI	Normed fit index
48	RMSEA	Root mean square error of approximation
49	AGFI	Adjusted goodness of fit
50	RFI	Relative fit index
51	EFT	Effort
52	CTY	Courtesy
53	APG	Apology
54	FLP	Follow up
55	SRP	Speed of response
56	PMS	Poblem Solving
57	EPN	Explanation
58	FAT	Facilittion
59	PSQ	Percieved service quality
60	PSV	Percieved Service value
61	SF	Service Failure
62	CR	Customer Recover

63	PR	Process Recovery
64	BI	Brand Image
65	MD	Managing Director
66	CEO	Chief Executive Officer
67	GDP	Gross Domestic Product
68	SMEs	Small and medium enterprises
69	C-2-C	Customer to customer
70	E-2-E	Employee to employee
71	DJ	Distributive Justice
72	PJ	Perceived Justice
73	SEM	Structural Equation Modelling
74	SM	Structural Modelling
75	CV	Customer Value
76	SP	Service Performance
77	E-SF	Electronic Service Failure
78	PWOM	Positive Word of Mouth
79	PQ	Product Quality
80	E-Loyalty	Electronic Loyalty
81	E-Tail	Electronic Tail
82	E-Recovery	Electronic Recovery
83	SPSS	Statistical Package for the Social Sciences
84	PCA	Principal Component Analysis
85	RCM	Rotated Component Matrix
86	CV	Convergent Validity
87	DV	Discriminant Validity
88	CUS	Customer Satisfaction
89	CSL	Customer Loyalty
90	PRF	Process Failure
91	CPI	Corporate Image

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CHAPTER-I

1.0 Introduction

The continuously growing competition and increased expectations & demands have resulted in consumer gratification & associated factor to become the key focus of the study in services (Kandampully, 1998) and (Chumpitaz & Paparoidamis, 2004). To surmount this aggressive competition; each organization is focusing on improving efficiency, and CL to build a lasting relationship with their consumers without compromise in the quality of service (Raj G. Javalgi & Moberg, 1997). Superior quality will result in higher consumer retention which leads to higher profitability (Reichheld & Sasser, 1990). As services heterogeneous produced simultaneously service without any defects is not possible (Grönroos, 2001).

1.1 Indian online shopping

Buyer express trust rejection that represents advanced complex operational problems (Kandulapati & Shekhar Bellamkonda, 2014). it is necessary to handle a number of related problems like customers PSQ, PSV and satisfaction with e-shops (Kandulapati & Shekhar Bellamkonda, 2014). However, To capture the Indian online trade, Most of the online companies are taking proactive steps by adopting modern approaches such as setting up the vertical integration of own retail chains. It becomes vital to many organizations PSQ on consumers with e-stores. In order to compute SQ of online stores the study conducted by Kandulapati and Shekhar Bellamkonda (2014), validated the E-S-QUAL tool the SQ of e-stores in India.

As there exists an enormous move from traditional & physical shopping experience to store experience, online stores are looking forward to adopt the quality strategy by enhancing the use of internet for best online shopping experience (Sharma, 2009).

1.2 Key trends in the online shopping sector

Swati Bhargava is the Co-founder of CashKaro.com- Cashback & Coupons site. 2019 revealed that every year, there are a few trends that shape India's e-commerce industry. Experts are pegging this ever-expanding space at \$ 4.88 trillion by 2020. India (2018).

1.2.1 Experiential Marketing

Swati Bhargava revealed that “experiential marketing is a significant way to bridge that to fill the gap. Over 55% of buyer's still visit stores before they make purchases online says a lot about the potential of experiential marketing. To creating seamless, Omni channel experiences isn't an all-new thing”.

Experiential Marketing

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1.2.2 Niche e-commerce verticals

Despite e-commerce players like Flipkart and Amazon relish 75% market share, online mostly operate as vertical players. Though these vertical players are tapping on the unique consumer needs wherein people are scouting for the more customized shopping experience. However, to survive the ruthless landscape of online shopping, such niche retailers would need to focus on CL and shopping experience. Indian e-commerce part is await to hit somewhere around the US \$ 120 billion in 2020. The industry is fatten at a hire of 51 % on an annual basis, and the growth of the Indian e-commerce will overall ride on these trends. Though the positively exciting Indian e-commerce. E-commerce ancillaries such as logistics, inventory management, vendor management, among others, will now become indispensable.

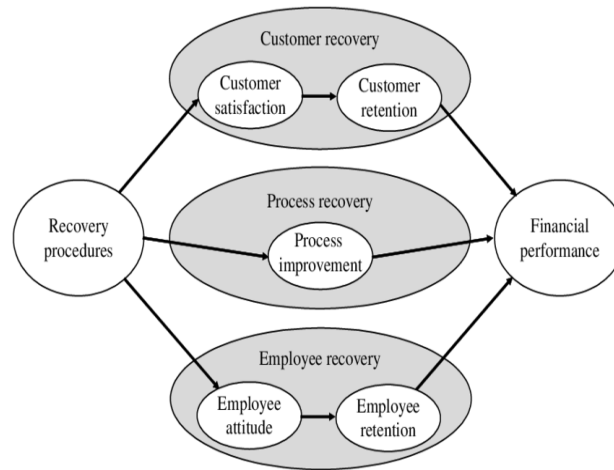
1.3 Service Recovery

Service recovery is sparked from the SF encounter to the service or product supplier. SF was unavoidable inside to the company, especially in an online transaction. It is because the different consumer will have different needs and requirements. Therefore, an online retailer must implement relevant action to recover dissatisfied consumer so that able to comfort them, solve their problems, and earn loyalty from them (Rajendran, Wahab, Ling, & Yun, 2018).

1.4 Types of Service Recovery

There are three types of recovery procedures. They are customer recovery, process recovery, and employee recovery. The given figure 1.1 shows again customer recovery divided into two parts- CS and CR; PR contains process improvement, and employee recovery divided into two parts-employee attitudes and employee retention. These three types of recovery ultimately lead to financial performance.

Figure1.1 Types of Service Recovery



1.5 Service Recovery - The Indian context

In the Indian context, E-RecSQUAL an online Service recovery scale called which was developed by (Parasuraman, Zeithaml, & Malhotra, 2005) is found to be reliable & valid scale for measuring online SR.

The study by Kandulapati and Shekhar Bellamkonda (2014) found that CS has a full mediating effect between the SR and BI but brand image has a partial mediating effect between the CS and service recovery. The study also found that E SQ has a great impact on PSV but has no relevant impact on CS. However, PSV has a substantial impact on CS due to the mediating effect of PSV. This study is in Indian context so the level of CS and SQ of online stores is high in India when compared to the whole experience of shoppers.

1.5.1 Road Ahead

Rajesh Jain, MD & CEO at Lacoste India (Sports And Leisure Apparel Ltd.), May 2018 mentioned that “The demonetization affect slowed down business as the chain of stores across the country had taken hit but with the Indian customer’s growing interest for global brands and quality shopping experience, brands commitment to the Indian market remains high and overall market continues to be positive”.

1.5.2 India got first rank in the Global Retail Development Index

The author mentioned “Backed by the second largest population, rapid urbanization, growth of e-commerce, rising middle class and rapidly growing consumer spending capacity, the Indian retail industry has emerged as the world’s fifth-largest global destination in the retail space and has been ranked first in the Global Retail.

Rajesh Jain denotes that to reports, it accounts for over 10% of the country’s Gross Domestic Product (GDP) and around 8 % of the employment”. “Indian retail market is said to be the world’s third largest consumer economy reaching US\$ 400 billion in consumption by 2025”.

1.5.3 Operational Definitions of Service Recovery Quality

Service recovery is the process of recovering failures that are encounter because of service usage. (Smith, Bolton, & Wagner, 1999).

Customer Service Recovery: customer recovery is to execute and to satisfy who are facing problems on bought of shopping products and service treat promptly to the employee. May improve relations with that client. (Michel, Bowen, & Johnston, 2009).

1.6 Relevance of Research

The impact of globalization and liberalization, the improvement of information and communication and technology brings the market to the consumer's fingertips. The Internet has penetrated our lives without being noticed and became a vital tool for Consumers, even for business. Consumers collect the information, compare prices and Make purchases anytime, anywhere (Nasir, 2004).

Consumers began to search for their needs to more quickly than before, and their expectations increased in these conditions. Socialization over the internet become widespread all over the world, the consumption society takes an excellent chance to share their shopping experiences and Spread their opinions, even good or bad, through the electronic shopping sites.

Though social media platforms such as Facebook, Twitter, and Friend feed, etc., there are also electronic complaining sites that enable consumers to share shopping experience. Dissatisfy shopping experience to make consumers complain, to spread negative word-of-mouth, switch the retailer and even go away from (Blodgett, Hill, & Tax, 1997; Pavlou & Gefen, 2005; Tax, Brown, & Chandrashekar, 1998). Therefore SFs are considered as an essential was vital for online retailers to maintain CS and loyalty to critical factors for a company's profitable (Tax et al., 1998).

1.7 Aim of the Research

Service recovery refers to the way organisations react when consumers complain about a service defect. This can be done in both online or offline setting. The responses and compensations differ from company to company. For companies to survive and progress, it is essential to let consumers complain when they encounter a service defect. "Service recovery is also accepted as an crucial factor for gaining CL" (Brown &

Hepworth, 2000). Service recovery is also affected by the increased use of internet. Consumers prefer new online services but online SFs affect the offline buying behaviour of the consumers (Piercy & Archer-Brown, 2014). As there is an enormous increase in online service channels and expansion of offline and online service channels, there is a need to examine the complaining behaviour of the consumers about online versus offline service.

1.8 Theoretical Justification of the study

The study by Ayertey, Ozuem, and Appiah (2018) revealed that the complaining is effortless when compared to the effectiveness of internet and to disseminate the audience as per geographical segmentation, internet can be reached easily. When compared to offline shopping experience, internet is preferred for easier switching because customers have the choice to look for different suppliers without any obstacles. So it is crucial to study and understand how to manage the failures caused by online service which will guide the firms which are functioning in domain of online shopping. A number of researches has targeted in finding the reactions of customer to SF and the recovery mechanisms adopted by the firms to address the SF.

The advantage of the internet is that it offers customers to complain about the SF in different formats in mean time. So addressing SF will help the organizations to gain competitive advantage in the prevailing market conditions in Indian context.

1.9 Statement of the problem in shopping sites

Following are the most common problems faced by the customers (Mittal, 2017).

- Quality problems
- Delivery
- Electronic payment failures

- Extra charges
- Uncertain return & guarantee policies
- Security problems

1.10 Purpose

The main purpose of this study to analyze SQ and SF since failure increasing day by day due to Indian online shopping culture. Compared to western countries online services failure is seen more in India. Reasons could be delivery issues, damage of products, systems problems, payment failure problems, late delivery, quality issues, and security problems are facing in Indian online shopping. In spite of the technological developments in the twenty-first century, customers still facing service recovery problems. In order to serve the customer better, companies are leveraging the usage of drone technology to deliver the products, internet of things and artificial intelligence are used rectify service recovery problems, (Sousa & Voss, 2009).

1.11 Selection of shopping sites

("Digital Retail in 2020: Rewriting the Rules," 2016). These sites offer improved consumer convenience by providing big deals and offers. Customers prefer to buy online owing to busy schedule and doorstep delivery and cash on delivery is mostly preferred. In India, the popular online shopping sites are Flipkart and Amazon, and offline shopping are Bajaj electronics, (G., 2018).

1.11.1 Flipkart

Based on research the given electronic shopping sites have chosen because of the online rating reviews is day by day increased. So that the Indian online shopping's sites like flip kart, amazon and offline shopping Bajaj electronics. (mouthshut.com, 2019) review revealed that most of customers complain to SF online shopping those are

- Times late delivery and then I have to cancelled
- Cheat by Flipkart..!! Poor Service.
- They show fake products in their website
- Most of Time Flip kart miss the delivery Date
- Bad work
- Disappointing!

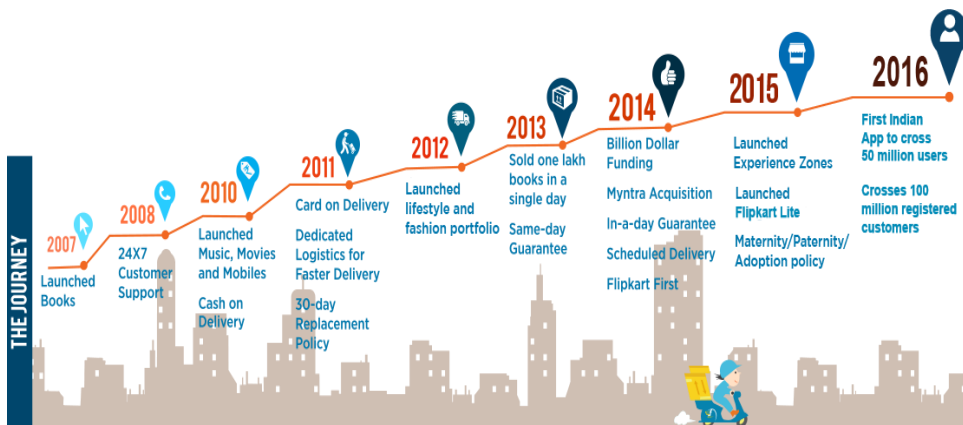
Figure 1.2 Flipkart Classification of Products



Figure 1.3 Flipkart Market Expansion



Figure 1.4 Flipkart Growth Rate



Here the figure 1.2 shows different type of categories of product available information shown on their flip kart website, 1.3 figure shows the technology that enables 8 million shipments by monthly 100 million registered users 100 sellers 10 million daily page visitors and 21 state of the craft warehouses. Figure 1.4 shows flip kart online shopping journey from 2007 to 2016, shopping accessories, availability of product information expand their business and consumer buying information in online shopping sites.

1.11.2 Amazon

Amazon India enables SMEs to build a rich consumer base through a variety of programs. This results in higher revenues, reach and output. Amazon's central business policies add up to a better nation (sitejabber, 2019). Reviewed the given statements of site jabber .com. the customer's opinion about the amazon online shopping SR. So based on the review statements to chosen this study on shopping environment (amazon.com, 2019).

- Day delivery became 2 week or whatever delivery
- Not Safe!
- Not good not bad but gets the job done
- Can't deliver a package on time
- Amazon began to work badly
- Amazon delivery and customer service fails again

CHAPTER-II

2.0 Literature Review

This chapter reviews recent research pertaining to SF and recovery process. Several conceptual and empirical research studies were examined to know how SR affects CS, loyalty, and CI. This section deliver to designing theoretical framework & formulation of the hypothesis to be examined. This chapter has been divided into four sections. Section 2.1 reviews studies related to CS with SR and their post-recovery behaviour. Section 2.2 reviews the studies related to CS and behavioral intentions. Section 2.3 reviews the studies about non-complainants behavior. Section 2.4 outlines the studies related severity of failure and recovery paradox.

2.1 Definitions of services

From the past to the present generation, it has been challenging to define services for all academic circles because of their diversity. It is often hard to grasp how services are created and delivered to customers because many inputs and outputs are intangible (Lovelock, Wirtz, Keh, & Lu, 2002). Hence to understand the meaning of the service concept it is a must to clarify different definitions. Alexander (1960) defined services as “Activities, benefits, and satisfaction, which are offered for sale are provided in connection with the sale of goods”. Lovelock et al. (2002) defined “services as economic activities which create value and provide benefits for customers at specific times and places as a result of bringing about the desired change on behalf of the recipient of the service”.

As Patton (1987) explained: “services include all economic activities whose output is not a physical product is generally consumed at the time it was produced and provides

added value in forms.” Also Grönroos (2001) describes services as “an activity or series of events which are more or less intangible take place in interactions between the customer and service employees, which are provided as solutions to customer problems”.

According to Kotler (1994) “service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product”. Furthermore Zeithaml, Berry, and Parasuraman (1996) give a limitation to the definition of service by stating that “service is all economic activities whose output is not a physical product or a construction is generally consumed at the time it is produced and provides added value in forms (such as convenience amusement comfort or health)”.

Gummesson (1995) revealed the “consumers do not buy goods or services but rather Purchase offerings that render services which create value. He uses the amount instead of solutions to customer problems”. Gummesson (1995) emphasizes “what the service does for the customer and what the customer buys which may be interpreted as a customer perspective on services and the service concept”. Gustafsson, Nilsson, and Johnson (2003) suggests that “the service organization should create a seamless system of linked activities that solve customer problems or provides unique experiences this view highlights the customers perspective as it includes a system of linked activities which Supports the customer in solving problems”.

2.1.1 Quality

Juran and Godfrey (1999) argued that “quality can be viewed fitness for use, which implies that a product is appropriate to fulfil the consumer needs”. And Juran iterated five dimensions out of *quality of design & quality of conformance*.

According to Deming and Edwards (1982) explained “the Quality can be viewed as a top management priority to improve products and services continuously for fulfilling the requirements of customers’ needs and stay ahead of the competition”.

The idiom quality can also be viewed as a measure of excellence and it has been used to measure the excellence of products and services (Madu & Madu, 2002).

2.1.2 Parameters

The 8 factors of quality postulated by Garvin (1987) has applied well in measuring the quality of products but not services the attributes of services vary C-2-C and E-2-E. The complicated to normalize. (**The 8 parameters are mentioned Annexures**)

2.1.3 Elements of Electronic SQ

Internet has become an essential part of our daily lives, the importance of Measuring electronic SQ has risen. There exist many studies for developing measurement scales for electronic SQ. Annexures Table shows that the list of studies on electronic SQ, including the context for research and the dimensions of electronic SQ.

2.1.4 Service Quality

As per Ghosh (2018) “The Indian e-commerce industry is still in its developing stage and is emerging”. From a managerial perspective, by arranging high levels of e-SQ is extremely critical and important to succeed in the todays e-commerce space. So, a clear comprehending of customer tastes and preferences for shopping website usage is required.

Zeithaml et al. (1996) reviewed a theoretical model of the impact of SQ on particular behaviours that indicates whether customers remain loyal to a company. The relationship from the model regarding customers' behavioural intentions shows strong proof of their being influenced by SQ (Zeithaml et al., 1996).

The definitions to the elements of SR for online services defined by Parasuraman et al. (2005) are mentioned earlier. They developed a scale of 4 elements for ESQ (electronic SQ) and 3 dimensions for E-Res-Ser-Qual electronic recovery SQ scale.

Responsiveness: handle of Effective trouble and comeback through the online site. The service contributor gives a token tangible item to make up for the SF (SF) buyers may feel obliged to change their level of gratitude. Service enterprises that are great at problem intention that are accessible to respond with responsiveness, more likely to rebuild the broken done (Hocutt, Bowers, & Todd Donovan, 2006).

Compensation: The degree to which the shopping site compensates customers' problems. Compensate giving by the customer some benefits to balance the adverse to cause by the SF (Boshoff, 1999). The amount for the SF by offering the following services given discounts to customers' affection to the service supplier (Ennew & Schoefer, 2003). The author pointed that the real benefits of who are facing SF problems on providing compensatory treats to the consumer depends on the facing problems on company side or else shopping site (Johnston & Michel, 2008).

Contact: availability of support through telephone agents. Through this "investigation of focus group interviews and an online observations for consumer perspective" (Wolfenbarger & Gilly, 2002).

2.2 Service Recovery

SR was sparked from failure encounter by the service or product supplier. SF is unavoidable in every company especially in an online transaction. It is because the different consumer will have different needs and requirements. Therefore, an online retailer must implement relevant action to recover dissatisfied consumer so that able to comfort them solve their problems and earn loyalty from them (Rajendran et al., 2018). (Smith & Bolton, 1998), developed a model of SR and examined how SF and recovery encounters influence customers overall assessment of service agency. Authors investigated extent to customers prior total satisfaction before SF and recovery encounters carry over to influence their subsequent complete satisfaction. They also investigated whether SR paradox exists or not that is whether a good recovery will reveal an increased level of satisfaction that would not have been attained if they had not experienced SF. It encounter can have a substantial impact on clients happiness with a company and recovery efforts will have more impact on customers patronage intentions than cumulative satisfaction. It was also found that increasing satisfaction & repatronage. SF and recovery encounter for a number of clients so SF should not be observed as opportunities to influence customers as it involves risks. The authors conducted experimental studies in two service settings restaurants & hotels. The research design operated the type of failure (outcome & process) the extent of failure (low & high) imputes (compensation, apology, initiation, and response speed). In the first study a sample of 375 undergraduate students was surveyed about their restaurant patronage and the second study included a probable sample of 220 business travelers who had stayed at 1 of the midrange hotels locations within previous three months.

Frazer Winsted (2000) identified service provider behaviors based on which consumers evaluate service encounters and how these behaviors are related to encounter satisfaction.

A behavior identification questionnaire was designed and used to identify individual behaviors relevant to the appraisal of service experience and CS in two organisations - restaurants & medical care. The author identified 137 behaviors which were analyzed through a questionnaire and the relationship of the level of each behavior with the service encounter satisfaction was examined. The service the provider should be competent, congenial, civilized and should be concerned with the Consumers.

(S. J. Bell & Luddington, 2006), the authors tested a imitation of customers complaints positive & negative employee affectivity & commitment to customer service. The authors proposed that service employee positive results related to employee responsibility to service. It was also proposed that the negative relation between customer objections & service employee engagement to customer Service will be decreased when employee positive affection was more. A study was conducted in national retail firms in a wide different of commodity.

Kau and Wan-Yiun Loh (2006) examined the outcomes of SR on customer fulfilment and the impact of happiness on behavioural outcomes of those customers who encountered SF (SF) and SR (SR). Authors also investigated through existence to SR paradox that is whether satisfactory recovery efforts will enhance the satisfaction of customers who complained about the SF than the satisfied customers with the service provider in the initial service contract. To inspect the effects of SR on CS a student survey was conducted for mobile phone Service industry using structural questionnaire. Findings of the study revealed that DJ (distributive justice) had strongest influence on satisfaction with SR which In turn, had a positive impact on trust, WOM, and CL. There was a lack of support for SR paradox which suggests that service donor should aim to provide error-free service at the first instance and should not depend on recovery efforts to cure SF.

Liao (2007) examined how employees' SR performance (SRP) affects CS with SR. The impact of customer PJ (perceived justice) on repurchase intentions were examined through the mediation of CS with SR. It was proposed that making an APG (apology), providing an EPN (explanation), being respectful and prompt handling of complaint affects CS with SR positively. Author also looked for the moderating effect of the severity of SF, repeated failures between employee SRP and satisfaction with SR. Two studies, one experimental and other laboratory were conducted to examine the outcome of employee SRP on CS with SR. Observations of the studies depicted explaining the SF may not be always taken positively by customers unless they believe that the factors responsible for SF was beyond the company's control.

Sajtos, Brodie, and Whittome (2010) explored the impact of SFs on customer-company relations and how these relations with an indirect effect on consumer value and loyalty with SFs. Sajtos et al. (2010) also compared the role of brand image and company trust among respondents who did not faced a SF and those who faced. The authors hypothesized that the severity of SF negatively affects customers' perceptions of BI, trust, value, and loyalty. It was hypothesized that a SF increases the impact of customers' perceptions of BI and trust and reduces the effect of BI on customer value and increases the impact of image on CL. Authors also hypothesized that a SF minimizes the impact of customers' perception of importance on CL. Authors collected data from non-business passengers of a popular an international airline out of which 211 had not experienced SF and 341 passengers had experienced SF.

Sajtos et al. (2010) applied SEM in two steps where in first (CFA) was used to evaluate and filter the model, and the SEM was estimated for 2 groups. The first group was the one which faced SF and the other who did not. The results of CFA showed an acceptable model-

fit indicators. Thought results of SM shown, for the customers who faced SF, the severity of SF has a significant negative impression on BI and trust. The company image also a significant impact on company trust, CV (customer value), and CL. The findings suggest, as SFs and recovery significantly affect customer-organisation relationships, focus on recovering the company's relational protective layer.

Hocutt et al. (2006) investigated consumer reactions to SR efforts to examine its impact on CS and WOM intentions. It was also proposed that satisfaction after a SF will be top of if any recovery effort is made than no effort was made. An experimental study of 2×2×2 factorial design was used in a restaurant setting with undergraduate marketing students.

Colgate and Norris (2001) proposed that when customers stay with the service provider they encountered a SF and did not complain. It was further suggested that there would be times when customers stay with a service provider when they opposed and had received excellent SR and also when they receive weak service. The authors conducted qualitative research for small business customers in the banking Industry to test these propositions. The authors questioned two different groups of customers the one who left the bank after SF and the other who remained with their bank after seriously considering leaving. Result of the study revealed that the bulk of the applicant who remained with service supplier were emotional about the SF and this led them to complain.

2.2.1 Severity of SF and SR Paradox

Webster and Sundaram (1998) examined the effects on various SF and recovery efforts on CS and loyalty across various levels of severity for different service companies. The authors investigated that type of recovery efforts such as an apology, compensation, will have a significant effect on CS and loyalty.

Hess Jr, Ganesan, and Klein (2003) investigated the impact of customers' relationship with the organization on SF and recovery encounter that is how to post relationships alter customers' reactions to SFs. The effect of a figure to past encounter with the organization, quality of past service experience, consumer expectations of relationship continuity and their attribution of stability and controllability was investigated on CS with SP (service performance) behind recovery. Hence the results was depicted that buyers who expect continuity of relationship, have lower service expectation, leads to high satisfaction with SR. and have favourable attributions about stability. It was also proven that customers who perceive failure as more severe have top SR expectations. The authors suggested that managers should know it constitutes adequate recovery expectations for their customers.

SR is defined as the action to a SP takes in feedback to a customer complaint (Van Vaerenbergh, Vermeir, & Larivière, 2013). The SR represents a critical moment of truth for an organization, as a dissatisfaction response to a customer complaint might lead to losing the complaining customer and a satisfactory SR has the potential to restore CS and repurchase intentions (Michel et al., 2009). To define significant work attention to this issue, and identify several possible responses to consumer complaints, SR framed as the companies attempts to provide a gain in the form of a recovery effort to make up for the customers lose (Smith et al., 1999).

2.2.2 E-services

E-SF and SR is a new area since the e-commerce and Internet gained to push in the late 1990s and early 2000s. customer expectations and Online services are different from traditional expectations (Hazarika, Gerlach, & Cunningham, 2018).

2.2.3 Electronic SF and recovery

Online retailers provide self-service channels such as websites and exclude the human interaction which is an essential part of traditional service experience (Forbes, Kelley, & Hoffman, 2005; Holloway & Beatty, 2003; Oliver & Swan, 1989). Besides the internet give consumers an opportunity to search information for investment opinion and to stake their satisfying or unsatisfying purchase experiences (Harrison-Walker, 2001). As is known at present, it is much easier for consumers to spread their opinions and experiences through online communal platforms like face book or twitter. Therefore it is a must to serve customers well and provide high SQ to market them loyalty, support PWOM over the Internet.

online merchandiser participate with their business partners to carry out The service transactions is more expected for consumers to be challenged by service problems on the Internet than in brick & mortar business (Harris, Mohr, & Bernhardt, 2006). SF would damage the CI established by online retailers and affect Customer evaluation of retailers (Tax et al., 1998). Consequently, an effective SFR policy valuable, online retailers maintain CS and loyalty which are the critical factors for a company's revenues and profitability (Tax & Brown, 1998).

SR gives a chance to service providers to keep their customers happy and increase CL and retention (Hart, Heskett, & Sasser, 1990).

However, a competent SR which encourages customers to complain and respond effectively will be an excellent chance for service organizations to win the dissatisfied customers back, enhances the organization's information about their shortages, and requirements to improve customer's satisfaction (Boroumand, Aghdasi, Albadvi, Jamshidian, & Perzon, 2012). In online SR literature, researchers stated that online retailing involves different types of SFs from traditional channels and needs to establish

appropriate recovery strategies for online SF (Forbes et al., 2005; Holloway & Beatty, 2003).

2.2.4 Online shopping experience

Online shopping reviews could be aim to inspire contribute to effort product brand report highlights. By doing so they will feature more balanced reviews that are likely to help buyers better mitigate decision risk (Mumuni, Lancendorfer, O'Reilly, & MacMillan, 2018).

H.-H. Chang and Wang (2007) recommended that “online stores should try to increase the benefits (such as good, services, and image value) and reduce the sacrifices (such as monetary, energy, time and psychic transaction costs)”.

The rapidly growth on shopping sellers was facing more sales favourable & challenging in the more competitive shopping environment. Retailers that could generate big customer cumulative ratings may experience high demand and profits, (Xu, Munson, & Zeng, 2017).

2.3 Service Recovery Strategy

Fox, Deitz, Royne, and Fox (2018) advised “the first empirical test the effect of emotional contamination in a user-generated content context, demonstrating that it can occur when consumers read such content, even if they did not experience the events being defined”.

The creation of generalizability of the recommendations for further study might examine other online SF contexts such as delay of the product to the customer, damaged of the product. In particular customers were asked to provide more information using the direct message option they were told the outcome would be replaced free of charges. Whether offering repayment online triggers optimistic behaviour from other consumers. how

organizations need to tailor their SR movements to the channel used represents an important role in service companies (Sengupta, Ray, Trendel, & Vaerenbergh, 2018).

SF was most basic form, SF can be defined as a situation in which a customer's expectations are not met by the standard of service delivery as perceived by the customer (Kelley, Hoffman, & Davis, 1993). The following outlines various other definitions of SF:

SF was defined as situations in which customer perceptions of the service fails to meet their expectations (Chuang, Cheng, Chang, & Yang, 2012).

Therefore, the latest definition itself proposes that there are two categories of service encounter failures which are outcome-oriented and process-oriented (Chuang et al., 2012; Keaveney, 1995; Zhu, Sivakumar, & Parasuraman, 2004).

SR contains those activities intended to resolve difficulties, alter negative attitudes of dissatisfied consumers and to retain these customers ultimately and Service providers should make every effort to provide the customer with a positive experience the first time (Miller, Craighead, & Karwan, 2000).

(Have mentioned main strategies of service recovery in Annexures)

2.3.1 Apology

C. R. Bell and Zemke (1990) reviewed apology was considered the first step in restoring of the customer from company side, who are faced SF, equity from a service providers view through accepting that the customer has been inconvenienced even if the service firm does not hold responsible the wrong doing. Though it refers to recognize the service firms authority for negative views & this inculcate some expression of remorse (Liao & Chuang, 2007). Employees or else a company apologize in addition to recognize that a failures has occurred (Ennew & Schoefer, 2003).

2.3.2 Explanation

Author mentioned that providing the details to customers refers to explaining the reasons for SF to clear and specific way (Conlon & Murray, 1996). some consumers may expressed as an vital statement of valuable and required outcomes and it may bring negative image to the company from those customers who believe that it is just an effort from the services to justify its SF while trying not to take the blame (Liao, 2007).

2.3.3 Follow-up

The author express that follow-up was aware of customers with the problems shopping sites and product related issues doing to resolve the complaints handle politely (Boshoff, Peelen, Hoogendoorn, & van der Kraan, 2005).

create customer happiness environment with the supplier efforts toward SF (Ennew & Schoefer, 2003).

Follow-up proper in managing CS as it let the service donor to collect information on the procedure to solve the customer problem (Johnston & Mehra, 2002).

2.3.4 Facilitation

Author reverse the action and tools that an organisation in place to treat fair and prompt, to create friendly environment handle buyer complaints in time (Davidow, 2000). In terms of facilitation has mounting expectations of SQ to low switching cost between service facilitator (del Río-Lanza, Vázquez-Casielles, & Díaz-Martín, 2009).

2.3.5 Speed of response/recovery

The approach stated that service contributor immediate response to SF (Liao, 2007). Quick answer was seen a valuable result from a consumer aspect late will show to customers the retailers guiltiness and they struggle to postpone the required actions (Conlon & Murray, 1996).

Boshoff (1999) define “time delays increase the customers negatively influences their perceptions of SQ”. It refers to speed of response to service supplier actions with a brave attempt to put things right to proper situation (Ennew & Schoefer, 2003). It is Better to keep the prospect than the communication with the dissatisfied customers after SF (Park & Park, 2016).

2.3.6 Courtesy

Courtesy denotes employee behaves that demonstrate politeness, respectful, courage, and self-control to treat the consumer (Liao & Chuang, 2007). It is a key factor in achieving CS (Davidow, 2000). The service giver who acts politely when handling a customers’ complaint further dissemination of the problem in the attention of the customer authorises this result by showing that concentration the reflection of courtesy, confidently correlate with CS in the framework of SR (Davidow, 2000).

2.3.7 Effort

Ahmad (2002) argued that the service represents to fix the problem are necessary but not satisfactory to success back customers. Customer problems need to be answer to

their satisfaction. This highlights to empower customer service operators with the ability to achieve results from the customer (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994). Employees struggle to identify the problem of the complainant is important in a service environment as it improves post-recovery satisfaction (Mattila & Patterson, 2004; B. Sparks & Bradley, 1996). when employees make an effective to handle the complaints the customer perceives this process as the fair interpersonal treatment (Karatepe, 2006).

2.3.8 Problem solving

In the context of this application means putting right what left incorrect (Karatepe, 2006). A telecom operator that extra charges the customer must repay the amount. solving the problem efforts to offer the customer with a gain that is equal to the loss produced by the SF (Levesque & McDougall, 2000). To increase CS opinion of the services (Bitner, 1990).

Customers feel that they did not get the deserved cooperation with the staff of the organization and feel it as a waste of time and the company procedures are not suitable for addressing the customer complaints (Liao, 2007).

Furthermore inappropriate PS causes customers to believe that the company did not treat them fairly thus raising their anxieties (Bitner, Booms, & Tetreault, 1990; Maxham III & Netemeyer, 2002).

2.4 Service Failure Measurement

SFM was divided two parts one is process failure and SF. “SF defined as service performance that falls below a customers expectations” (Hoffman & Bateson, 1997).

2.4.1 Process Failure

The outcome “elements of a service encounter involves what customers receive from the service, whereas the process element consists of how service donor” (Duffy, Miller, & Bexley, 2006; Weun, Beatty, & Jones, 2004). SF during SR in an outcome failure; the organization does not fulfil the basic service needs and perform the core services, including mistakes in specific range such as failure to get money from a mistake in billing. These are amongst primary reasons consumer swift service giver, (Keaveney, 1995; Susskind & Viccari, 2011).

While the SR process is internal to the customer, who is not interested in it as such. It is further argued that Outcome-Related SF (ORSF) is associated with an economic loss and Process-Related SF (PRSF) causes social or psychological damage for the customer (Smith & Bolton, 2002). Thus ORSF typically affect a functional exchange that includes amount in time, while PRSF connect symbolic transactions include status, esteem, respect, sympathy and empathy. The type of SF (outcome versus process failure) affects customer perceptions of the recovery evaluation. Therefore requirement of SR is a high level of communication between the provider and customer to deliver an convenient response to the dissatisfied customers (Mansori, Tyng, & Ismail, 2014). (B. A. Sparks & McColl-Kennedy, 2001), argue underlined the cite critical priority of employees in the provision of impressive SR. 100 percent satisfaction with guarantee promises entire consumer satisfaction, it signals that high-quality service will be delivered (Wirtz, Kum, & Sheang Lee, 2000). According to (McColl-Kennedy & Sparks, 2003), suggested that SF are common in the service industry and that customers may experience defection follow such failures, it is essential that firms try to recover dissatisfied customers through an pertinent set of actions the customer recover.

2.5 Customer Satisfaction

CS or dissatisfaction is a realistic judgment that consider both the qualities and benefits obtained through purchase the costs and efforts borne by a consumer to get that purchase (Iacobucci et al., 1995). Satisfaction with SR was functioning of negative affect create by initial SF, expectations of SR, PQ, disconfirmation of execrations and perceived fairness of the outcome of SR on equity (Wallin Andreassen, 2000).

CS was an essential determinant for the survival of an organization which is possible only by providing quality product or service (Cronin Jr and Taylor, 1992). It has a positive effect on CL intentions across a wide range of product & services (Fornell, 1992). Delight, disappointment (Oliver, 1999). Behavioural intentions (Smith and Bolton, 1998). And positive or negative word-of-mouth communications (Richins, 1983) have been model to understand loyalty and to predict firms.

CS represents consumers happiness with a product based on the distinction between the expected and recognized performance of the product (Kotler & Keller, 2012) and (Rai & Srivastava, 2012). Also explains that perception refers to the customers beliefs In terms of individual experience on service. Although justice theory has commanded most of the SF literature marketing researchers have found that expectancy disconfirmation further complement theory help to explain long-term interpretation of SR plan amongst Consumers (Smith & Bolton, 2002). It is suggested that favourable consumer behaviour typically presents as positive WOM, overt approval about organizations in the public forums and increased patronage. In contrast, unfavourable behaviour includes defecting/switching and reducing usage (Lai & Chou, 2015; Zeithaml et al., 1996).

Disconfirmation is used to determine the relationship between customer expectations and perceived performance. For instance, if perceived performance surpasses customer expectations, this produces positive disconfirmation, and if perceived performance fails

to live up to the expectations of the consumer, this can lead to negative disconfirmation (Hamer, 2006) and (Churchill Jr & Surprenant, 1982). Identified the following three elements from the disconfirmation model:

Expectation: it is assumed that consumers expect the performance of a good or service in the pre-purchase situation.

Performance: this is most often assessed after the customer has purchased the product/service, and is then compared to the customer's original expectation.

Disconfirmation: here, the customer evaluates whether the performance of the product or service has met the consumer expectations by comparing their original expectation with their post-purchase performance assessment.

The outcome of the disconfirmation stage results in one of the following conclusions and subsequent satisfaction levels (Barnes, Collier, Howe, & Douglas Hoffman, 2016)

- Positive confirmation: moderate CS is achieved of the service meeting to customer's assumptions.
- Negative disconfirmation: customer dissatisfaction occurs as a result of the service failing to meet the customers assumption.
- Positive disconfirmation: CS is achieved as a result of the product service exceeding customer's expectations, was initially negative.

2.6 Customer Loyalty (CL)

E-loyalty is defined as "customer's perceived intention to repeatedly visit the websites of e-tailers and to purchase from them shortly. To obtain the benefits of having online customers with high e-loyalty to gain a competitive advantage in a virtual world, e-tailers need to have a thorough understanding of the antecedents of e-loyalty from business and technological perspectives" (Lin, Chiu, Liu, Chen, & Hsiao, 2018).

Kamran-Disfani et al., (2017) suggested that maintaining CL was a crucial strategic goal for businesses as competition has intensified in almost all sectors of the economy. Retailers, in particular, feel that need to invest in CL more than ever before as channels and store format alternatives available for consumers to shop at have proliferated. As reaction best service provider have adequately improved their method. Though the CL was largely targeted on purchasing behaviour, the study struggles and freshly have adopted a immersive approach directing on customers hope, awareness, and mindset (Mason et al., 2006)

Loyalty has been a common area of study, particularly in the context of SF and SR for instance (De Matos & Rossi, 2008). A difference that has reached consent is that loyalty is above the repeated behaviour the only spurious loyal, not a correct one (Dick & Basu, 1994; JACOBY, 1978a, 1978b; Li & Green, 2011; Vasquez-Parraga & Alonso, 2000). CL factor has always attracted the attention of both academic & practitioner as a reaction, most service donors have radically replaced their approach (Kamran-Disfani, Mantrala, Izquierdo-Yusta, & Martínez-Ruiz, 2017).

2.7 Corporate Image (CI)

CI is viewed as corporate relations held by the customers (Ray et al., 2006). CI may be influenced by the activities and capabilities of interaction service personnel (Nguyen & Leblanc, 2002).

The CI relates to how customers perceive an organization based on experience and how these perceptions create a set of associations that contribute to a total picture of the organization (Andreassen, 2001) (p. 41), in terms of, for instance, the company's customer orientation.

2.8 Research Gap

- Very few studies are carried out in examining the role of CS link between SR and image of the dealer.
- Most of the studies focused on SR in online retail banking. However, very few studies researched consumer attitudes towards online shopping.
- Earlier research focused on organized and unorganized retailing and the role of trust, Motivational factors, website design, logistic towards online retailing, post purchased retailing, but they haven't studied online SR from an Indian context.
- Earlier studies focused on CS, image after the SR but haven't studied loyalty of the customer with respect to SR.

CHAPTER-III

Research methodology

3.1 The Concept

The chapter is divided into two sections – *Section one* deals with the proposed framework and defines the independent, dependent, and variables. Further, it provides theoretical support and operationalizes the variables. It also includes the research questions and the objectives. The appropriate hypothesis also inferred based on the conceptual framework.

Section two defines the research methodology adopted in the study. This section discusses the research design, sampling unit, sampling method, and geographical coverage. The inclusion and exclusion criteria, the respondents, and the sample size is explained in detail.

The chosen research methodology then dictates, to a large extent, the research methods for data collection and data analysis (Creswell, 2013; Denzin & Lincoln, 2008).

The chapter considers the critical paradigms of inquiry and describes the relationship between these paradigms and various research approaches. It underscores the importance of relationships between the researcher and the researched and reflects on how a reflexive exploration of paradigms of inquiry can benefit the study. It examines the methodological underpinnings and the rationale for using a grounded theory methodology. It also explores the relationship between the methodological approaches identified and the role of the researcher. The section then outlines the criteria for grounded theory research and the paradigm of inquiry adopted for the thesis.

The research methodology adopted for the study is presented in the current chapter. The present chapter contains the research design of the study, a description of the population identified for the research, and the sampling techniques used in the study. The rationale for arriving at the size of the sample, the method used for the collection of data and the

instrument (questionnaire) used in the survey was discussed. The section that deals with the questionnaire discuss the type of scale employed during the study. The procedure adopted to collect the data discussed in the present chapter. The statistical tools and techniques used in the research for the analysis of the data collected and presented in this chapter.

3.2 Research Questions

Research design describes the steps involved in obtaining the information needed. The descriptive part of the study comprised, a non-experimental survey on the exploration of the critical issues affecting CS of shopping in the Indian context.

This research is an empirical investigation of online SF and recovery Strategies in the Indian shopping sites. The central research question will seek to address the range of dissatisfactory experiences occurring in the online marketing culture by examining types of SF and by evaluating the effectiveness of recovery strategies that are currently employed today. It also explores consumer reactions to the SF.

There are several factors that a company should take into account while planning SR. the quickness of the response the quality of the reaction available channels and the chosen way to compensation. It is important for industries to know which of these factors they should prioritize and whether the expectations vary between online and offline customers in order to meet customers expectations. Thus, the first part of the research question is:

1. What are the critical demine SR regards consumers beliefs in shopping?
2. How the notions towards the payment difference between online and offline buyers?
3. How SR are willing to complain modern versus traditional shopping?
4. What are the SF experienced by customers in buying products in shopping?

5. What are the recovery patterns to address SF?
6. How SR success/failure influences CS and loyalty?
7. While SR success/failure influences the perceptions of customers towards the image of the retailer.

3.3 Research Objectives

The purpose of this study is to developing an understanding of how customers evaluate an online retailer's response to SFs as well as perceptions in SR, and how these affect the level of satisfaction and behavioural outcomes in the Indian online shopping electronic products. It seeks to develop an appropriate business model and methodological framework for delivering excellent SR to restore customer-firm relationships.

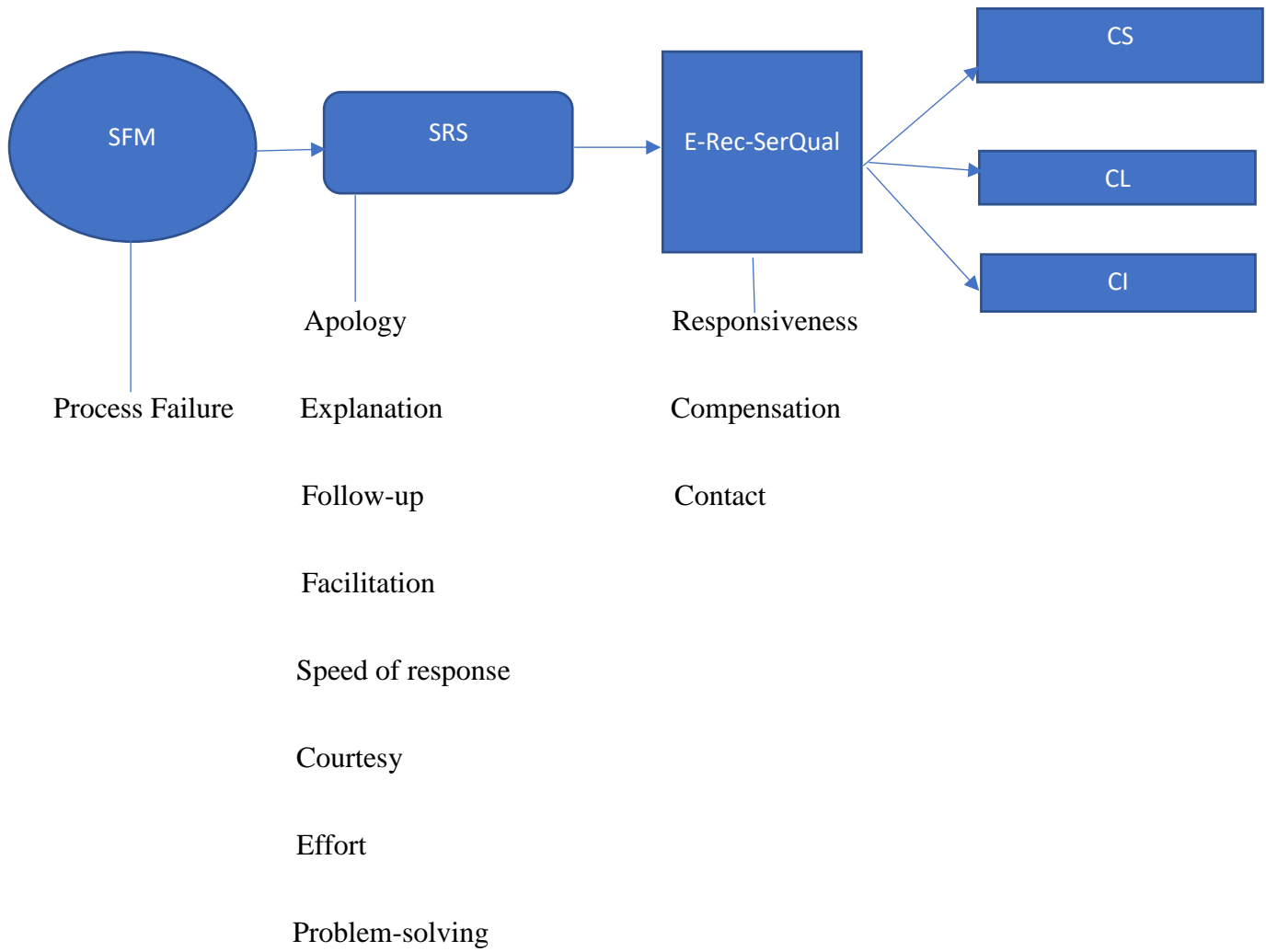
1. To Study the E-Rec-SQ of online & offline shopping electronic appliances
2. To examine effect of SRS (SRS) of electronic service appliances.
3. To validate SFM (SF management) as a mediating effect of CS, loyalty, and image of electronic appliances.
4. To study the factors influencing on E-Rec-SQ of CS, loyalty, and image of electronic appliances.
5. Proposed Structural model of SR to improve online and offline failures in electronic appliances of services.

3.4 Theoretical framework

Based on the study, the theoretical framework was developed on the primary (Miller et al., 2000), frame work model. Hence the conceptual model on SF management (SFM), related item Process Failure. SRS(SRS) items are an apology, Explanation, Follow-up, Facilitation, Speed of response, Courtesy Effort, and Problem solving-Rec-SQ items are

Responsiveness, Compensation and contact included the dependent variables are CS, CL, and CI

Figure 3.1 Theoretical Framework



3.5 Research Hypothesis

The given 3.5 table shows 8 hypothesis and 5 mediating hypothesis.

Table 3.1 Research Hypothesis

H:1	There is a positive relationship between CL and CI
H:2	There is a positive relationship between CS and CI
H:3	There is a positive relationship between CS and CL
H:4	There is a positive association between E-Recovery SQ and CI
H:5	There is a positive association between E-Recovery SQ and CL
H:6	There is a positive association between E-Recovery SQ and CS
H:7	There is a positive association between SF management & SRS
H:8	There is a positive association between SRS & E-Recovery SQ
H:9	To examine the mediation effect of CS in the interconnection between E-Recovery SQ and CL
H:10	To examine the mediation effect of CS in the interconnection between E-Recovery SQ and CI
H:11	To examine the mediation effect of CL in the interconnection between E-Recovery SQ and CI
H:12	To examine the mediation effect of CL in the relationship between CS and CI
H:13	To examine the mediation effect of E-Recovery SQ in the relationship between SRS and CS

3.6 Scope of the Study

SR is a procedure in all organizations and a important process in many firms. As such, a thorough understanding of this method was reasonable. Many descriptive studies are required to illustrate the service providers strategy for collective and uncommon faults. SF types will repeatedly seem inside an organization and that many companies have fixed plans of action that can be engaged when these failures arise.

Although it is evident that operational SR is carefully connected to CS, CL, and CI. The degree to which can be maintained and even increased by applying different techniques has not been systematically researched.

Researchers need to evaluate the mix of psychological and tangible components of SR and their relative impacts upon key outcome variables.

Delivery hurry is a planned priority that is accentuated by researchers in operations management. Speed would also appear to be a key variable to be examined in effective SR studies by(Hart et al., 1990).

There is a scope to conduct this study in Tire II Cities in India.

There is a scope to introduce Drone Technology to deliver the products who purchased the online shopping. This type of technology to utilize the products deliver in time and SQ and CS will improve.

Introduces and monitor the IOT (internet of things) platform to create the Indian shopping sites.

3.7 Pilot Study

Pilot studies are considered to be a pre-test to the survey (Baker, Grewal, & Parasuraman, 1994), which will help the researcher to identify redundancy in the design of the instrument

(Williams, 2007). Will enable the researcher to see if there are any ambiguities in understanding the statements and if the statements proposed in the survey instruments makes sense to the respondents (De Vaus, 2016). A Pilot study could be conducted either electronically (online) or personally meeting the respondents. The instrument developed consisted of three sections – the first section captured the demographic profile of the respondents, the second section consisted of the 80 items which were used to build SFM, SRS, E-RecSerqual, CS, CL, and CI. Thus the total number of items for the Pilot study consisted of 76 items. Out of the 80 questions in the pilot study, four questions were negatively stated. Hence the responses were recorded. The pilot study was conducted inconsistent with the recommendations of (Nunnally, 1978) and ensured that the respondents understand the statements.

3.8 Target of the Population

The target population comprised both online and offline shoppers. Target Population the Customers- those who have been actively involved in online shopping for the past one year as well as regular offline shopping in metropolitan cities, like(Hyderabad, Chennai, Bangalore, Delhi, Mumbai, and Kolkata) India.

3.8.1 Approachable Population

The approachable respondents is a portion of the target population, which rely on investigator's geography, time, or ethnic features (Warden, Wu, & Tsai, 2006). The approachable population of the study confined to shoppers available at various shopping malls at different metros cities in India. The shoppers who performed at least one online and one offline purchase during a month for the past one year from the period of data collection has been considered as the respondents who were qualified for taking part in the survey”.

3.9 Research Design

Research design describes the steps involved in finding the information needed to address the research questions. The research design of the current study is exploratory as well as descriptive in the nature. An exploratory research design helps in exploring a problem or a situation in order to provide a deeper understanding of the phenomenon. The descriptive part of the study comprised, a non-experimental survey on the exploration of the lead factors affecting consumer satisfaction of online and offline shopping in India.

This study evaluate factors influencing customer selection of shopping between an online and offline choice of shopping among Indian customers. Moreover, the study also tried to explore the moderating variables that affect customers' choice of online and offline shopping. Thus, the nature of the study is descriptive as well as exploratory. The main purpose of the exploratory research design is to determine the distinct characteristics of the study (Kothari & Armstrong, 2011). The research investigated and conceptualized the key dimensions of online and offline shopping factors. Lastly the research describes the state of preferences of shopping channels and factors affecting customer choice of shopping or customer preference of shopping between both the shopping channels.

3.10 Sampling method

The population size is considered as unknown. So It is not practical to implement random sampling technique due to absence of the entire online and traditional shopping customer data. Thus, the study adopted convenience sampling.

3.10.1 Sample Purification

Current study aims to collect data from across India. Convenience sampling is used in identifying the respondents of the study. The data collection is carried out across five

metropolitan cities in India – Hyderabad, Mumbai, Chennai, New Delhi, and Bangalore. The targeted sample size in each city is 200 totaling to 1000 respondents for the study. After the data tabulation and purification, the valid samples are Hyderabad (160), Mumbai (160), Chennai (160), New Delhi (160) and Bangalore (160) totaling to 800 respondents. The planned analysis involved dimension reduction through factor analysis. The data was collected into two parts to move the Exploratory Factor Analysis and Confirmatory Factor Analysis. The Structural model developed and tested.

3.10.2 Methods and Procedures of Data Collection

The study adopted offline survey methods for data gathering. The offline survey method was done across the main cities in India like (Hyderabad, Mumbai, Chennai, New Delhi, and Bangalore). grab sampling tools was adopted for the collection of data. The study carried out structured interviews with customers engaged in online and offline shopping from metropolitan cities like (Hyderabad, Mumbai, Chennai, New Delhi, and Bangalore) in India. The pilot study has been conducted in Hyderabad sample sort 200. Moreover, final study was done with a sample size of 1000, from the metropolitan cities (Hyderabad, Mumbai, Chennai, New Delhi, and Kolkata) of India. The researcher personally interviewed the respondents in the selected metro cities and collected data.

3.10.3 Sample Justification

According to Hair, Anderson, Babin, and Black (2010) “the size of the sample should be determine based on the number of attributes of the work and proposed there should be 5 themes for each aspect”. The research comprised of fifteen observed variables for online shopping and offline shopping. In both online and offline shopping categories, the final sample sizes were chosen to justify the sample size, thereby. Though valid sample classify of the scrutiny was 800.

3.10.4 Survey Instrument

The questionnaire (data collection instruments) was comprised E-Rec-SQ(E-Rec-Serqual) 11 items, SR failure management eight items, SRS 32 items and dependent variables CS 11 items, CL 6 items and CI eight items. All the elements were computed on Likert 5-point scale. The range of scale varied from 1 representing ‘strongly disagree’ to 5 representing ‘strongly agree; for 76 items of both online and offline shopping. For the questionnaire, the scale was developed by the researcher based on the literature review, discussions with customer focus groups, and considering the inputs from subject experts.

3.10.5 Data Analysis Methods

Statistical packages like MS Excel, and SPSS, version 21 were used for data analysis. “Analysis of a Moment Structure (Amos 21)” was used for Structural Equation Modelling. The methods of data analysis include descriptive statistics, exploratory and factor analysis, and structural equation modelling (SEM).

3.10.6 Descriptive Statistics

Descriptive statistics were used to examine respondents’ profile regarding demographics, usage of the internet, methods of payment, preference of shopping channel, frequency of online shopping. Descriptive central tendency and frequency distributions were calculated.

3.10.7 Exploratory Factor Analysis (EFA)

EFA attempts to bring inter-correlated variables together under more general, underlying variables. The key objective for element investigate to decrease the

dimensionality of the unique space and also provide for an elucidation of the new area (Thoo, Lai, Lee, Lee, & Lui, 2012).

3.10.8 Confirmatory Factor Analysis

CFA is used to examine the relationships between the latent variables and manifest variables (Byrne, 2016). A sample size of 800 was used for Confirmatory Factor Analysis to confirm the underlying factors of online and offline shopping and validated the both first order and second order. Confirmatory factor analysis was also used for validating the structural and conceptual models which includes the underlying constructs for online and offline shopping. The underlying constructs include website attribute information, the convenience of shopping, product quality, the price of the product, shopping services, product delivery, and customer attitudes towards online and offline shopping.

3.10.9 Structural Equation Modelling

SEM has 2 stages of testing the theoretical models where the first is measurement model which recognises the relationship between independent and dependent variables by Confirmatory Factor Analysis method. Second, the structural model examines the causal relationships among the stated constructs and relationship states either direct or indirect or both between one latent construct to the other dependent variables (Byrne, 2016). In this research, Structural Equation Modelling (SEM) was used to test the causal relationships among online and offline shopping CS, CL and CI of the SRS, SF management, and E-Rec-Serqual. Quality of products, online services, price of the product, convenience of shopping, website information, and product delivery.

3.11 Summary

This chapter provides the background to the broad topic examined in this thesis based on the previous literature. The chapter addresses vital gap in the field of SF and recovery phenomena and identifies key issues which have led to the initiation of this research. Background to the Indian online shopping electronic appliances is illustrated in this study. The next chapter describes the focus of the research & also provides the important of the study with the aims and objectives. Finally this chapter presents an overview of the subsequent chapters in the thesis to provide a big picture about previous and current research. Following this, the next chapter will critically review and discuss the literature that is relevant to this study.

CHAPTER-IV

4.1 Data Analysis

This section presents the results of structural relationships between SRS, E-recovery SQ, and CL in the presence of mediating variables CS and CI. The proposed model is verified using co-variance based SEM. This data analysis is done in three stages. In the first stage, exploratory analysis (EFA) is carried to capture the dimensionality of the E-recovery SQ construct, and confirmatory factor analysis is done to evaluate the final measures that assess E- recovery SQ. In the second stage to form the construct validity of SRS scale, exploratory factor analysis is performed.

Further, (CFA) is carried out to assess the factor structure of the SRS construct. In the third stage to establish the validity of process failure, CS, CI, and CL scales an exploratory factor analysis was performed. Further, a confirmatory factor analysis (CFA) is carried out to assess the factor structure of the constructs. In the fourth stage, the mediating effect of the variables, CS, and CI between the independent variable (E-Recovery SQ) and dependent variable (CL) are tested using Process Macro.

4.2 Demographic profiles

The sample consisted of 62.4 percent male and 37.6 percent female. Most of the respondents are in the age group of 21-30 (92.5 %), followed by 31-40 (7.5%). Majority of the respondents are postgraduates (50%) followed by graduates (43.8 %) and (6.2%) of them are Ph.D. degree holders. Most of the respondents are students, 72.5 %, followed by private employees, 12.5%, and unemployed respondents (12.5%) and (2.5%) of them are government employees. The data was collected from five metropolitan cities in India i-e Hyderabad, Chennai, Mumbai, Bangalore, and Delhi.

The descriptive characteristics of SR Payment failure such as delivery, delay Systems, failure, packaging, failure, Product damage were presented in the table below.

Table 4.1 Demographic Profile of the Respondents

Measures	Items	Frequency	Percentage
Occupation	Govt-Employee	20	2
	Private Employee	100	12.5
	Un-Employee	100	12.5
	Student	580	72.5
Place	Hyderabad	158	19.8
	Chennai	161	20.1
	Mumbai	160	20.0
	Bangalore	160	20.0
	Delhi	161	20.1
SF	Payment Failure	120	15.0
	Delivery delay	342	42.8
	Systems Failure	204	25.5
	Packaging Failure	129	16.1
	Product Damage	5	0.6

4.3 Exploratory Factor Analysis in E-Recovery SQ

Exploratory factor analysis is performed to determine which variables load under a particular factor. Factor analysis attempts to group a set of variables which explains a common variance that measures a specific construct. The objective of factor analysis is to decrease the dimensionality of the original data and to give an interpretation to the

new space covered by a compact number of new items which are supported to underlie the old ones (Rietveld, 1993). The principal component analysis and orthogonal (Varimax) rotation methods were employed to extract the factors and its latent variables.

4.3.1 Sample Adequacy

Sample adequacy was tested by Kaiser-Meyer-Olkin (KMO) value; this measure point out the fraction of deviation in variables which efficacy be because of basic elements. The index area from 0 to 1. The KMO value must exceed each variable above .80 and .50 for overall fit will be considered commendable (Joseph F. Hair, Black, Babin, & Anderson, 2010). It observed that the KMO value of this study is .85 (see table 4.2) hence, the sample is adequate. Apart from the sample adequacy test, the study also tested whether data is suitable to address the problem significance of the study, this can be found by Bartlett's test of sphericity. The value of Bartlett's test must be less than 0.05; in this study, the value is 0.00 (see Table 4.2) which indicates that the data is suitable for conducting factor analysis.

Table 4.2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855
	Approx. Chi-Square	4517.523
Bartlett's Test of Sphericity	Df	55
	Sig.	.000

4.3.2 Principal Component Analysis

By performing PCA, we can estimate the number of factors needed to represent variables of the construct. A latent root value is also known as eigenvalue. Varimax rotation was using to analysed with a construct loading of .5 or above. In order to control the initial number of constructs that are to be retained, criterion of an eigenvalue above 1 for each construct was considered. The scale consisting 11 pieces on three features, namely 1. Responsiveness 2.Contact, and 3. Compensation (see Table 4.3). The variance of percentage explained by these three constructs (Table 4.3) on scale is 72.87%. Reliability and validity are measured.

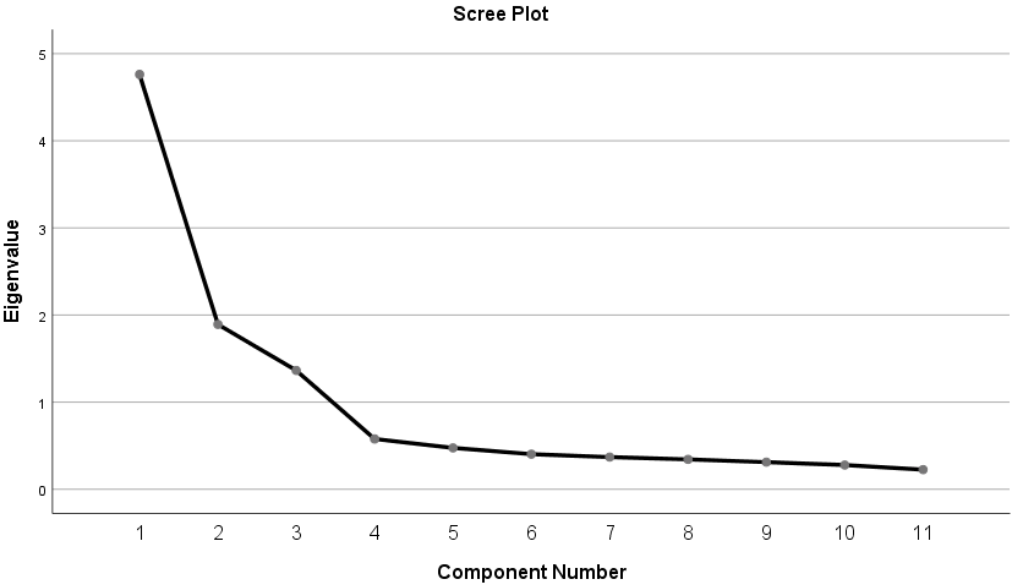
Table 4.3. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.761	43.279	43.279	4.761	43.279	43.279	3.584	32.577	32.577
2	1.891	17.193	60.472	1.891	17.193	60.472	2.280	20.724	53.301
3	1.364	12.402	72.874	1.364	12.402	72.874	2.153	19.573	72.874
4	.578	5.253	78.127						
5	.475	4.317	82.444						
6	.403	3.663	86.107						
7	.370	3.361	89.468						
8	.343	3.119	92.587						
9	.312	2.833	95.420						
10	.278	2.529	97.949						

11	.226	2.051	100.000							
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Extraction Method: Principal Component Analysis.

Graph 4.1 scree plot



4.3.3 Rotated Component Matrix

Hence the output of the RCM are given below table. Factor loading explains the correlation related item and the component values .50 higher are considered rationally notable. The items values higher than .50 were retained.

Table 4.4. Rotated component matrix

	Components		
	1	2	3
RSP3	.862		
RSP1	.832		
RSP5	.820		
RSP2	.819		
RSP4	.810		
CNT2		.869	
CNT1		.828	
CNT3		.822	
CMS1			.822
CMS2			.811
CMS3			.804

Extraction Method: PCA. Rotation Method: Varimax with Kaiser

Normalization. Rotation converged in 5 iterations

Reliability of E-Recovery SQ scale

4.3.4 Reliability

Cronbach's Alpha measures the internal consistency of the scale, the alpha values are most satisfactory for E-Recovery SQ (.79 < .90) beyond the normal threshold of .70.

Table 4.5. Reliability

Construct	Alpha Value
Responsiveness	0.904
Contact	0.839
Compensation	0.796

4.4 CFA in E-Rec-SQ

The association between factors and their latent variables can be assessed through confirmatory factor analysis. The items, drawn from the PCA, were subjected to CFA to evaluate the factor structure of E-Recovery SQ scale further. The CFA analysis is performed to confirm variables that measure a factor along with variance and co-variance characteristics. CFA is a structural equation modelling which consists of two models i.e measurement model and inner model. The outer model shows the relationship between constructs and the variables measuring these constructs, whereas the structural model specifies the path relationship of independent and dependent variables. The figure below shows the results of first-order CFA, the factor structure with three factors represented by medium-size circles, 11 observed variables represented by rectangles. The smaller circles represent the error terms.

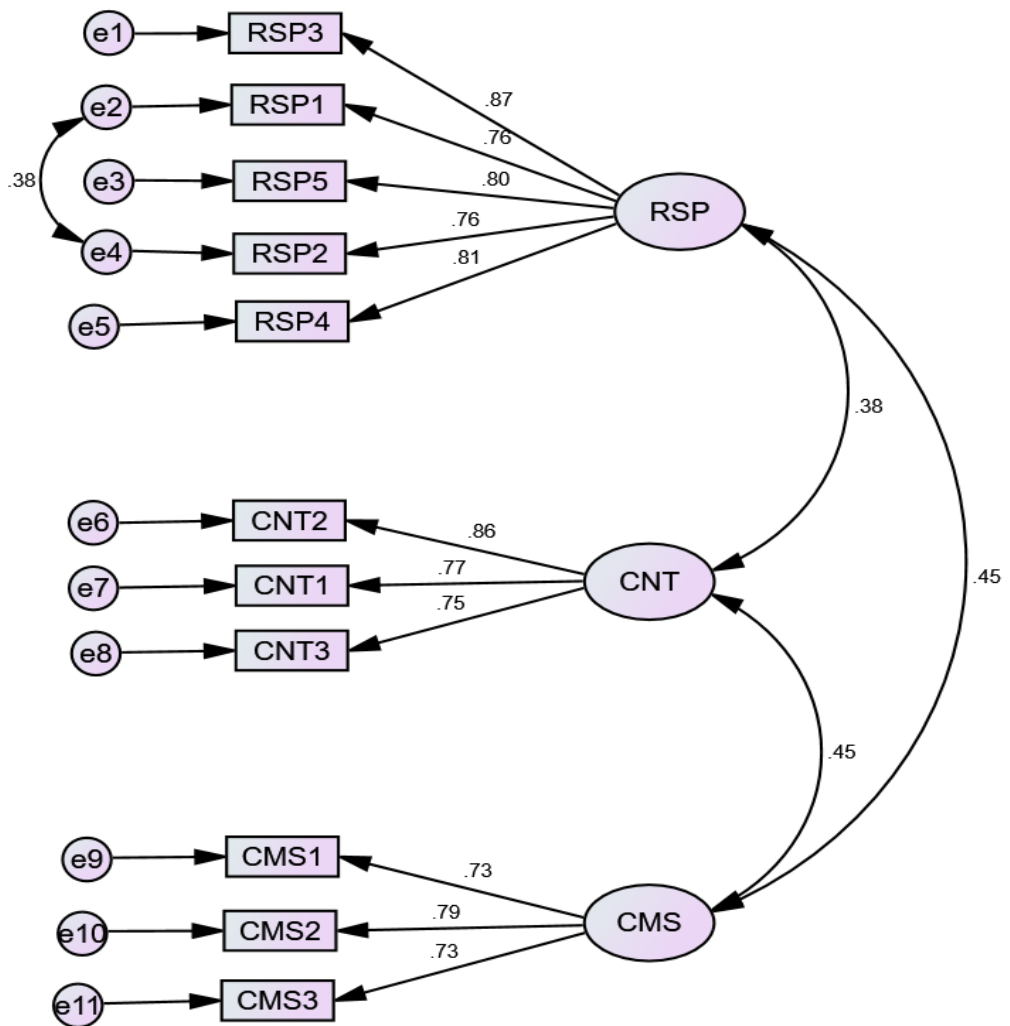
4.4.1 First Order Model of CFA

Proposed Structural model of SR to improve online and offline failures in electronic appliances of services are estimated in two stages. First, the measurement models are tested by conducting first order CFA; the first order CFA model has three factors with 11 variables which are correlated. Covariances between the construct represented with a single latent construct.

The measurement first order model was built using recommendations of Bryne (2010). To experiment the first order model, one of the essential criteria is to ensure that three factors are correlated.

The schematic representation of service measurement model recovery strategy shown Figure 4.1 below. The results of AMOS output shows the final factor structure with three factors represented by medium-categorized circles, and 11 detect variables represented by rectangles. The smaller circles represent the error terms. The three factors are 1. Responsiveness-RSP1, RSP2, RSP3, RSP4, RSP5, 2. Contact-CNT-1, CNT2, CNT3, and 3. Compensation-CMS1, CMS2, CMS3. The confirmatory factor analysis results showed that the constructs loadings are found to be between 0.56 and 0.90

Figure 4.2 CFA (E-Rec-Serqual) First Order



4.4.2 Reliability & Validity Assessment Model

Reliability of 1st order measurement model can be assessed through CR and validity by CV and, DV.

4.4.3 Reliability

CR is a more appropriate measure of reliability than Cronbach's alpha (Chin 2010). It assesses the indicator loadings to determine to construct scores. The composite reliability of the construct E-Recovery SQ items varies from 0.76 to 0.83, this values are greater than the required criteria 0.70 (Fornell & Larcker, 1981a). Alpha value and CR values indicate high internal consistency and reliability of the latent construct E-Recovery SQ and its dimensions.

4.4.4 Validity

Validity is measured by CV and DV. Whether components are measuring the same construct or not is measured by CV. Whether the construct is distinct from other constructs or not is assessed by DV.

4.4.4.1 Convergent Validity

Standardized factor loadings measure convergent validity and Average Variance Extracted (AVE). The standardized factor loadings should be above .70 (Hair, Celsi, Ortinau, & Bush, 2008). In this study, all the factor loadings are above .70. The AVE for actions must be greater than .50 (Fornell & Lacker, 1981), in this investigation AVE values of E-Recovery SQ dimensions ranged from .56 to .64. Thus it indicates that the constructs variables.

4.4.4.2 Discriminant Validity

DV specifies how distinct the construct is compared to other constructs. DV is calculated by comparing the square root of the AVE for each construct and it inter-construct correlations (Fornell & Larcker, 1981b). All the variance extracted values are higher than inter-construct correlations, indicating that each factor is distinctive.

4.4.4.3 Construct Validity

The e-Recovery construct reliability, convergent validity, discriminant validity hence the scale has construct validity (Hair et al., 2010).

Table 4.6. Measurement model - Reliability & Validity

Constructs	C.R	AVE	MSV	ASV
Responsiveness	0.76	0.641	0.20	0.18
Contact	0.83	0.627	0.20	0.18
Compensation	0.80	0.567	0.20	0.20

Table 4.7. Measurement Model: Discriminant Validity

	RSP	CNT	CMS
RSP	0.80		
CNT	0.377	0.79	
CMS	0.445	0.45	0.75

4.4.5 Model Fit

The study verified the goodness of fitness using the maximum likelihood evaluate method (Arbuckle, 2007) to execute the model. The table below shows the model fit benchmark used to assess the model. The value of GFI-Goodness of fit indices 0.95 is treated to be a good fit (Hair et al., 2010), here the GFI values 0.97 this model indicates that has a good fit. RMSEA the value of this model 0.051 the value from 0.05 to 0.08 is considered to be good. The value of CFI of the current model is 0.98, which is considered as a good fit indices, CFI value greater than 0.90 is considered as a good fit. The value of NFI should range from 0 to 1; for this

measurement model, the NFI value is 0.97, which can be considered as a good fit. All the model fit indices fall under accepted ranges with $\chi^2/df = 3.118$.

Table 4.8. Measurement Model Fit Indices

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.973	0.981	3.118	0.955	0.973	0.051	0.388

Table 4.9 Factor loading on Regression Weights and the significance of relationship between constructs

			Un standardize Estimates	Standardise Estimates	S.E.	P
RSP3	<-- -	RSP	1.000	.874		
RSP1	<-- -	RSP	.945	.759	.038	***
RSP5	<-- -	RSP	.950	.800	.035	***
RSP2	<-- -	RSP	.872	.760	.035	***
RSP4	<-- -	RSP	.945	.805	.034	***
CNT2	<-- -	CNT	1.000	.858		

CNT1	<-- -	CNT	.924	.766	.043	***
CNT3	<-- -	CNT	.862	.749	.041	***
CMS1	<-- -	CMS	1.000	.730		
CMS2	<-- -	CMS	1.084	.795	.059	***
CMS3	<-- -	CMS	1.010	.734	.057	***

4.5 CFA Second Order Model

CFA Second order measurement model consists of two levels of latent constructs. The model explains the second-order latent factors that cause various first order latent factors, which otherwise purpose the consistent variables (Hair et al., 2008). Three constructs confirmed from first order CFA model and one high order construct (E-Recovery SQ). Developed for the second order model to examine the hypothesis, E-Recovery SQ is multidimensional construct which is calculated by three dimensions i-e Responsiveness, Contact and Compensation, each dimension has a significant link with E-Recovery SQ (fig. 4.2). The results of second order measurement model show the reliable & valid for further analysis, (table 4.9). The construct reliability is (CR), and AVE is. All the model fit values: $\chi^2/df - 2.94$ CFI-0.981, GFI -0.973, NFI-0.973, RMSEA-0.051, AGFI-0.955 are within the acceptable limits. Each dimension has a significant ($p < .01$) positive association with E-Recovery SQ construct.

Fig. 4.3 CFA (E-Rec-SerQual) Second Order Model

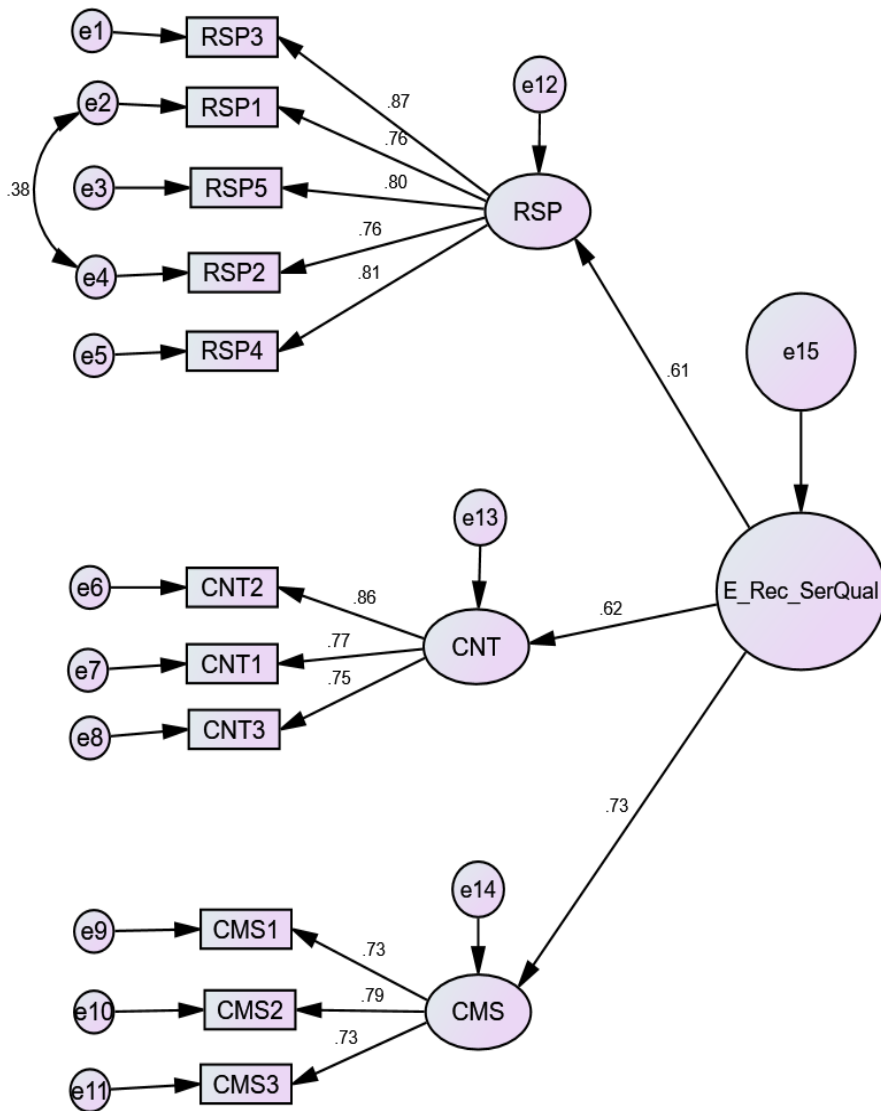


Table 4.10 Model Fit Indices

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.973	0.981	3.118	0.955	0.973	0.051	0.388

**Table 4.11 Factor loadings Regression Weights and the significance of relationship
between constructs**

			Un standardize Estimates	standardize Estimates	S.E.	P
RSP3	<---	RSP	1.000	.874		
RSP1	<---	RSP	.945	.759	.038	***
RSP5	<---	RSP	.950	.800	.035	***
RSP2	<---	RSP	.872	.760	.035	***
RSP4	<---	RSP	.945	.805	.034	***
CNT2	<---	CNT	1.000	.858		
CNT1	<---	CNT	.924	.766	.043	***
CNT3	<---	CNT	.862	.749	.041	***
CMS1	<---	CMS	1.000	.730		
CMS2	<---	CMS	1.084	.795	.059	***
CMS3	<---	CMS	1.010	.734	.057	***

4.6 Exploratory Factor Analysis in SFM

EFA was performed to determine which variables will be loaded under a particular factor. Factor analysis attempts to group a set of variables which explains a common variance that measures a particular factor (Hair et al., 2010). The PCA and orthogonal (Varimax) rotation methods were employed to extract the factors and its latent variables.

4.6.1 Sample Adequacy

Before performing factor extraction, the data is tested for sample adequacy. Sample adequacy tested by Kaiser-Meyer-Olkin (KMO) value; this measure indicates that there may be a change variables may be due to the underling factors. The ratios area from 0 to 1. The Kaiser Meyer olkin value must exceed more than .50 for each individual variable value above .80 and for both overall fit and is treated representative (Hair et al., 2010). It is observed that the KMO value of this study is .88 (table 4.10); hence, the sample is adequate to run the factor extraction. Apart from the sample adequacy test, the study also tested whether data is suitable to address the problem i-e significance of the study, this can be found by Bartlett's test of sphericity. The value of this test must be less than 0.05; in this study, the value is 0.00 (Table 4.10), which indicates that the data is suitable for conducting factor analysis.

Table 4.12 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
	Approx. Chi-Square	13964.655
Bartlett's Test of Sphericity	Df	465
	Sig.	.000

4.6.2 Principal Component Analysis

By performing PCA eight factors which are needed to represent the variables of the construct can be explained. Each set of variables are evaluated using the varimax rotation having a factor loadings for 0.5 and above. A latent root value also is known as Eigenvalue demotes the sum of the variance calculated for a factor, and the higher the value, the more significant, Eigenvalue

is used as one of the norm regulate the number of exact factors. To identify the initial number of factors that are to be retained, the criterion of an eigenvalue over 1 for each dimension was considered. The iterative process output the final scale of SRS of 31 questions on eight elements, namely 1. Effort 2.Courtesy 3.Apology 4.Followup 5.Speed of Response 6.Problem Solving 7.Explanation 8.Facilitation (see Table 4.11). The percentage of variance explained by these eight domains (Table 4.11) scale is 70.71%. The total variance explained by the first factor is 9.51%, which is less than 50%, thus indicating data is free from common method bias. Reliability and validity are measured separately for all the eight features ensure that the structure of each of these elements is shared by a common core.

Table 4.13

Total Variance Explained

Compon ents	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulative %
1	9.570	30.871	30.871	9.570	30.871	30.871	2.950	9.515	9.515
2	2.591	8.357	39.227	2.591	8.357	39.227	2.931	9.453	18.968
3	1.994	6.431	45.658	1.994	6.431	45.658	2.884	9.304	28.272
4	1.906	6.147	51.805	1.906	6.147	51.805	2.833	9.139	37.412
5	1.707	5.508	57.313	1.707	5.508	57.313	2.787	8.990	46.402
6	1.557	5.024	62.336	1.557	5.024	62.336	2.753	8.882	55.284
7	1.412	4.554	66.891	1.412	4.554	66.891	2.710	8.742	64.026
8	1.187	3.828	70.719	1.187	3.828	70.719	2.075	6.693	70.719
9	1.086	3.502	74.221						
10	.670	2.160	76.381						
11	.604	1.948	78.329						
12	.570	1.837	80.166						

13	.512	1.653	81.819					
14	.505	1.628	83.447					
15	.442	1.427	84.874					
16	.423	1.363	86.237					
17	.407	1.312	87.549					
18	.394	1.272	88.821					
19	.385	1.243	90.064					
20	.356	1.147	91.211					
21	.331	1.069	92.280					
22	.312	1.006	93.286					
23	.305	.985	94.270					
24	.281	.906	95.176					
25	.254	.819	95.995					
26	.245	.790	96.785					
27	.241	.777	97.562					
28	.220	.710	98.273					
29	.199	.642	98.914					
30	.175	.564	99.478					
31	.162	.522	100.000					

Extraction Method: Principal Component Analysis.

4.6.3 Rotated Component Matrix

Hence the output of the RCM are given in the table below. Factor loading explains the correlation related item and the component values .50 higher are considered rationally notable. The items values higher than .50 were retained.

Table 4.14 Rotated Component Matrix^a

	Components							
	1	2	3	4	5	6	7	8
EFT3	.802							
EFT2	.793							
EFT4	.780							
EFT1	.715							
CTY2		.844						
CTY3		.816						
CTY1		.789						
CTY4		.667						
APG3			.826					
APG1			.787					
APG2			.784					
APG4			.770					
FLP3				.810				
FLP4				.774				
FLP1				.773				
FLP2				.772				
SRP2					.833			
SRP3					.741			
SRP4					.696			

SRP1				.686			
PMS4					.888		
PMS2					.827		
PMS3					.730		
PMS1					.589		
EPN2						.814	
EPN3						.785	
EPN1						.733	
EPN4						.674	
FAT2							.815
FAT1							.732
FAT3							.730

Extraction Method: PCA

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

4.6.4 Reliability:

Composite reliability and Cronbach's Alpha measure reliability. Alpha value measures the internal consistency of scale, this values are extremely satisfy for SRS (.77 to .87) outstanding the simple initial value of value of .70.

Table 4.15 Reliability

Construct	Cronbach's Alpha
EFT	0.873
CTY	0.843
APG	0.864
FLP	0.855

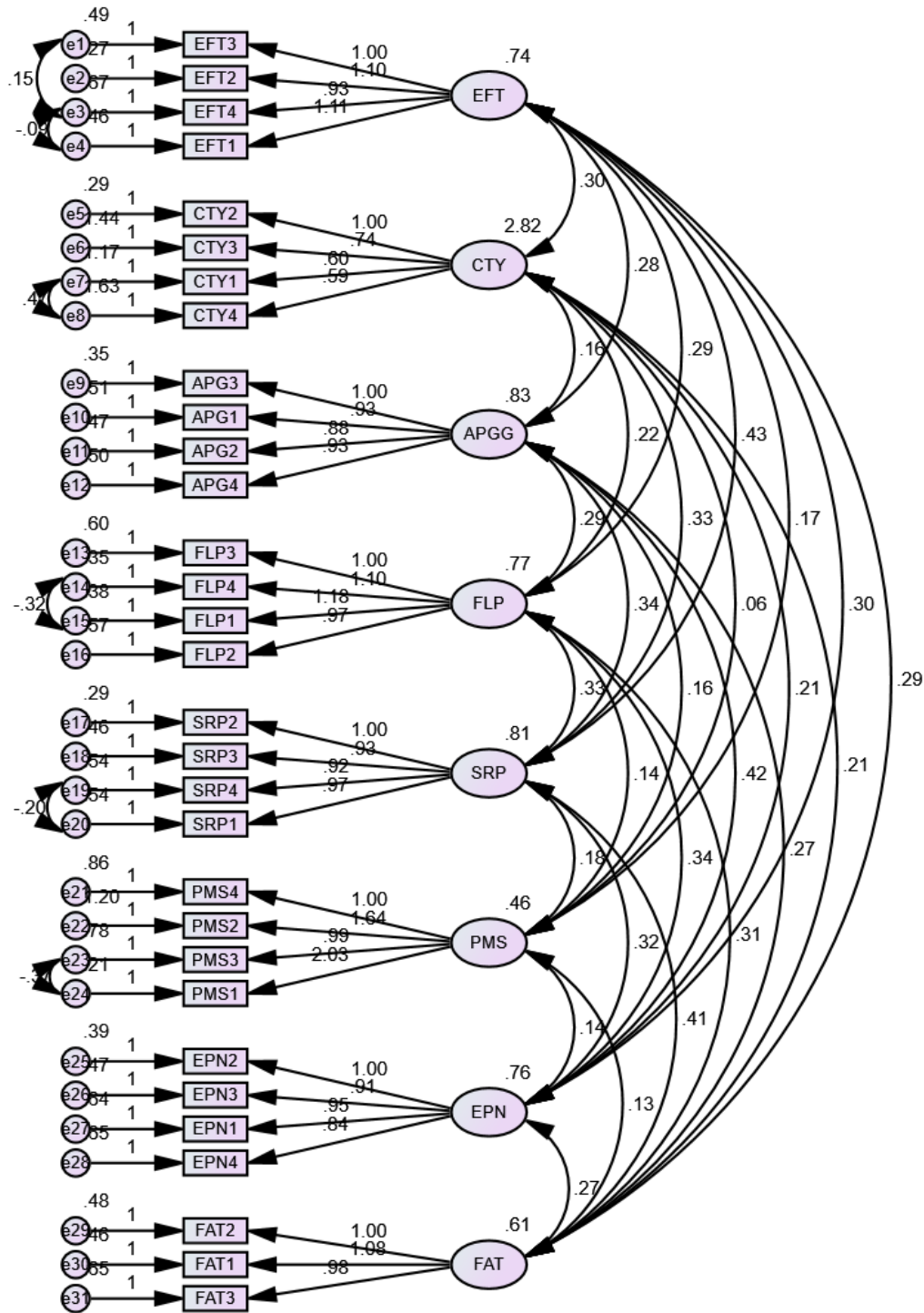
SRP	0.851
PMS	0.775
EPN	0.827
FAT	0.781

4.7 First Order Model of CFA

Proposed Structural model of SR to improve online and offline failures in electronic appliances of services were estimated in two stages. First, the measurement models are tested by conducting first order CFA; the first order CFA model has eight factors with 31 variables which are correlated. Covariances between the constructs are represented with a single latent construct.

The first order model was built using recommendations of Bryne (2010). To experiment the CFA first order model, basic criteria is to ensure that the eight factors are correlated. The schematic representation of the measurement model on SRS is shown in fig. 4.3 below. The results of AMOS output shows the final factor structure with eight observed factors and rectangles represented by the medium-sized circles represent the 31 observed variables. The smaller circles represent the error terms. The eight factors are 1. Effort-EFT1, EFT2, EFT3, EFT4, 2. Courtesy-CTY1, CTY2, CTY3, CTY4, 3. Apology-APG1, APG2, APG3, APG4, 4. Followup-FLP1, FLP2, FLP3, FLP4, 5. Speed of response-SRP1, SRP2, SRP3, SRP4, 6. Problem Solving-PMS1, PMS2, PMS3, PMS4, 7. Explanation-EPN1, EPN2, EPN3, EPN4, 8. Facilitation-FAT1, FAT2, FAT3. The confirmatory factor analysis results shows that the constructs loadings are found to be between 0.56 and 0.90.

Fig 4.4 CFA (SRS) First Order Model



4.7.1 Measurement Model - Reliability and Validity

Reliability of the first order model can be determined by CR and validity by CV and DV.

4.7.2 Reliability

CR is a more appropriate measure of reliability than Cronbach's alpha (Chin 2010). It assesses the indicator loadings to determine to construct scores. The composite reliability of the construct SRS items varies from 0.78 to 0.88. These values are higher than the required criteria 0.70 (Fornell & Larcker, 1981a). Cronbach's alpha value and CR values indicate a high internal consistency and reliability of the latent construct SRS and its dimensions.

4.7.3 Validity

Validity was measured by convergent validity and discriminant validity. Whether elements are measuring the same construct or not is measured by convergent validity. Whether the factor is distinct from other constructs or not is assessed by DV.

4.7.3.1 Convergent Validity

CV was measured by standardized factor loadings and AVE. The standardized factor loadings should be above .70 (Hair et al., 2008). In present study, all the factor loadings are above .70. AVE for size must be higher than 0.5 (Fornell & Larcker, 1981a). In this investigation, AVE values SRS dimensions ranged from .55 to .64. Thus it indicates that the constructs variables.

4.7.3.2 Discriminant Validity

DV specifies how distinct the construct is compared to other constructs. This can be assessed by comparing the square root of the AVE for each construct, and it inter-construct correlations (Fornell & Larcker, 1981a, 1981b). Extracted variance values are higher than inter-construct correlations, indicating each factor is distinctive.

4.7.3.3 Construct Validity

The SRS has construct reliability, convergent validity and discriminant validity hence the scale has construct validity (Hair et al., 2010)

Table 4.16 SRS: Reliability & Validity

Constructs	C.R	AVE	MSV	ASV
Effort	0.87	0.636	0.30	0.18
Courtesy	0.88	0.642	0.25	0.15
Apology	0.86	0.615	0.27	0.15
Follow up	0.88	0.645	0.20	0.14
Speed of Response	0.87	0.619	0.34	0.21
Problem solving	0.83	0.564	0.12	0.09
Explanation	0.83	0.552	0.27	0.16
Facilitation	0.78	0.547	0.34	0.19

Table 4.17 Discriminant Validity of SRS

	Effort	Courtesy	Apology	Follow up	Speed of Response	Problem-solving	Explanation	Facilitation
Effort	0.800							
Courtesy	0.500	0.80						
Apology	0.370	0.365	0.74					
Follow up	0.384	0.243	0.362	0.78				
Speed of Response	0.552	0.458	0.416	0.415	0.80			

Problem solving	0.341	0.324	0.265	0.234	0.32	0.79		
Explanation	0.405	0.286	0.522	0.449	0.403	0.292	0.75	
Facilitation	0.426	0.453	0.378	0.447	0.58	0.345	0.402	0.74

4.7.4 Model fit summary of the SRS

The study verified the goodness of fitness using the maximum likelihood approximation method (Arbuckle, 2007) to execute the model. The table below shows the model fit criteria used to assess the model. The value of GFI-Goodness of fit indices 0.95 is considered to be a perfect fit (Hair et al., 2010), here the GFI value is 0.86 which indicates that the model has a good fit. RMSEA value of this model is 0.06; the value from 0.05 to 0.08 is considered to be good. The value of CFI of the current model is 0.90, which is considered as a good fit index, CFI value more than 0.90 considered as a good fit. The value of NFI should range from 0 to 1; for this measurement model, the NFI value is 0.88, which indicates a good fit. All the model fit indices fall under accepted ranges with $\chi^2/df = 4.153$.

Table 4.18 CFA first order Model fit Indices of SRS

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.867	0.908	4.153	0.835	0.883	0.063	0.000

**Table 4.19 Factor loadings Regression Weights and the significance of relationship
between constructs**

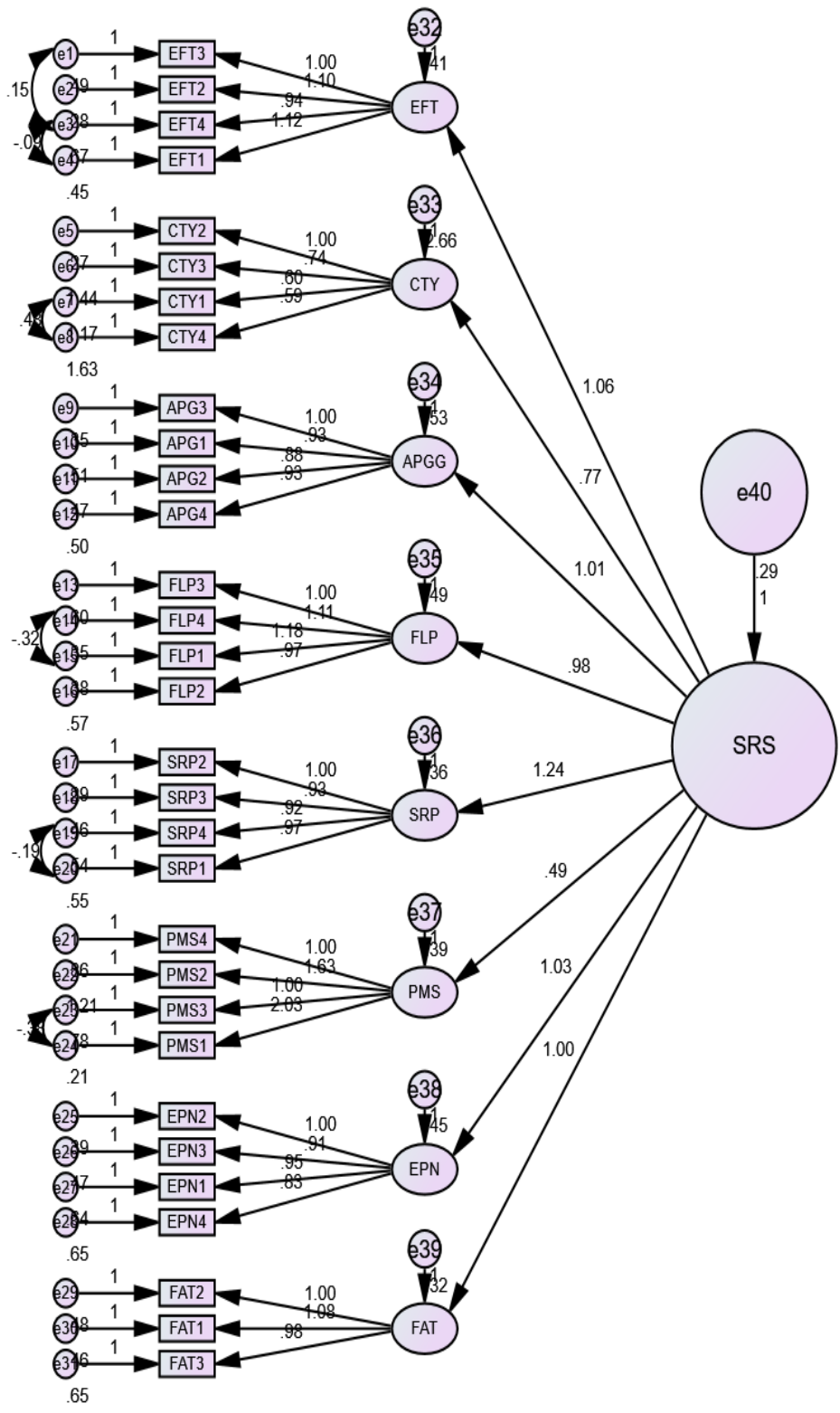
			Un standardize Estimates	standardize Estimates	S.E.	P
EFT3	<---	EFT	1.000	.777		
EFT2	<---	EFT	1.100	.877	.044	***
EFT4	<---	EFT	.933	.700	.041	***
EFT1	<---	EFT	1.110	.817	.047	***
CTY2	<---	CTY	1.000	.953		
CTY3	<---	CTY	.739	.720	.036	***
CTY1	<---	CTY	.601	.683	.031	***
CTY4	<---	CTY	.595	.617	.034	***
APG3	<---	APGG	1.000	.841		
APG1	<---	APGG	.927	.765	.040	***
APG2	<---	APGG	.879	.760	.038	***
APG4	<---	APGG	.927	.768	.039	***
FLP3	<---	FLP	1.000	.749		
FLP4	<---	FLP	1.104	.852	.051	***
FLP1	<---	FLP	1.179	.858	.054	***
FLP2	<---	FLP	.970	.748	.043	***
SRP2	<---	SRP	1.000	.857		
SRP3	<---	SRP	.930	.777	.036	***
SRP4	<---	SRP	.917	.746	.040	***

SRP1	<---	SRP	.970	.764	.041	***
PMS4	<---	PMS	1.000	.590		
PMS2	<---	PMS	1.635	.711	.098	***
PMS3	<---	PMS	.991	.605	.085	***
PMS1	<---	PMS	2.031	.948	.132	***
EPN2	<---	EPN	1.000	.815		
EPN3	<---	EPN	.909	.757	.042	***
EPN1	<---	EPN	.951	.721	.047	***
EPN4	<---	EPN	.837	.672	.044	***
FAT2	<---	FAT	1.000	.748		
FAT1	<---	FAT	1.077	.779	.059	***
FAT3	<---	FAT	.979	.689	.057	***

4.8 Second Order Model of Confirmatory Factor Analysis

Second order CFA measurement model consists of two levels of latent constructs. Eight constructs are confirmed from first order CFA model (1.Effort 2.Courtesy 3.Apology 4.Followup 5.Speed of Response 6.Problem Solving 7.Explanation 8.Facilitation) and one second-order construct (SRS). The Second tier model was developed examine this hypothesis, SRS is a multidimensional construct which is measured by three dimensions i-e. Effort, Courtesy, Apology, Follow up, Speed of Response, Problem Solving, Explanation, and Facilitation, each demine there was a significant positive connection with SRS (see figure4.4). The results of second order measurement model show the reliable and valid for further analysis (See table4.17). Construct reliability is (CR) and AVE. All the model fit values: All the model fit indices falls under accepted ranges which is given in the table 4.20. Each factor has a significant ($p < .01$) positive association with SRS.

Fig. 4.5 CFA (SRS) Second Order Model



Model Fit Indices Table 4.20

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.860	0.901	4.237	0.835	0.875	0.064	0.000

Table 4.21 Factor loadings Regression Weights and the significance of relationship between constructs

			Un standardize Estimates	standardize Estimates	S.E.	P
EFT	<---	SRS	1.063	.668	.091	***
CTY	<---	SRS	.775	.249	.134	***
APGG	<---	SRS	1.009	.599	.090	***
FLP	<---	SRS	.977	.604	.089	***
SRP	<---	SRS	1.241	.746	.097	***
PMS	<---	SRS	.488	.390	.063	***
EPN	<---	SRS	1.030	.638	.090	***
FAT	<---	SRS	1.000	.693		
EFT3	<---	EFT	1.000	.776		
EFT2	<---	EFT	1.096	.873	.045	***
EFT4	<---	EFT	.936	.702	.042	***
EFT1	<---	EFT	1.117	.822	.048	***

CTY2	<---	CTY	1.000	.956		
CTY3	<---	CTY	.736	.718	.036	***
CTY1	<---	CTY	.598	.681	.031	***
CTY4	<---	CTY	.591	.615	.034	***
APG3	<---	APGG	1.000	.840		
APG1	<---	APGG	.928	.765	.040	***
APG2	<---	APGG	.882	.762	.038	***
APG4	<---	APGG	.927	.768	.040	***
FLP3	<---	FLP	1.000	.748		
FLP4	<---	FLP	1.107	.854	.051	***
FLP1	<---	FLP	1.181	.858	.054	***
FLP2	<---	FLP	.970	.747	.044	***
SRP2	<---	SRP	1.000	.858		
SRP3	<---	SRP	.931	.778	.036	***
SRP4	<---	SRP	.915	.745	.040	***
SRP1	<---	SRP	.966	.762	.041	***
PMS4	<---	PMS	1.000	.589		
PMS2	<---	PMS	1.632	.709	.098	***
PMS3	<---	PMS	.997	.608	.086	***
PMS1	<---	PMS	2.034	.949	.133	***
EPN2	<---	EPN	1.000	.815		
EPN3	<---	EPN	.912	.760	.043	***
EPN1	<---	EPN	.950	.720	.047	***
EPN4	<---	EPN	.835	.670	.045	***

FAT2	<---	FAT	1.000	.748		
FAT1	<---	FAT	1.079	.781	.059	***
FAT3	<---	FAT	.975	.687	.058	***

4.9 EFA in Remaining Constructs PF-CS-CL-CI

Exploratory factor analysis is performed to determine which variables will be loaded under a particular factor. Factor analysis undertake to group of variables which explains a common variance that measures a specific construct. To decrease the dimensionality of the original space and to provide an interpretation to the new space, extend over by a reduced number of new dimensions which are held to underlie the old ones (Rietveld, 1993). The PCA and orthogonal (Varimax) rotation methods were employed to extract the factors and its latent variables.

4.9.1 Sample Adequacy

Sample adequacy is tested by Kaiser-Meyer-Olkin (KMO) value; this measure specify the underlying factors which is segment of variance in variables. This index ranges from 0 to 1. The KMO value should be greater than 0.50 for each overall fit and every variable, and for a value more than .80 is teated valid (Hair et al., 2010). It is observed that the KMO value of this study is .93 (see table 4.18); hence, the sample is adequate. Apart from the sample adequacy test, the study also tested whether data is suitable to address the problem i-e significance of the study, this can be found by Bartlett's test of sphericity. This value must be less than 0.05; in this study, it is 0.00 (see Table 4.18), which indicates that the data is reasonable for conducting factor analysis.

Table 4.22KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.937
Bartlett's Test of Sphericity	Approx. Chi-Square	23802.229
	Df	528
	Sig.	.000

4.9.2 Principal Component Analysis

Four factors are needed to effectively represent variables of the construct could be explained by performing PCA. Each group of variables was analyzed using varimax rotation, with a factor loading of .5 or above. A latent root value also is known as Eigenvalue produce the amount of variance calculated, and the expense more than one is significant, Eigenvalue is used as one of the criteria for reduce the number of extracted factors. The initial number of aspects that are to be retained, the criterion of an eigenvalue above 1 for each construct was considered. This iterative process resulted in four factors consisting of 33 items namely 1. CS 2. Process failure 3. CI 4. CL (see Table 4.19). Reliability and validity are measured separately for all the four factors.

Table 4.23 Total Variance Explained

Components	Initial Eigen values			Extraction Sums of Squared			Rotation Sums of Squared		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.118	36.721	36.721	12.118	36.721	36.721	7.856	23.805	23.805
2	5.629	17.057	53.778	5.629	17.057	53.778	5.917	17.929	41.734
3	3.177	9.627	63.404	3.177	9.627	63.404	5.409	16.391	58.126
4	2.544	7.708	71.112	2.544	7.708	71.112	4.285	12.986	71.112
5	1.114	3.376	74.488						
6	.601	1.820	76.308						
7	.531	1.610	77.918						
8	.509	1.541	79.459						
9	.485	1.469	80.928						
10	.477	1.445	82.373						
11	.446	1.352	83.725						
12	.421	1.276	85.002						
13	.393	1.192	86.193						
14	.352	1.067	87.260						
15	.348	1.056	88.315						
16	.316	.956	89.272						

17	.304	.921	90.193					
18	.292	.883	91.076					
19	.282	.856	91.932					
20	.276	.836	92.768					
21	.254	.768	93.536					
22	.237	.717	94.254					
23	.234	.708	94.961					
24	.220	.668	95.629					
25	.210	.638	96.267					
26	.200	.606	96.873					
27	.196	.594	97.467					
28	.179	.543	98.010					
29	.158	.478	98.488					
30	.150	.453	98.942					
31	.134	.406	99.348					
32	.127	.383	99.731					
33	.089	.269	100.000					

Extraction Method: Principal Component Analysis.

4.9.3 Rotated Component Matrix

The rotated component matrix analyses have resulted in four factors. Each of these four factors has a high internal consistency and a minimum alpha value 0.70 to use as scale for future analysis (Hair, Black, Babin, Anderson, & Tatham, 2006; Hair et al., 2008).

Table 4.24 Rotated Component Matrix^a

	Component			
	1	2	3	4
CUS2	.861			
CUS3	.838			
CUS4	.821			
CUS8	.812			
CUS11	.812			
CUS7	.801			
CUS9	.794			
CUS1	.791			
CUS10	.789			
CUS6	.787			
CUS5	.756			
PRF6		.879		
PRF4		.876		
PRF5		.861		
PRF2		.847		
PRF1		.847		
PRF3		.843		
PRF7		.841		
PRF8		.840		
CPI4			.798	

CPI3			.789	
CPI8			.784	
CPI2			.778	
CPI5			.771	
CPI6			.770	
CPI7			.768	
CPI1			.740	
CSL3				.817
CSL4				.816
CSL6				.794
CSL2				.791
CSL5				.773
CSL1				.753

Table 4.25 Reliability

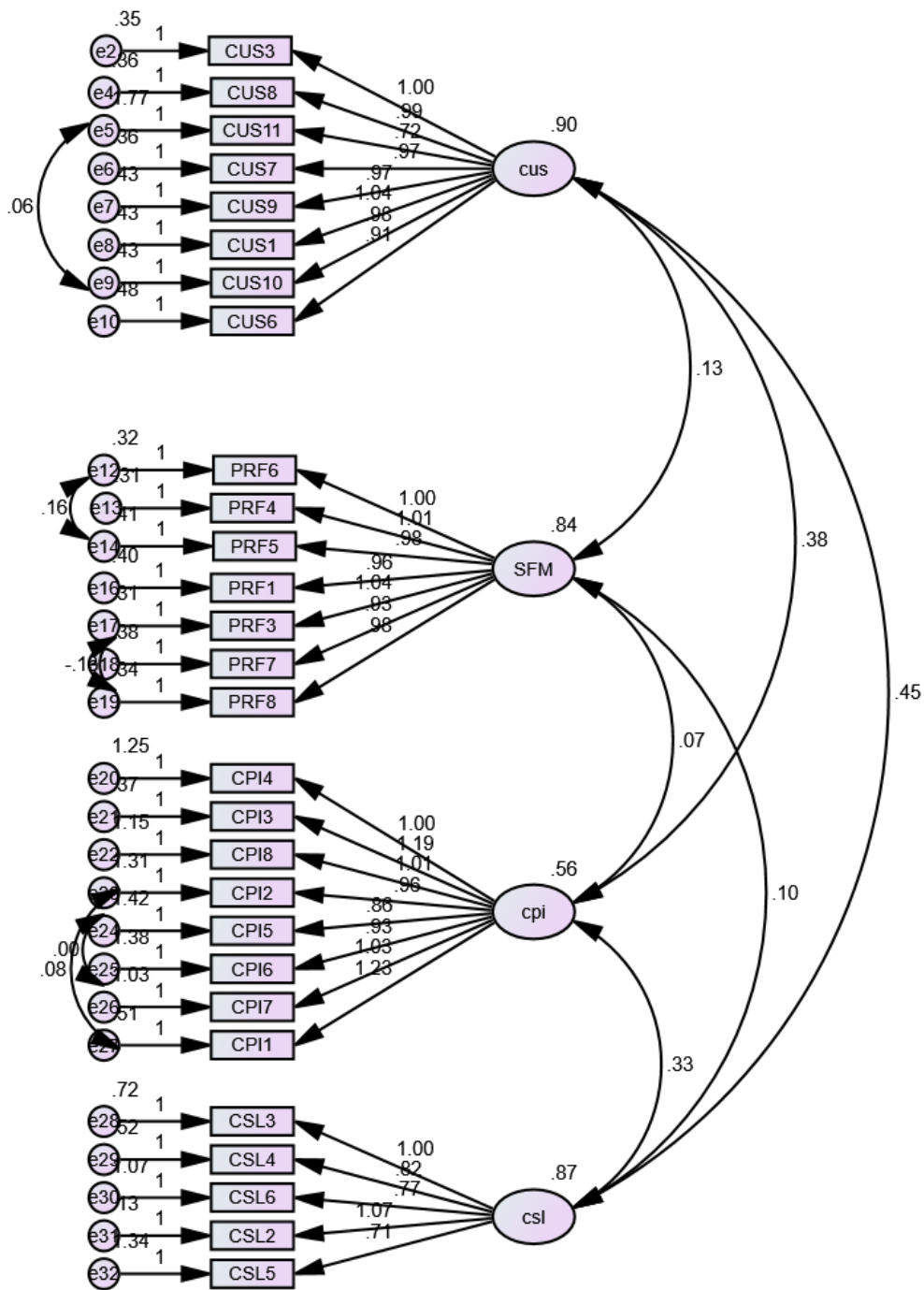
Construct	Cronbach's Alpha
Process Failure	0.949
CS	0.938
CL	0.860
CI	0.822

4.9.4 Reliability: CA (Cronbach's Alpha) and CR measure reliability. CA measures the internal consistency of the scale, the CA values are highly satisfactory for the above table 4.21 shows Process failure (.94), CS (.93), CI (.82) CL (.86) exceeding the normal threshold value is .70.

4.10 CFA of Latent Constructs

The CFA analysis is performed to confirm variables that measure a factor along with variance and co-variance characteristics in a measurement model. This shows that the association between the variables and constructs. The simplified depiction of the assessment model of the veiled dimensions shown in the figure 4.5 below the results of AMOS output shows the final factor structure with four factors are represented the 28 observed variables represented by by medium-size circles and rectangles. The smaller circles represent the error terms. The four constructs are CS measure with 8 items-CUS1, CUS3, CUS6, CUS7, CUS8, CUS9, CUS10, CUS11, Process failure with 7 items-PRF1, PRF3, PRF4, PRF5, PRF6, PRF7, PRF8, CI with 8 items-CPI1, CPI2, CPI3, CPI4, CPI5, CPI6, CPI7, CPI8, CL with 5 items- CSL2, CSL3, CSL4, CSL5, CSL6. Based on the standardized residuals and modification indices, the observed variables CUS2, CUS4, CUS5, PRF2, and CSL1 are removed. The confirmatory factor analysis results shows that the constructs loadings are found to be between 0.56 and 0.90.

Figure 4.6 CFA of Latent Constructs



4.10.1 Appraisal Model: Reliability & Validity

Reliability of the first order measurement model can be assessed by CR and validity by CV and DV.

4.10.2 Reliability

CR is a more appropriate measure of reliability than Cronbach's alpha (Chin 2010). It assesses the indicator loadings to determine to construct scores. The composite reliability of the constructs Process failure-.75, CS-.70, CL-.91, and CI-is .93; these values are higher than the required criteria 0.70 (Hair et al., 2008). Cronbach's alpha value and CR values indicate a large internal flexibility and reliability of the latent construct SRS and its dimensions.

4.10.3 Validity

Validity is calculated by using CV and DV. Whether these items are measuring the same construct or not is calculated by convergent validity. Whether the dimension is distinct from other constructs or not is assessed by DV.

4.10.3.1 Convergent Validity

CV is measured by standardized factor loadings and AVE. The standardized factor loadings should be above .70 (Hair et al., 2008). In current study, all loadings are above 0.70. AVE should be higher than .50 (Fornell & Lacker, 1981), in this study AVE values for Process failure-.69, CS-.68, CL-.67, and CI-is .61. Thus it indicates that the construct's variables share a high proportion of variance in common.

4.10.3.2 Discriminant Validity

Discriminant validity specifies how distinct the construct is compared to other constructs. This can be assessed by comparing the inter-construct correlations and square root of the average

variance extracted for each construct (Fornell & Larcker, 1981a). Extracted variance values are higher than inter-construct correlations, indicating that each factor is distinctive.

Table 4.26 Latent Constructs: Reliability & Validity

Constructs	C.R	AVE	MSV	ASV
Process Failure	0.75	0.697	0.28	0.20
CS	0.70	0.680	0.28	0.19
CL	0.91	0.677	0.28	0.26
CI	0.93	0.612	0.28	0.26

Table 4.27 Discriminant validity of the latent constructs

Constructs	CS	CI	CL	PF
CS	0.83			
CI	0.53	0.78		
CL	0.527	0.469	0.82	
Process Failure	0.147	0.53	0.527	0.84

4.10.4 Latent constructs: Model Fit Indices

This research verified the goodness of fitness using the maximum likelihood estimation method (Arbuckle, 2007) to execute the model. The table below shows the model fit benchmark used to assess the model. The value of GFI-Goodness of fit indices 0.95 is treated to be a perfect fit (Hair et al., 2010). Here the GFI value is 0.87 which indicates a good fit for the model. RMSEA value of this model is 0.06; the value from 0.05 to 0.08 is considered to be good. The value of

CFI of the current model is 0.94 is an excellent fit indices, CFI value above 0.90 is satisfied to be a good fit. The NFI value should range from 0 to 1. For this measurement model, the NFI value is 0.92 which found to be a good fit. AGFI value above .85 and all the model fit indices falls under accepted ranges with $\chi^2/df = 4.156$.

Table 4.28 Latent constructs: Model fit indices

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.878	0.941	4.156	0.854	0.924	0.063	0.000

Table 4.29 Regression Weights and the significance of relationship between constructs

			Un standardize Estimates	standardize Estimates	S.E.	P
CUS3	<---	CUS	1.000	.850		
CUS8	<---	CUS	.991	.843	.033	***
CUS11	<---	CUS	.722	.458	.054	***
CUS7	<---	CUS	.972	.838	.032	***
CUS9	<---	CUS	.971	.815	.034	***
CUS1	<---	CUS	1.040	.833	.035	***
CUS10	<---	CUS	.977	.816	.034	***
CUS6	<---	CUS	.913	.783	.034	***
PRF6	<---	SFM	1.000	.850		
PRF4	<---	SFM	1.012	.857	.032	***

PRF5	<---	SFM	.976	.812	.025	***
PRF1	<---	SFM	.961	.812	.033	***
PRF3	<---	SFM	1.040	.863	.033	***
PRF7	<---	SFM	.928	.811	.032	***
PRF8	<---	SFM	.978	.839	.033	***
CPI4	<---	CPI	1.000	.555		
CPI3	<---	CPI	1.190	.826	.076	***
CPI8	<---	CPI	1.007	.574	.080	***
CPI2	<---	CPI	.962	.532	.082	***
CPI5	<---	CPI	.855	.472	.078	***
CPI6	<---	CPI	.931	.509	.081	***
CPI7	<---	CPI	1.030	.604	.079	***
CPI1	<---	CPI	1.234	.791	.081	***
CSL3	<---	CSL	1.000	.740		
CSL4	<---	CSL	.819	.728	.040	***
CSL6	<---	CSL	.770	.570	.049	***
CSL2	<---	CSL	1.069	.940	.043	***
CSL5	<---	CSL	.705	.494	.052	***

4.11 Structural Equation Modelling

Co-Variance based. Structural equation Modelling has two sets of linear equations measuring measurement and structural models which are represented by schematic diagrams. The measurement model depicts the relationship between the constructs and the variables measuring these constructs; the structural model depicts the relationship between the constructs. Initially, CFA is performed to confirm variables that measure a construct along

with variance and co-variance characteristics in a measurement model after that the hypothesized relationship between the constructs is tested and are combined to form an overall structural model.

The estimation of E-Recovery SQ model is carried out in two stages as per the recommendations of “Anderson & Gerbin (1988) and Hair et al., (2008)”. The model one was estimated the second model fixed to estimate the structural model.

Table 4.30 indicates the direct paths from E-Recovery SQ, CS, and CI resulting in CL are significant with p-value < 0.00. Another variable labeled SRS also found to have a significant effect on E-Recovery SQ with p-value 0.00, and loading is 0.957. Variable SFM has a significant effect on SRS with p-value 0.00, and the loading is .092. Indirect path estimates were tested from independent variables, namely E-Recovery SQ resulting in CL mediated by CS, and CI Results indicate that all the paths were significant. The study verified the goodness of fitness using the maximum likelihood estimation method (Arbuckle, 2007) to execute the model. It is conducted to know whether the model is fit or not. The model was assessed by the following criteria: $\chi^2/df < 3$ (Bentler & Bonett, 1980) GFI > .8 (Seyal, Rahman, & Rahim, 2002). As recommend Bentler & Bonett (1989) NFI and CFI ≥ 0.9 and RMSEA should be near to 0.1 (Browne, Cudeck, Bollen, & Long, 1993). All the model fit indices are showing an excellent fit with $\chi^2/df = 3.294$, CFI = 0.902, GFI = 0.851, NFI = 0.866, and RMSEA = 0.054.

Figure 4.7 Structural Equation Modelling

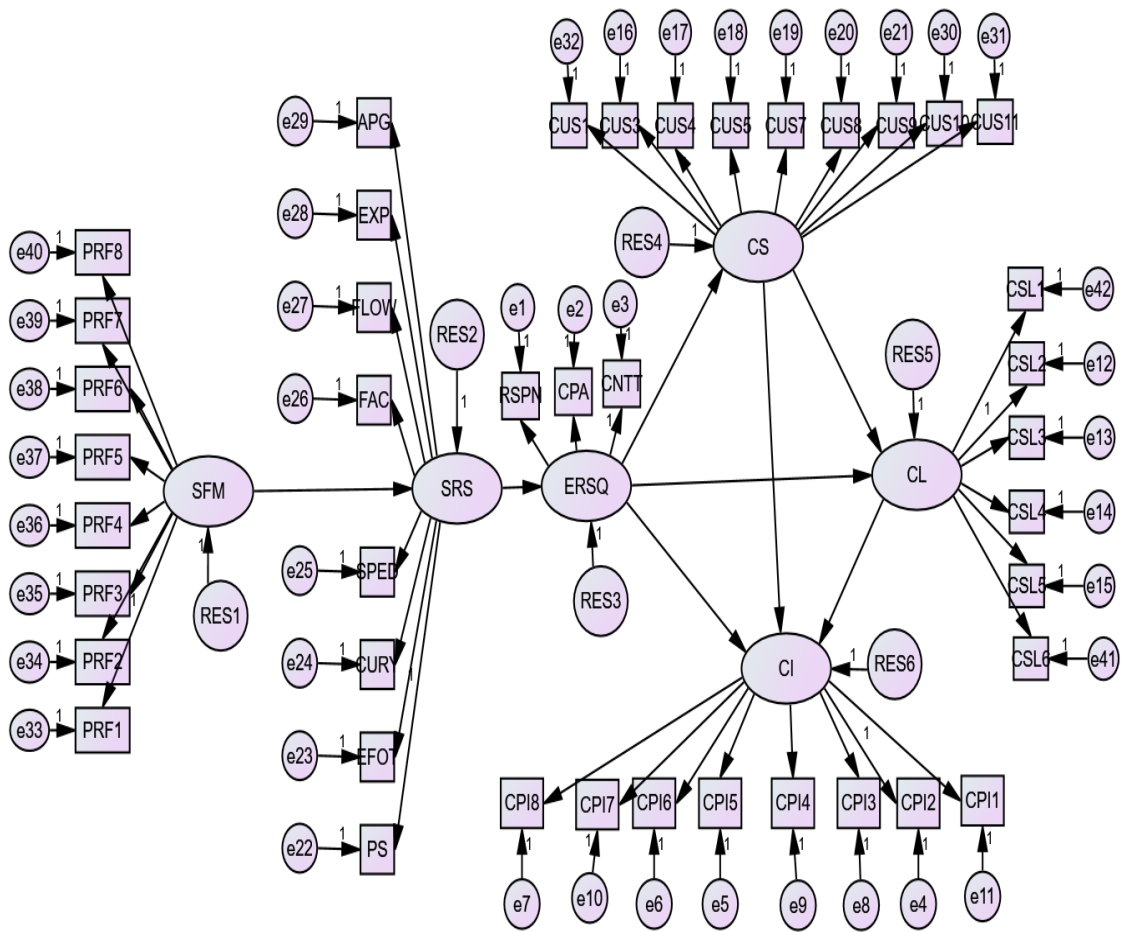


Table 4.30 Structural Model fit index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.851	0.902	3.294	0.834	0.866	0.054	0.000

4.12 Hypothesis Testing

Hypothesis 1: There is a positive relationship between CL and CI

The theoretical relationships of the conceptual model are transformed into hypotheses which are empirically examined. Individual parameter estimates represent a specific hypothesis has opposed to similar assumptions or paths. Eight hypotheses are framed and tested. The results of which are statistically significant.

It is visible from the regression weights all the P values are significant at the 0.000 level. The standardized estimate is 0.603, which indicates that there is a positive association between CL & CI. Therefore hypothesis is **supported**.

Figure 4.8

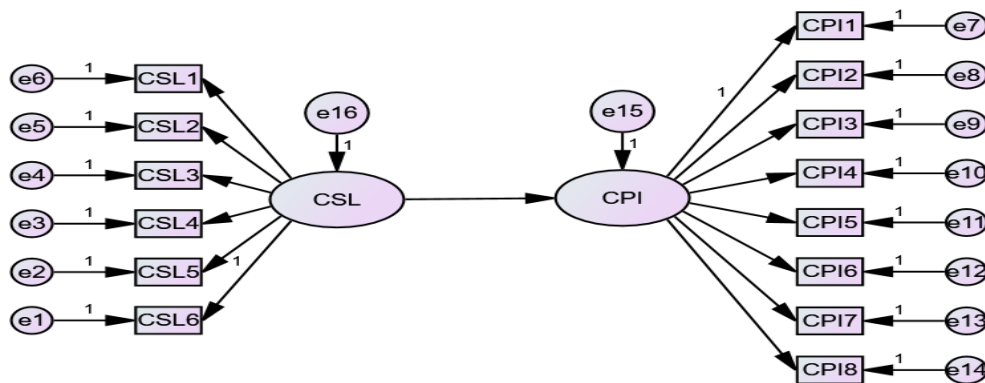


Table 4.31 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.906	0.895	7.508	0.870	0.881	0.090	0.000

The Goodness of Fit Indices

CFA and fit index determine this is model perfect. In this research the perfect fit indicator (relative to the chi-square GFI RMSEA) and cumulative fit index (CFI) noted. All model fit indices falls under accepted ranges are provided in the table 4.31, indicating a significant relationship between CL and CI.

Hypothesis 2: There is a positive relation between CS and CI

It is noticeable from the regression weights table that all the P - values are significant at the 0.000 level. The standardized estimate is 0.711, which indicates that there is a significant relationship between CS and CI. Thus the hypothesis is **supported**.

Goodness of Fit Indices

CFA, and GFI determine the model is acceptable. The current study the perfect GFI relative to the chi-square, GFI, Root Mean Square Error Approximation and incremental fit indices reported. All the indices falls under accepted ranges are mentioned in table 4.32, indicating a significant relationship between CS and CI

Figure 4.9

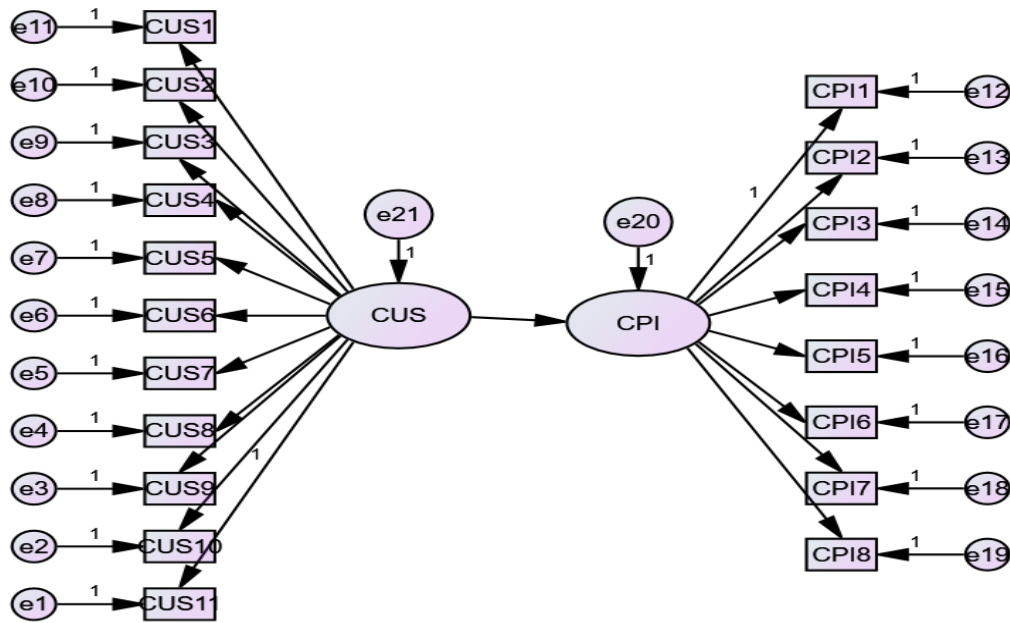


Table 4.32 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	P Value
0.851	0.893	7.964	0.812	0.880	0.093	0.000

Hypothesis 3: There is a positive relationship between CS and CL.

It is visible from the regression weights all the P values are significant at the 0.000 level. The standardized estimate is 0.682, which indicates that there is a significant association between CS and CL. Therefore the hypothesis is **supported**.

Goodness of Fit Indices

All fit indices of the model falls under accepted ranges are listed in table 4.33, indicating a positive relationship between CS and CL.

Figure 4.10

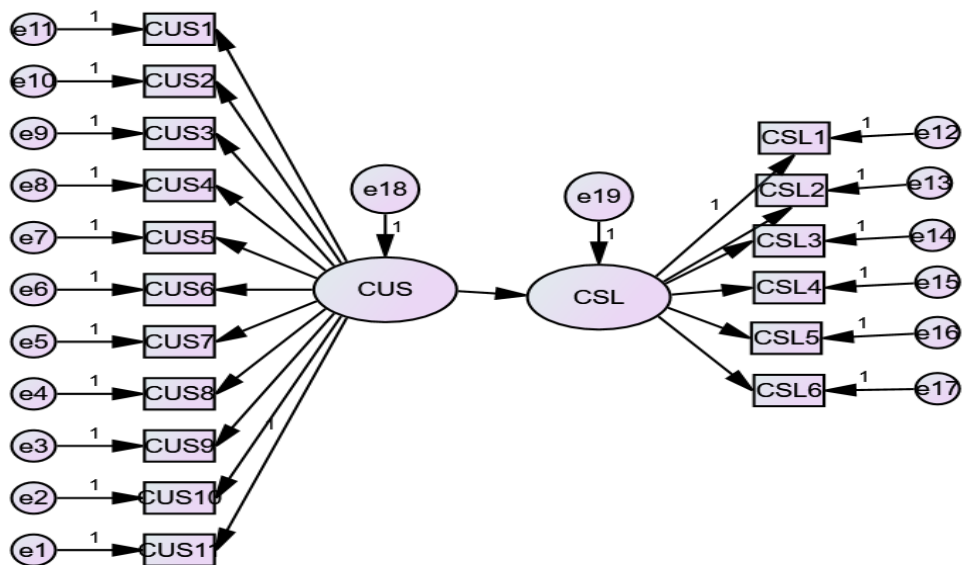


Table 4.33 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.826	0.886	11.112	0.775	0.876	0.113	0.000

Hypothesis 4: There is a positive association between E-Recovery SR and CI

It evident from the Regression weights table that all the P values are significant at the 0.000 level. The standardized estimate is 0.699, which indicates that there is a significant relationship between E-Recovery SQ and CI. Therefore the hypothesis is **supported**.

Goodness of Fit Indices

The fit indices of the model falls under accepted ranges are listed in the table 4.34, indicating a significant relationship between E-Recovery SQ and CI.

Figure 4.11

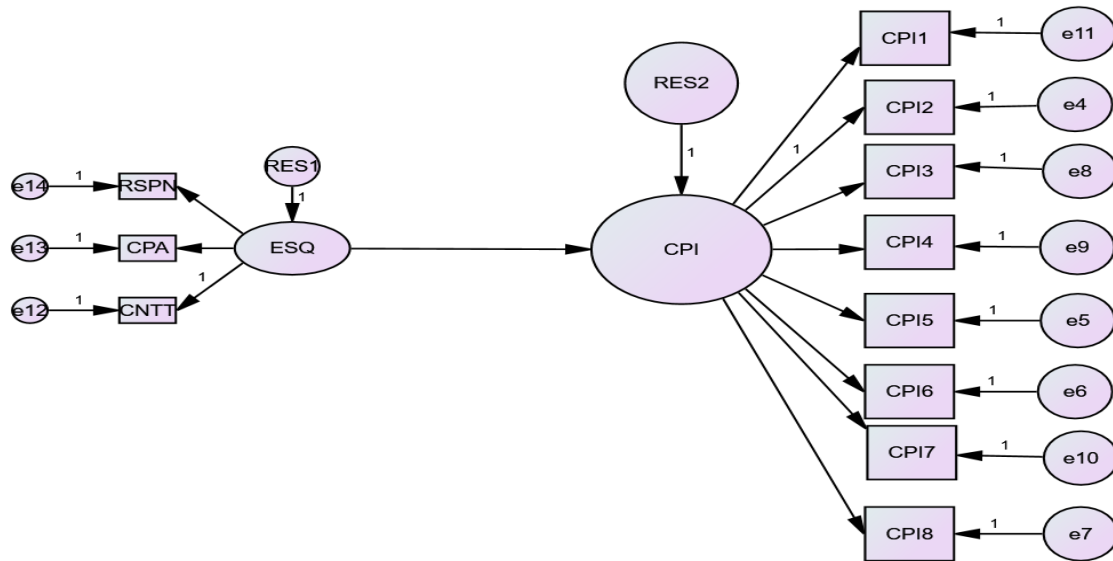


Table 4.34 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.965	0.951	3.648	0.947	0.934	0.058	0.094

Hypothesis 5: There is a positive association between E-Recovery SQ and CL

It is evident from the Regression weights table that all the P values are significant at the 0.000 level. The standardized estimate is 0.749, which indicates that there is a significant relationship between E-Recovery SQ and CL. Therefore the hypothesis is **supported**.

Goodness of Fit Indices

Fit indices of the model falls under accepted ranges are provided in table 4.35, indicating a significant relationship between E-Recovery SQ and CL.

Figure 4.12

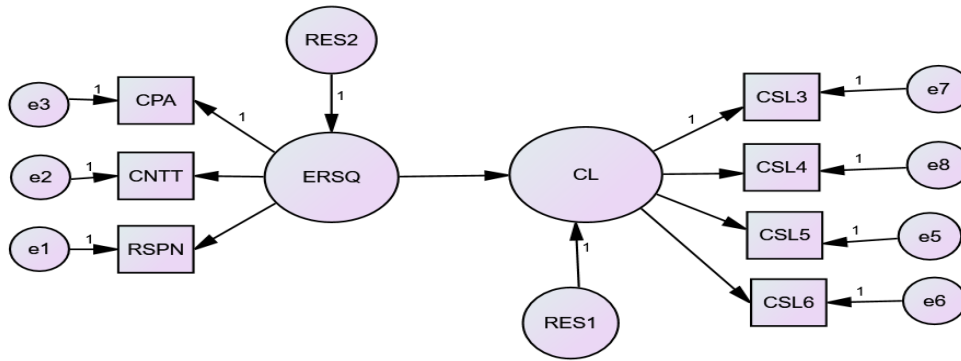


Table 4.35 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.991	0.989	1.970	0.908	0.978	0.035	0.000

Hypothesis 6: There is a positive association between E-Recovery SQ and CS

It is evident from the Regression weights table that all the P values are significant at the 0.000 level. The standardized estimate is 0.620, which indicates that there is a significant relationship between E-Recovery SQ and CS. Therefore the hypothesis is **supported**.

Goodness of Fit Index

The model fit indices falls under accepted ranges are mentioned in the table no.4.36, indicating a significant relationship between E-Recovery SQ and CS.

Figure 4.13

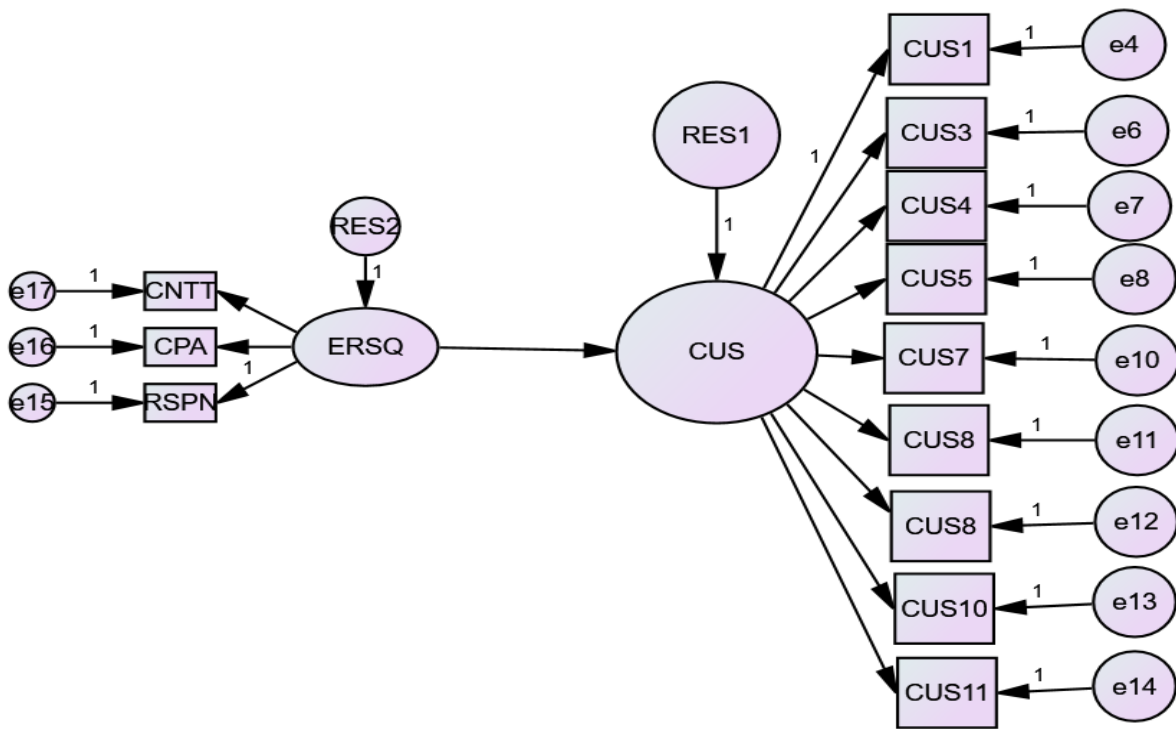


Table 4.36 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.948	0.962	4.904	0.923	0.953	0.070	0.094

Hypothesis 7: There is a positive association between SF management and SRS.

It is evident from the Regression weights table that all the P values are significant at the 0.000 level. The standardized estimate is 0.092, which indicates that there is a significant relationship between SFM and SRS. Therefore the hypothesis is **supported**.

Goodness of Fit Index

The model fit indices falls under accepted ranges are given in the table no.4.37, indicating a significant relationship between SFM and SRS.

Figure 4.14

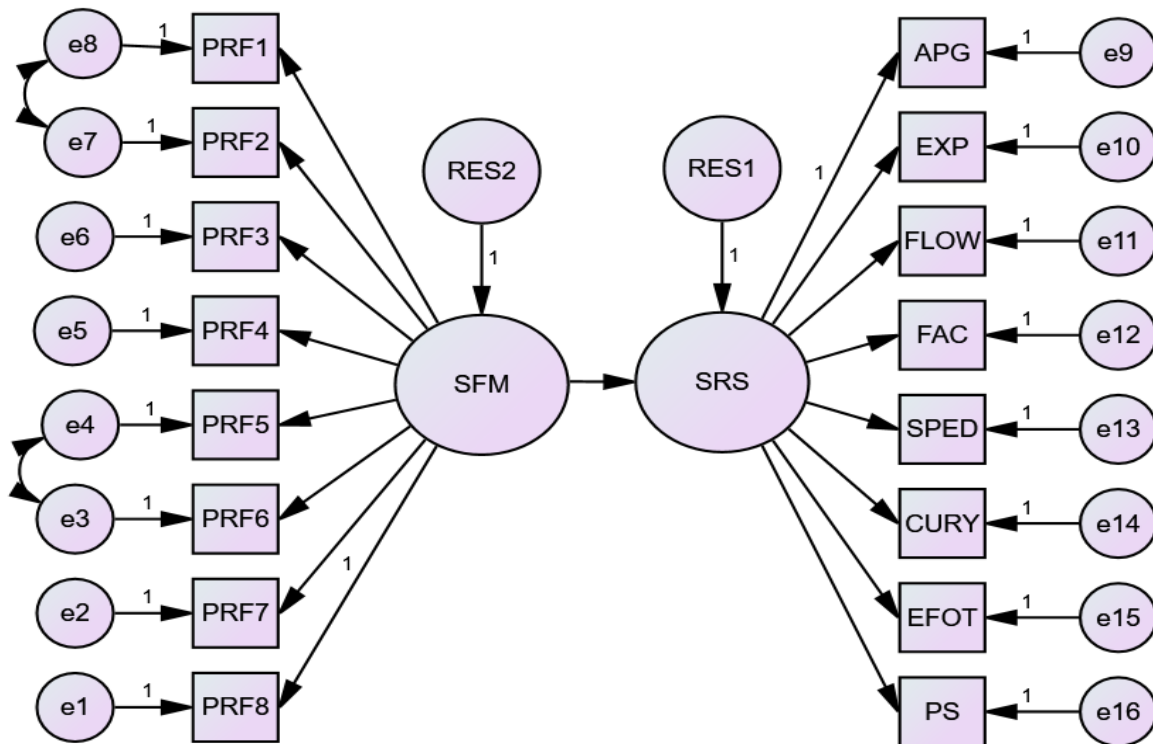


Table 4.37 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.931	0.951	4.622	0.908	0.939	0.067	0.000

Hypothesis 8: There is a positive association between SRS and E-Recovery SQ.

It is evident from the Regression weights table that all the P values are significant at the 0.000 level. The standardized estimate is 0.092, which indicates that there is a significant relationship between SRS and E-Recovery SQ. Therefore the hypothesis is **supported**.

Goodness of Fit Indices

The model fit indices falls under accepted ranges are shown in the table no.4.38, indicating a significant relationship between SFM and SRS.

Figure 4.15

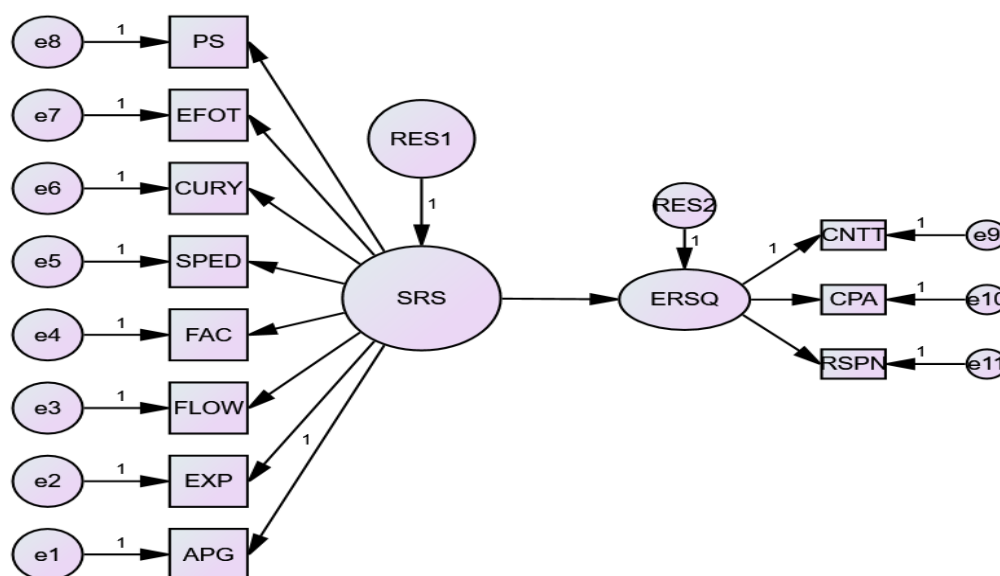


Table 4.38 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.959	0.938	4.260	0.938	0.921	0.064	0.008

4.13 Mediating Hypothesis Testing

H9: To examine the mediating role of CS in the interconnection between E-Recovery SQ and CL

The study examines mediation role on CS in the relationship between E-Recovery SQ and CL. The results showed, CS partially mediates the Relationship between E-Recovery SQ and CL. Based on the bootstrap results, it was found that the indirect effect of E-Recovery SQ mediated by CS is .58 and the direct effect of E-Recovery SQ on CL is .90 in the direct model. Therefore the hypothesis was accepted. ($\chi^2 / df - 8.292$, GFI - 0.842; RMSEA - 0.096; NFI - 0.877; CFI - 0.890; RFI - 0.860; AGFI - 0.802). Model fit index structural mediation model were found to be good.

Figure 4.16

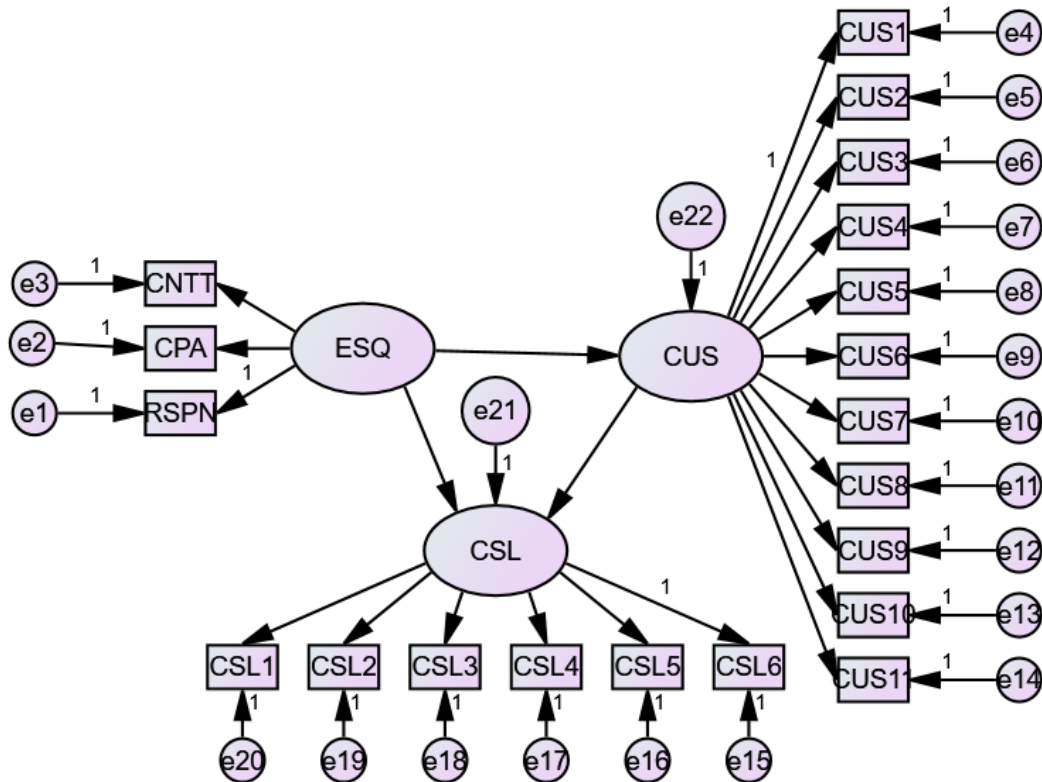


Table 4.39 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.842	0.890	8.292	0.802	0.877	0.096	0.000

H10: To examine the mediating role of CS in the interconnection between E-Recovery SQ and CI

This study examines mediation effect of CL in the relationship between E-Recovery SQ and CI. The output shows that CL partially mediates the relationship between E-Recovery SQ & CI. Based on the bootstrap results, it was found that the indirect effect of E-Recovery SQ mediated by CL is .55 and the direct effect of E-Recovery SQ on the CI is .70 in the direct

model. Direct & indirect effects are significant. Therefore the hypothesis was accepted. ($\chi^2 / df = 6.257$, GFI = 0.861; RMSEA = 0.081; NFI = 0.879; CFI = 0.896; RFI = 0.864; AGFI = 0.830). Model fit indices of the structural mediation model are found to be good.

Figure 4.17

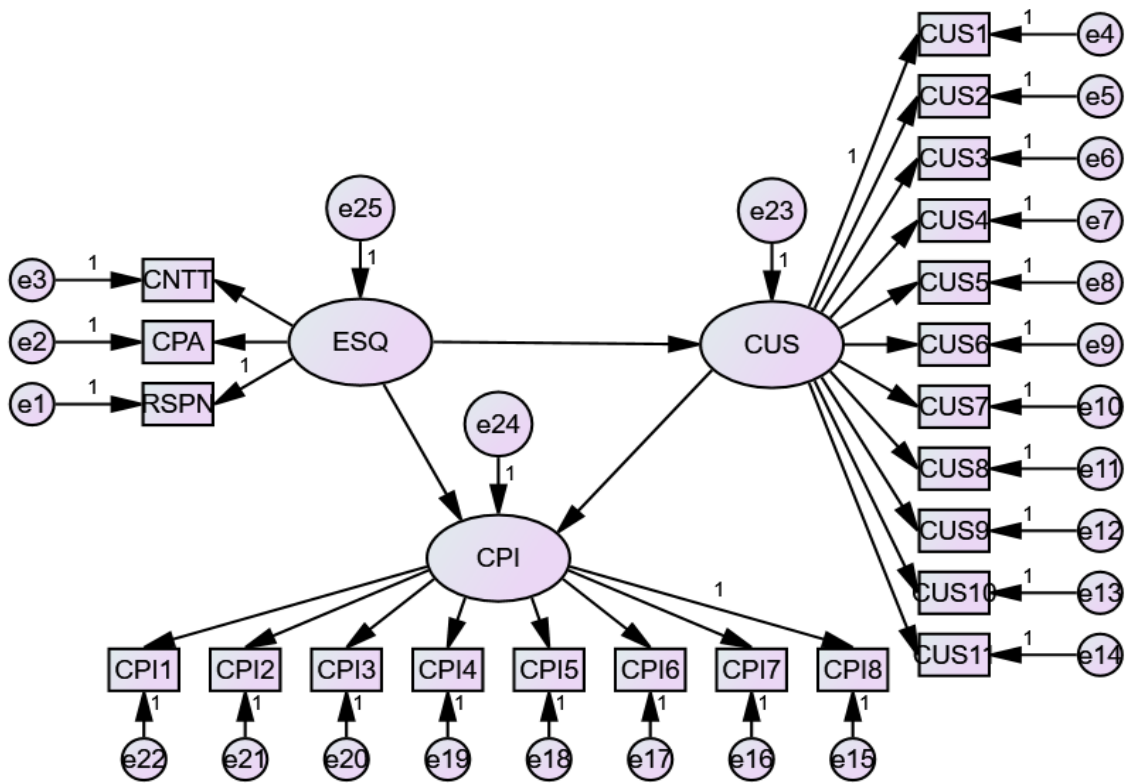


Table 4.40 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.861	0.896	6.257	0.830	0.879	0.081	0.000

H11: To examine the mediation effect of CL in the interconnection between E-Recovery SQ and CI

This study tested the mediation effect of CS in the link between E-Recovery SQ & CI. The results showed that CS partially mediates the Relationship between E-Recovery SQ and CI. Based on the bootstrap results, it was found that the indirect effect of E-Recovery SQ mediated by CS is .41 and the direct effect of E-Recovery SQ on the CI is .70 in the direct model. Therefore the hypothesis was accepted. ($\chi^2 / df - 5.800$, GFI -0.838; RMSEA - 0.078; NFI - 0.855; CFI - 0.877; RFI - 0.842; AGFI - .0809). Model fit indices of the structural mediation model are found to be excellent.

Figure 4.18

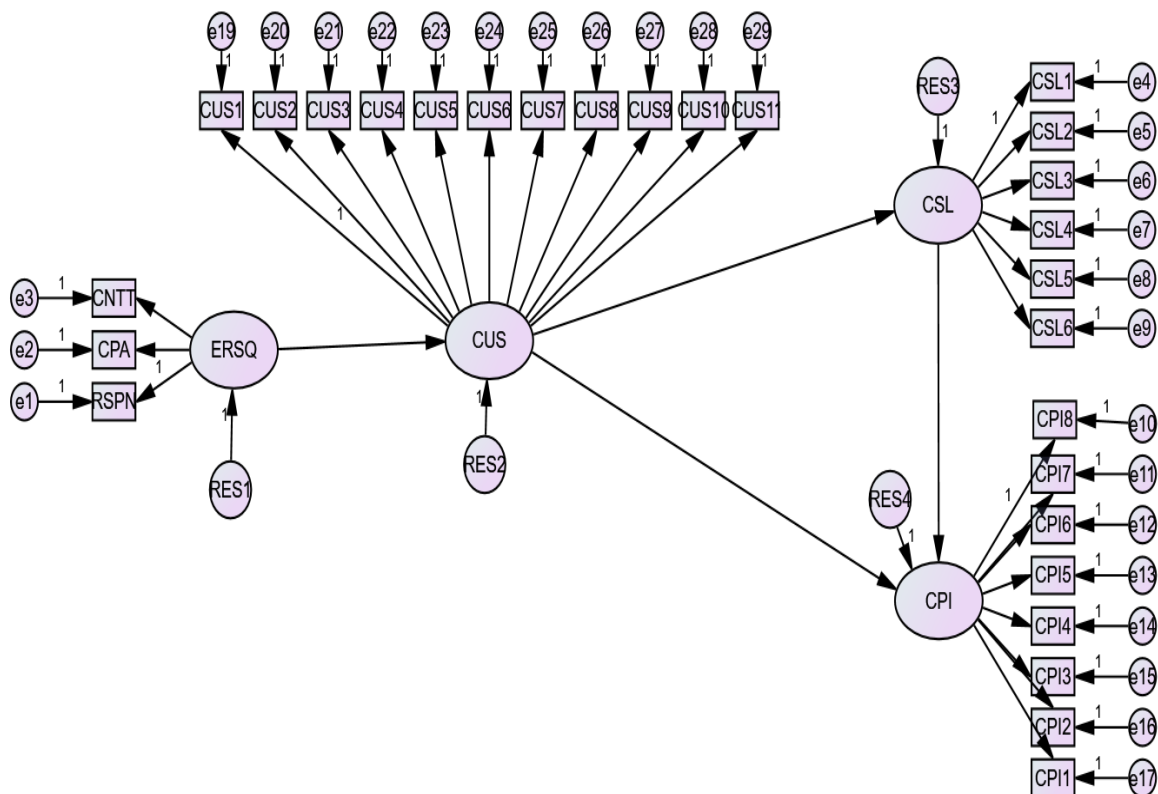


Table 4.41 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.838	0.877	5.800	0.809	0.855	0.078	0.000

H12: To study the mediation effect of CL in the relationship between CS and CI

This study examine the mediation effect of CL in the link between CS and CI. The results shows that CL partially mediates the Relationship between CS and CI. Based on the bootstrap results, it was found that the indirect effect of CS mediated by CL is. And the direct effect of CS on the CI is .71 in the direct model. Therefore hypothesis was accepted. ($\chi^2 / df - 6.637$, GFI – 0.834; RMSEA - 0.084; NFI – 0.863; CFI – 0.881; RFI – 0.849; AGFI – 0.802). Model fit indices of the structural mediation model are found to be good.

Figure 4.19

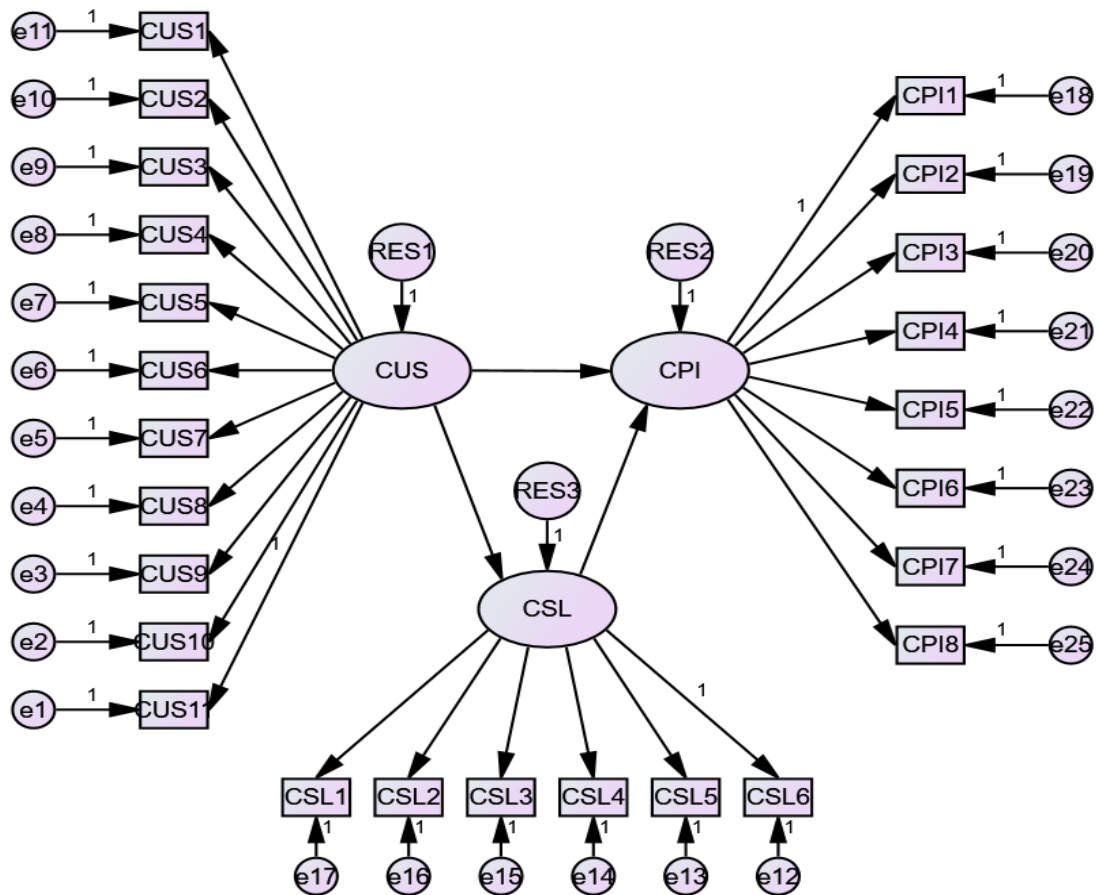


Table 4.42 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.834	0.881	6.637	0.802	0.863	0.084	0.000

H13: To examine the mediation effect of E-Recovery SQ in the relationship between SRS and CS

The study also examined the mediation effect of E-Recovery SQ in the relationship between SR & CS. The result showed that CL partially mediates the Relationship between CS & CI. Based on the bootstrap results, it was found that the indirect effect of CS mediated by CL. And the direct effect of CS on the CI is .71 in the direct model. Therefore the hypothesis was accepted. ($\chi^2 / df = 5.596$, GFI = 0.877; RMSEA = 0.076; NFI = 0.889; CFI = 0.907; RFI = 0.876; AGFI = 0.849). Model fit indices of the structural mediation model are found to be good.

Figure 4.20

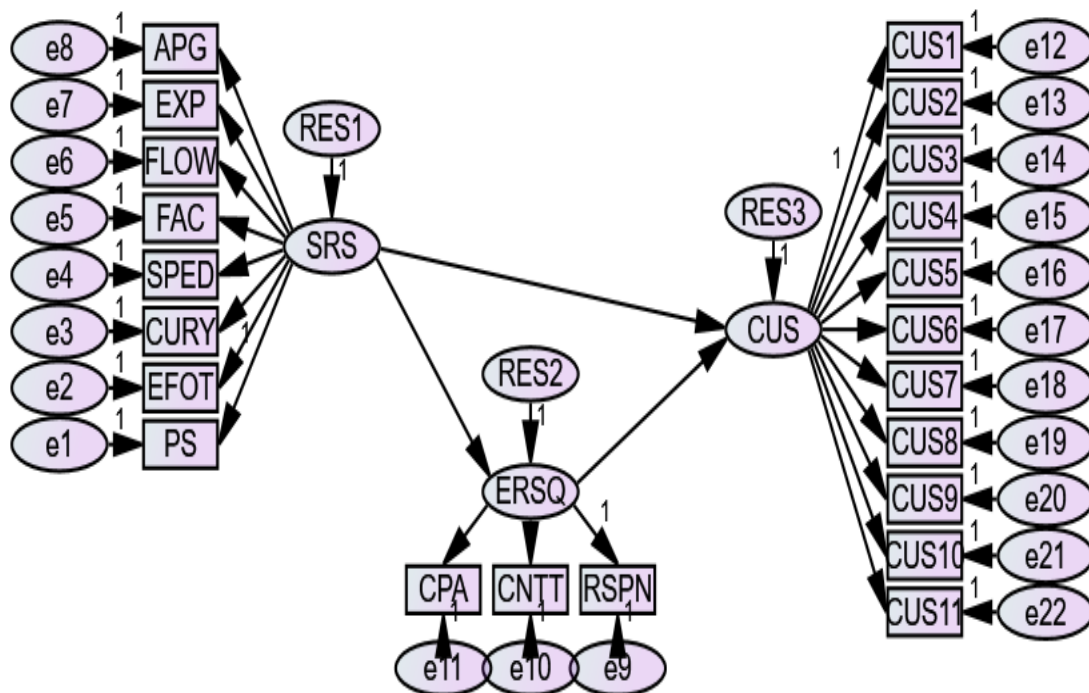


Table 4.43 Hypothesis Model Fit Index

GFI	CFI	CMIN/DF	AGFI	NFI	RMSEA	Pclose
0.877	0.907	5.596	0.849	0.889	0.076	0.000

Table 4.44 Hypothesis Results

H:1	There is a positive relationship between CL and CI	Supported
H:2	There is a positive relationship between CS and CI	Supported
H:3	There is a positive relationship between CS and CL	Supported
H:4	There is a positive association between E-Recovery SQ and CI	Supported
H:5	There is a positive association between E-Recovery SQ and CL	Supported
H:6	There is a positive association between E-Recovery SQ and CS	Supported
H:7	There is a positive association between SFM and SRS	Supported
H:8	There is a positive association between SRS and E-Recovery SQ	Supported
H:9	To examine the mediating role of CS in the interconnection between E-Recovery SQ and CL	Supported
H:10	To examine the mediating role of CS in the interconnection between E-Recovery SQ and CI	Supported
H:11	To examine the mediation effect of CL in the interconnection between E-Recovery SQ and CI	Supported
H:12	To study the mediation effect of CL in the relationship between CS and CI	Supported
H:13	To examine the mediation effect of E-Recovery SQ in the relationship between SRS and CS	Supported

CHAPTER-V

5.0 Findings - conclusions

This chapter presents the findings objective wise as laid out in the previous chapters

5.1 Objective Wise Findings

1. To study the e-Rec-SQ of online and traditional shopping electronic appliances
2. To examine the effect of SRS of electronic service appliances.
3. To validate SFM as a mediating effect of CS, CL, and image of electronic appliances.
4. To study the factors influencing e-Rec-Ser Qual CS, loyalty, and image of electronic appliances.
5. To propose a Structural model of SR to improve online and offline failures in electronic appliances of services.

5.1.1 To study the e-Rec-SQ of online and offline shopping electronic appliances

This study contributes to the e-Rec-SQ of online and offline shopping products through purchase electronic websites like (Amazon, Flipkart, etc...). Indian online shopping was emerged to beat western countries shopping. (Parasuraman et al., 2005) developed the recovery SQ items like (responsiveness, compensation, contact) to fulfill the customer buying products on online shopping preferences to satisfy the needs and wants of the customer in India.

This study proves that the Indian context E-Rec-SQ is very complex compared to western countries. Meanwhile in Indian shopping sites customer's demand to buy products is increasing day by day. But the products defects are more and recovery system is poor in India compared to other countries.

This study contributes to take the industry responsiveness of the employee honestly to treat the customer in a positive way. It also works to provide the relevant information to the customers who are facing problems in shopping and from the organization side to make immediate compensation benefits to the customer. More over organisations face raising the complaints to monitor and contact the customer promptly and politely, this type of measures are need to improve the industry; hence the CS rating will be grown.

5.1.2 To examine the effect of SRS of the electronic service appliances.

The aim of this research is to examine the impact of SF on consumer emotions and motivation. The research has focused on how to improve service providers SQ, and how to attract and maintain customers (Colgate & Norris, 2001). Significant factor that affects a customer's perception of a service supplier quality is the number, extent of the problems they encounter and how the provider handles these problems (Colgate & Norris, 2001).

SR involves those actions designed to resolve problems, alter negative attitudes of dissatisfied consumers, and to retain these customers ultimately and Service providers should make every effort to provide the customer with a positive experience the first time (Miller et al., 2000).

The objective of identifying 8 factors. These factors are SF management, CS, loyalty and CI. A thorough review of literature search generated 31 items. These items thoroughly discuss the retailers and delivery persons of the shopping cart. The output of factor analysis revealed that eigen values of 4 constructs were greater than one, which is in line with the other statistical studies (Kaiser, 1960). Since, all the factors have eigen value of more than one, none of the factors were eliminated from the study and thus the current study has 4 factors. The appropriateness of the analysis was also

checked through Kaiser-Meyer-Olkin (KMO) statistic of sampling adequacy. For a good factor analysis, KMO value must be greater than 0.5 (Tabachnick & Fidell, 1996). KMO value was .88, which is above greater than 0.5 and hence, the sample was adequate.

Thus the identified 8 factors are tested statistically through EFA and then CFA was done to purify the items. Both the EFA and the CFA resulted in 8 factors. The findings cannot be compared to any of the previous studies as the literature does not have any mention of the prior empirical studies. Future research can see if the 8 factors would be applicable for other industries other than the service sectors.

The contribution of this objective to take the responsibility of the employee to apologize the customer to share correct information to the customer, follow-up is very vital role to treat the customer facing issues in online and offline shopping sites. The recovery strategy is one the major item to retain the customer politely. When the organisation provides good explanation to the customer, that customer gives good rating to the shopping site. Hence to facilitate good environment create to the shopping site. Though the employee to give speed of response to the customer and recovery treats in time, another courtesy represents positively correlate with CS in SR concern. The customer service representatives with the authoritative results from the customer, post recovery satisfaction to implicate the positive effort to create the online shopping enhancement. Finally problem solving involves the main effect of SRS in shopping sites.

5.1.3 To validate SFM as a mediating effect of CS, CL and CI of electronic appliances.

This investigation to validate the mediation effect of CS, loyalty in the association between E-Recovery SQ and CI. The results show that CS partially mediates the Relationship between E-Recovery SQ and CI.

The objective of identifying 4 factors. These factors are SF management, CS, loyalty and CI. A thorough review of literature search generated 33 items. These items thoroughly discuss the retailers and delivery persons of the shopping cart. The results of factor analysis revealed that eigen values of 4 constructs were greater than one, which is in line with the other statistical studies (Kaiser, 1960). Since, all the factors have eigen value of more than one, none of the factors were omitted from the study and thus the current study has 4 factors. For a good factor analysis, KMO value must be greater than 0.5. KMO value was .93, which is above higher than 0.5 and hence, the sample was adequate.

Thus the identified 4 factors are tested statistically through EFA and then CFA was done to purify the items. Both the EFA and the CFA resulted in 4 factors. The findings cannot be compared to any of the previous studies as the literature does not have any mention of the prior empirical studies. Future research can see if the 4 factors would be applicable for other industries other than the service sectors.

5.1.4 To study the factors influencing on e-Rec-SQ of CS, loyalty, and CI of electronic appliances.

The study scrutinize the mediation effect of CS, loyalty in the link between E-Recovery SQ and CI. The results showed that CS partially mediates the relationship between E-Recovery SQ and CI. The objective is investigated through qualitative and quantitative research. Qualitative research is conducted through of literature review, selection of

factors and item generation. The review of literature provided insights into the research gaps. Quantitative research refers to the empirical investigation through statistical methods. The current study involved appropriate statistical techniques to measure the observed phenomena.

Final study consisted of 36 items, through which 900 responses were collected. Responses were collected in person and through online questionnaire administration. After a careful observation, 100 responses were omitted due to incomplete data and therefore the number of responses for the final study is 800. ($\chi^2 / df = 5.800$, GFI - 0.838; RMSEA - 0.078; NFI - 0.855; CFI - 0.877; RFI - 0.842; AGFI - .0809). Model fit indices of the structural mediation model are found to be good. . Based on the bootstrap results, it was found that the indirect effect of E-Recovery SQ mediated by CS is .41 and the direct effect of E-Recovery SQ on the CI is .70 in the direct model. Therefore the hypothesis is accepted.

5.1.5 To propose a Structural model of SR to improve online and offline failures in electronic appliances of services.

The measurement model depicts relationship between the constructs and the variables measuring these constructs; the structural model depicts the relationship between the constructs. Initially, CFA is performed to confirm variables that measure a construct along with variance and co-variance characteristics in a measurement model after that these constructs are combined to form an overall structural model where the hypothesized relationship between the constructs is tested.

The estimation of E-Recovery SQ model is carried out in two stages as per the recommendations of (Anderson & Gerbing, 1988). First stage, model was estimated, and the second stage, model was fixed to estimate the structural model.

This study indicates the direct paths from E-Recovery SQ, CS, and CI resulting in CL are significant with p-value < 0.00. Another variable labeled SRM also found to have a significant effect on E-Recovery SQ with p-value 0.00, and the loading is 0.957. Variable SFM has a significant effect on SRS with p-value 0.00, and the loading is .092. Indirect path estimates were tested from independent variables, namely E-Recovery SQ resulting in CL mediated by CS, and CI Results indicate that all the paths were significant. The study verified the goodness of fitness using the maximum likelihood estimation method (Arbuckle, 2007) to execute the model. It is conducted to know whether the model is having a good fit or not. The model was assessed by the following criteria: $\chi^2/df < 3$ (Bentler & Bonett, 1980) GFI > .8 (Seyal, Rahman, & Rahim, 2002). As recommend (Bollen, 1989) NFI and CFI ≥ 0.9 and RMSEA should be near to 0.1 (Browne et al., 1993). All the model fit indices are showing a good fit with $\chi^2/df = 3.294$, CFI = 0.902, GFI = 0.851, NFI = 0.866, and RMSEA = 0.054. Finally the structural equation model is fit for all factors like SF management, SRS, E-Recovery SQ, CS, CL and CI. Other related SR research they used multilevel analysis, nobodies are used structural model. in Indian contest this was the first study to conduct Numerous constructs to test the purification of reliability, validity, exploratory factor analysis, confirmatory factor analysis and structural model in online shopping sites. This type of model to test and see other industries like healthcare, manufacturing, supply chain etc..

5.2 Contributions of the Study

C.-C. Chang (2008) and Kolesar and Wayne Galbraith (2000) noted that SF recovery is especially challenging for online retailers due to the impersonal nature and lack of personal assistance in the e-service environment. This results in a higher likelihood of negative emotions being experienced by customers in the event of failure. In online

shopping, with no physical presence of service providers, human interactions are minimal, and SR strategies are more challenging. Consequently, research of this nature is critically important to bridge the gap in the literature. To provide an understanding of the underlying factors that cause customer switching behaviour in the Indian online shopping, and to interpret this based on a more suitable framework, the thesis adopted customer perspectives of online SFs and recovery strategies considered effective for correcting these failures.

Another contribution is that the present study advances research in the area of SF and recovery management by adopting the developing framework extensively and by providing empirical evidence that the use of technology-mediated interactions with service employees, like engaging in virtual live chatting conversations, emails, instant messaging and WhatsApp messaging, means an effective online recovery strategy which addresses the customer's need for self-esteem. Consumers can perceive differences in effort and empathy of SR (SR) efforts (even when those efforts are virtual), and that those differences in recovery types can impact on satisfaction, WOM, and repurchase intentions. Service firms should use such technological advancements to their advantage to decrease the risks associated with SFs.

The above findings suggest that the way a company's website is designed impacts on customer responses to unsatisfactory online service encounters. Additionally, the findings provide support to evidence (in an offline context) that customers can actively participate in offline SR encounters and can become co-creators of online SR (e.g.(Dong, Evans, & Zou, 2008; Heidenreich, Wittkowski, Handrich, & Falk, 2015; Roggeveen, Tsiros, & Grewal, 2012). As a result, these co-created employee-customer interactions form a rich source of information about the recovery process itself. If customers often demand recoveries that fall outside of the SR system's guidelines, these

insights might be used to refine the recovery system. Research into online SR management should, therefore, take into consideration the roles of website design and customer participation in the delivery of SR.

5.3 Managerial implication

Van Vaerenbergh, Varga, De Keyser, and Orsingher (2018) suggested that managers can utilize the mixture to assess current organizational reactions to SF and they may also use the synthesis in their employee training programs to confirm comprehensive coverage of the prospective organizational responses to SF.

Will there has been much research on the importance of SR in the fields of or other fields there is also research on the importance of meeting consumer expectations (Shankar, Urban, & Sultan, 2002; Spreng, Harrell, & Mackoy, 1995). Due to growing role of the Internet SR has also moved to online shopping landscape. It understood that the modern and traditional shopping environment to will reach expectations of customers who understand that it is of the highest importance than ever before.

For theory Based on the suggestions, the given tactic for SR (SR) was recommended:

5.3.1 Plan to react with in 1 to 2 days

Buyers have hug expectations towards feedback quickness from industry, specially those who compline above the modern shopping sites. To satisfy traditional shoppers and meet there assumption companies must aim to respond within 1 to 2 days.

5.3.2 Apology complaints has been carefully read

Forgiveness is more likely to expect the item in SR. the apology should be clear at the beginning of the reaction form patron grievance is being taken actively. Imperative that

company lead the entire feedbacks. Online consumers high predictions towards the companies response nature has industry pay attention to a variety online reactions.

5.3.3 Prefer using new product as repayment

Companies should prefer to use a coupon which that provides a new product that is refunded on or discount. Most of the modern and traditional retailers with the latest product and receipt of compensation. By using voucher or innovative product to be paid back, to convenience the buyer of the company, which also provides a fresh opportunity.

5.4 Limitations

- ❖ There are few limitations to the present study and it has been operated on-line and the answer is that most of them are between the ages of 21-30.
- ❖ The results in this circumstances may have particularly affected the willingness to protest in an online.
- ❖ Another limitation is the fact that, a scenario-based research, the scenario that affect certain response results may not be realistic, experienced.
- ❖ Due to limitations of time and resources, the scenario is not only about the daily purchaser goods industry.

5.5 Scope for Further Research

The study is an attempt to emphasize the SR effect on CL through CS in the online shopping part. The impact of specific substantial variables and their impact in forming SR and failure need to be explored further. This study does not isolate the population sample into different locations geographically. For example, an individual who resides in a tier two cities (like Visakhapatnam, Vijayawada, Ahmedabad, Pune, Nagpur, and Trivandrum so on) will have a distinct perception and presumption about different services provided by organized retail, attributing to the diverse culture, climate, education level and some other constructs.

As mentioned in the study the size of sample was small compare to overall population. The sampling technique used to collect the data from retail consumers is convenience sampling. The scope of future research may practice a random sampling by including a large sample, which will help to generalize the findings. In this study, the data was collected prominently from the Indian cities like Delhi, Mumbai, Hyderabad, Bangalore, Chennai, and Kolkata.

This study was confined to the offline retailing, and online shopping sites. This study has not considered the insights of online shopping service delivery logistics mediators like EKART and GATI of Flipkart and Amazon. There was a huge opportunity to introduce Drones technology adoption to introduce to service the products to home delivery in India. The concept on retail SR should be connected with customer retention & brand equity to get more wisdom into the marketing process of the shopping environment. Further research attempt to extend the survey of the rapport between tire two cities & remote places in term of culture issues, shopping domain, which are missing in this study.

This study should depicted across other service organizations & recovery options to ensure that the results are prosperous.

The future research may include the new technologies likely to deliver the products shipping to introduce Drone in India. Likewise, how to reduce failure to find out the better solution of the company to monitor the internet of things will adapt to minimize failures on online shopping sites. Continues monitoring is a significant factor to follow the online shopping complaints.

5.6 Conclusions

- All dissatisfied shoppers do not complain
- Most customers complain directly to the frontline employees
- Dissatisfaction may result in switching the store
- WOM is common
- There are tendencies on the SR paradox to exist
- Satisfied customers spread PWOM when being extraordinarily treated
- Consumers are affected by PWOM to some level
- Well performed SR creates a positive attitude towards the employee & the store, creating emotional loyalty exist.

5.6.1 SR recommendations

The recommendations are shaped to the three websites examined in this thesis in line with the two classifications in the Findings section. To remind, these two classifications were to differentiate the main reason for the complaints (to be service related or to be product related) and the root of the problem (originated from the company's policies themselves or from another company's policies that the initial company is working with).

5.6.2 Recommendations for SFs

For the service related problems as opposed to the product related ones, the first suggestion is on the information chain side. It is observed that most of the no delivery complaints are due to a lack of knowledge inside the company regarding the situation of their inventories at the time that the customer places the order. Therefore the company gives a date of delivery to the customer, followed by no delivery afterward. There are two different points where this creates a problem for the customer. First, the fact that the system lets the customer place an order on a product that doesn't actually exist in the inventory at the time is one leg of

the problem. Second, it seems that the Company is not doing a necessary second control over the orders. Most of the customers claim that they were informed about the situation of their order (that they will not be receiving the product) only after they have reached the customer service line upon not receiving the product by the deadline stated on their order. Therefore the second the problem created in a slightly larger time interval where the company has had a chance to realize the system's mistake and inform the customer about the order.

The company may try to improve its web system in case the first leg of the problem is caused by the system's inability to recognize different orders when they are placed immediately one after the other in the system. In this case, it can be a product that a potential customer is interested in might have been purchased 1-2 seconds before the potential customer placed the order. This is likely to create a false order receipt in the system to be sent to the customer. If this is related to the current technology of cyber shops then the company should try to address and correct these possible mistakes on the second leg. A second control mechanism can be created either online or behind the web to check the order of the purchases and the inventory status to meet the orders. Therefore the company may catch a chance to correct a mistake before it creates another the base for customer dissatisfaction.

Regarding the problem of Late delivery on the service side, we conjecture that if this is a service-related problem then it must be that the company is placing the orders in the Flipkart order logistics mediator EKART and Amazon were GATI without respecting its deadlines. When this is the case, the company might remedy the situation by hiring more employees to work behind the web at the inventory. This would fasten the chain of processing orders and placing them in the EKART and GATI logistics delivery companies. Alternatively, the company may increase the frequency of its cargo usages in case this is an option. In the typical case, EKART and GATI logistic company should be visiting the inventory room to receive the packages by a prespecified number of times in a week. When this number of visits per period

is not often enough to meet the number of orders the company is receiving then this could be remedied by revising the agreement with the EKART and GATI logistics company to reset the frequency of visits.

For the wrong delivery complaints, we classify these as problems regarding SQ. We conjecture that the company employs labour to match orders with the products. Therefore increasing the number of employees working in this department may potentially solve the problem. Else, the problem might actually be caused by a lack of performance on the side of the employees. In this case, working through an evaluation the mechanism for those employees regarding product mismatches would provide a solution, according to us.

5.6.3 Recommendations for Product Failures

On the side of the product related problems, we conjecture that this is a deeper problem than the above ones. The company might be receiving its product in the specified condition from its suppliers in which case replacing it with an undamaged product would create a loss for the company. This is expected to lower the price of the product and the number of customers willing to purchase the product yet it will create a positive image for the company and might pay off on the side of CL and brand image in the future. We classify the low product quality complaints in this group and believe that letting the potential customers know of the situation of the product beforehand would be a valuable investment on the side of the firm. On the other hand if the problem caused due to the high expectations on the customer side and the product reflects its representation on the website, the company may choose one of the following two options. The first would be to provide an opportunity for the customer to send the product back or have it changed with another product possibly of the same brand. This would create a good image for the firm and could be counted as an investment in CL. The second option would be to state a warning during the order receipt that the company would not hold responsibility for

customer dissatisfaction regarding the product quality whenever the product reflects its picture on the web exactly. Therefore customers would be confident that the pictures in the web reflect the actual products and they might be directed to do their search regarding the brand names they are planning to purchase.

If the damage on the products mentioned in the complaints is found to be caused after the product left the inventory; it means that the responsibility is passed to the cargo Company. Therefore this is a problem that should be addressed between the cargo firm and the e-commerce firm. This might turn out to be a problem that is not completely under control. We know that there is always a risk of product damage in the courier. We would offer the company, in this case, to inform the customer of the situation politely and by script upon the receipt of a purchase order and replace the product with an undamaged one if possible. If the company is working with non-doubled inventories that they do not keep serials of each product they sell, then the company might state a Warning at the time of the order. The warning state that if damage happens to the product at the courier it might not be likely to replace the product with a new one due to Inventory limits. On the other side, the company may think of changing the logistic company it is working with or revising the terms of its agreement to decrease the risk of product damages in the future.

5.6.4 Recommendations for Company Oriented and Non-Company Oriented Failure

As for our second classification in company rooted versus out of company rooted problems, we would like to state a general approach scheme which we think would be useful for the firms. For the company rooted problems, we would suggest the company to first identify whether the problem is caused by a lack of labour force related skills or Lack of technology improvement. Then the company could proceed to calculate the expected cost of improving such a shortcoming in case if the improvement is possible. In this regard the second option is

to inform the customer of the likelihood of such occurrences and to make them sure that it is not a systematic mistake and its probability of happening is low enough. If the company finds out that the mistake is occurring quite often and deserves an investment in increasing the number of employees or in improving the technological possibilities, then we would suggest the firm should take the action.

For the out of company rooted problem, we think it is first useful to do a sector-wide research to see which other companies are used by the cyber shops mostly to meet their outsourcing needs. This way evaluating its options will be useful for the company at the first hand. Changing the partner company or changing the type of agreement are first type of remedies which we classify as short-run remedies here. In the long run if the the problem seems to be persistent the company might think of creating an internal unit and hence enlarge the company to deal with the task that the outsourced company is It is currently dealing. This is a very long run decision that needs to be evaluated carefully. For the short run solutions, we would offer the company to share the losses with the partner company or change its payment scheme in a way to let the partner company internalize any possible losses that are caused by its own lack of performance.

As examples to company oriented problems we classify gift card malfunctioning, money payback problem and misleading information problems. Gift card malfunctioning is a company oriented problem as we assume that these companies are suppliers of their own information technology systems. In this situation, the companies must state clear promises to customers and put the promises into practice without questioning. As we observe on the website where the complaints were recorded, most companies already respond to this problem thoroughly. As they have received several complaints regarding the gift cards, it seems that the companies have fixed that line of gift cards. Money payback problem is two-sided according to us. The issue should be handled well according to the guidelines stated to the customer as to which

responsibilities the companies hold regarding the products so that the customers can send them back when they wish to do so. Besides, the company may increase the number of finance staff to fasten the process. It is significant in terms of the profitability of the company to minimize the product take-backs as much as possible. We would suggest the company to take back the products when there is a wrong delivery.

The misleading information problem is mainly related to the gift card malfunction. According to the customers, the websites state promises which they do not put into practice later. The other reason for misleading information is the pictures of the products which are not reflects the real products.

To summarize, these online shopping site problems are mostly solvable by a few inner company measures. First of these is strengthening the communication between different departments such as sales, information, and inventory departments. The second the suggestion may be to revise the policies regarding the way the firm communicates with the potential customers such as revising which pictures to upload on the web regarding the products and which type information to give to the customer before and after the purchase has been made. For the out of company related problems, we would suggest the company to acknowledge the possibility of such a problem occurring and inform them customers accordingly, at the time of their purchases. This way there will certainly be an image improvement for the company which will then support its future enlargements and investments.

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**MEASURING ELECTRONIC RECOVERY SERVICE QUALITY OF ONLINE SHOPPING CUSTOMERS-
A STUDY OF SELECT CITIES IN INDIA**

The purpose of this survey is to explore the perception of Electronic Shopping Customers service Recovery quality. The questionnaire is designed to collect data which will be used purely for the academic (Doctoral Research) purpose. Please mark your personal feelings about the statements below that best describes the Electronic Recovery service quality. There is no right or wrong answer.

1. **Gender** Male/Female
2. **Age Group:**
 - a. Below 20
 - b. 21-30
 - c. 31-40
 - d. 41-50
 - e. 51-60
 - f. 60+
3. **Highest Qualification:**
 - a. 10th
 - b. Inter
 - c. UG
 - d. PG
 - e. Doctorate
 - f. Others
4. **Occupation:**
 - a. Govt Employee
 - b. Private Employee
 - c. Businessman
 - d. Unemployed
 - e. Student
5. **Do you shop (online) for:**
 - a. Electronics
 - b. Consumer Goods
 - c. Books
 - d. E-Recharge
 - e. Clothing
 - f. Movie Tickets
 - g. Travel Tickets
 - h. Only branded products
 - i. Others
6. **Did you face any service problems in online shopping**
 - a. Yes
 - b. No
7. **The following are some online sites. Are you aware of....? (tick on the site name)**
 - a. eBay
 - b. Flipkart
 - c. Amazon
 - d. Snap deal
 - e. Others
8. **Do you shop online because of...? (Mark all those apply)**
 - a. Easy access
 - b. Time saving
 - c. Daily deals
 - d. Free Shipment
 - e. Cash on Delivery
 - f. Others
9. **Do you spend Rs.....? For online shopping per month.**
 - a. Below 2000
 - b. 2000-4000
 - c. 4000-6000
 - d. 6000-8000
 - e. 8000 +
10. **Do you own a personal computer (PC)/ Laptop?**
 - a. Yes
 - b. No
11. **Reasons for using the Personal computer?**
 - a. Information searching
 - b. E-mail
 - c. Official/ Academic work
 - d. Social networking
 - e. Banking
 - f. Shopping
 - g. Playing games
 - h. Others
12. **Where did you face problems/difficulties after purchase?**
 - a. Payment failure
 - b. Delivery delay
 - c. Systems failure
 - d. Packaging failure
 - e. Product damage
13. **No of times you have encountered a service failure in the past six months.**
 - a. Zero
 - b. One
 - c. Two
 - d. Three
 - e. More than three
14. **In which city do you stay?**
 - a. Hyderabad
 - b. Chennai
 - c. Mumbai
 - d. Bangalore
 - e. Delhi

Please rate your favourite online shopping site on the following attributes:

1-SD (Strongly Disagree)	2-D (Disagree)	3-N (Neutral)	4-A (Agree)	5-SA (Strongly Agree)	
E-RecS-QUAL					
1.E- shopping service provides me with convenient options for returning items	1	2	3	4	5
2.E- shopping service handles product returns well	1	2	3	4	5
3.E- shopping service offers a meaningful guarantee	1	2	3	4	5
4.E- shopping service tells me what to do if my transaction is not process	1	2	3	4	5
5.E- shopping service takes care of problems promptly	1	2	3	4	5
6. This online shop offers returns and exchanges, refunds, discounts, free of postage and other means to deal with a service failure	1	2	3	4	5
7. The online shop offers compensations with goods or money	1	2	3	4	5
8. The online shop offers compensations for its mistake or my interest to deal with a service failure	1	2	3	4	5
9.E- shopping service provides a telephone number to reach the company	1	2	3	4	5
10.E- shopping service has customer service representatives available online	1	2	3	4	5
11.E- shopping service offers the ability to speak to a live person if there is a problem	1	2	3	4	5
Service Recovery Strategy					
Apology					
12.The company apologized to me for what had happened	1	2	3	4	5
13.The company expressed regret for the problem that has occurred	1	2	3	4	5
14.The company apologized for the inconvenience the problem had brought to me	1	2	3	4	5
15.The company apologized for what I have suffered because of the problem	1	2	3	4	5
Explanation					
16.The company explained why the service problem might have happened	1	2	3	4	5
17.The company explained what factors might have caused the problem	1	2	3	4	5
18.The company explained what might have gone wrong	1	2	3	4	5
19.The company provided a convincing explanation and the reason for the occurrence problem	1	2	3	4	5
Follow-up					
20.The company has contacted me to inform me about the status of my complaint	1	2	3	4	5
21.After solving the problem, the company contacted me to ensure that the problem has been solving completely	1	2	3	4	5
22.After handling the complaint, the company followed-up to make sure that everything is satisfactory	1	2	3	4	5
23.The company asked me to use the service to ensure that the problem has been entire solved	1	2	3	4	5
Facilitation					
24. company policies made it clear how to complain	1	2	3	4	5
25.It was easy to determine where to lodge my complaint	1	2	3	4	5
26.It was hard to figure out where to complain in this company	1	2	3	4	5

27.I did not face any difficulty in communicating my voice to the company	1	2	3	4	5
Speed of response					
28.The company reacted promptly to my queries	1	2	3	4	5
29.The company attended to the problem quickly	1	2	3	4	5
30.The company responded to my complaint promptly	1	2	3	4	5
31.Solving the problem did not take so long	1	2	3	4	5
Courtesy					
32.The service provider was friendly to me	1	2	3	4	5
33.The service provider was polite to me	1	2	3	4	5
34.The service provider showed respect to me	1	2	3	4	5
35.The service provider was patient with me	1	2	3	4	5
Effort					
36.The service provider devoted all his/her energy to handle my complaint	1	2	3	4	5
37.The service provider worked at his/her full capacity to handle my complaint	1	2	3	4	5
38.The service provider strives as hard as she/he can to succeed in dealing with the complaint	1	2	3	4	5
39.The service provider exerted herself/himself to the fullest to get the complaint resolved	1	2	3	4	5
Problem solving					
40.The service provider was able to answer my questions	1	2	3	4	5
41. The service provider had the required knowledge and skills to handle the problem	1	2	3	4	5
42.The service provider knew the solutions to the problem	1	2	3	4	5
43.The responsible employee solved the problem efficiently	1	2	3	4	5
Process failure					
44.Slow delivery or forgot to deliver	1	2	3	4	5
45.The place of recipient is not convenient or mistakenly addressed	1	2	3	4	5
46. the order is cancel due to out of stock	1	2	3	4	5
47.Service operating system has failed	1	2	3	4	5
48.payment system is in slow response	1	2	3	4	5
49.Error occurred in the payment system	1	2	3	4	5
50.customer service staff of e-store are difficult to contact	1	2	3	4	5
51. customer service staff of e-store have poor attitude	1	2	3	4	5

1-VD (Very Dissatisfied)	2-D (Dissatisfied)	3-N (Not sure)	4-S (Satisfied)	5-VS (Very Satisfied)
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Customer Satisfaction	VD	D	N	S	VS
51. I enjoy online shopping	1	2	3	4	5
52. I am satisfied with the service provider by the shopping site	1	2	3	4	5
53. Wide variety of products available	1	2	3	4	5

54. The site affairs of discounts day festival season	1	2	3	4	5
55. Quality of product purchased through online shopping is good	1	2	3	4	5
56. Packaging of product is attractive	1	2	3	4	5
57. Payment process is secured	1	2	3	4	5
58. Delivery of the product on time	1	2	3	4	5
59. Order products and supply products are different.	1	2	3	4	5
60. I get the product at an economical price than purchasing at the shop physically of damage goods.	1	2	3	4	5
61. Overall, I am satisfied with the site	1	2	3	4	5

Customer Loyalty					
62. When I need to make a purchase, this website is my first choice	1	2	3	4	5
63. I like using this website	1	2	3	4	5
64. To me, this site is the best e-shopping website to do business with	1	2	3	4	5
65. I believe that this is my favourite e-shopping website	1	2	3	4	5
66. I would recommend the website to those who seek my advice about such matters	1	2	3	4	5
67. I would encourage friends and relatives to use the website	1	2	3	4	5
1-VL (Very Low)	2-L (Low)	3-N (Neither low-Nor High)	4-H (High)	5-VH (Very High)	

Corporate Image					
	VL	L	N	H	VH
68. Please rate reputation of your favourite online shopping site	1	2	3	4	5
69. Please rate prestige of your favourite online shopping site	1	2	3	4	5
70. Please rate the reputation of products and services of the online site	1	2	3	4	5
71. The company is innovative and pioneering.	1	2	3	4	5
72. The company is open and responsive to consumers.	1	2	3	4	5
73. The company is persuasive and shrewd.	1	2	3	4	5
74. The company does business in an ethical way.	1	2	3	4	5
75. The company is successful and self-confident.	1	2	3	4	5

76. Overall, my online shopping experience on this site?	Bad	Poor	Good	Very Good	Excellent
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I receive following comments from those who don't shop online.

.....

Any Suggestions for Online Shopping Service Improvement:

.....

Thank you.

Annexures

Dimensions of Quality

Dimensions	Descriptions
Performance	meeting the first performance of a product and service'
Features	additional value-added benefits of a product and service
Reliability	consistent performance of a product and service
Durability	the usefulness of a product repeatedly
Serviceability	resolves post-sales customer problems
Conformance	products and service's ability to satisfy a customer
Perceived quality	Customer perceived performance of a products or services based on experiences
Aesthetics	sensory characteristics of a product/service such as feel, appearance, sound, etc

Types of service quality

Literature	Scale name	Measurement dimensions
(Zeithaml, Parasuraman, & Malhotra, 2001)	E-SQ	Accessibility, Navigation, Flexibility, Reliability, Price, Aesthetics, Efficiency, Personalization, Privacy, Responsiveness, Assurance
(Yoo & Donthu, 2001)	SITE QUAL	Practicality, Design, Processing Speed, Safety
(Francis & White, 2002)	PIR QUAL	Product attributes, Function, Ownership, Security, Transportation, Customer service
(Loiacono, Watson, & Goodhue, 2002)	WEBQUAL	Information matching, Understanding, Completion, Reaction time, Picture, Operation,

		Creativity, Interaction, Trust
(Barnes & Vidgen, 2002)	WEBQUAL	Usability, Design, Resonance, Trust
(Wolfenbarger & Gilly, 2003)	e-Tail Qual	Design, Privacy, Reliability, Customer service
(Parasuraman, Zeithaml, & Malhotra, 2005)	E-S-Qual	Availability, Privacy, Execution
(Parasuraman et al., 2005)	E-RecS-Qual	Responsiveness, Compensatory, Contact
(Bauer, Falk, & Hammerschmidt, 2006)	eTransQual	Function/Design, Process, Reliability, Enjoyment, Responsiveness
(Cristobal, Flavián, & Guinaliu, 2007)	P-e-SQ	Design, Guarantee, Order management, Customer service
(Sohn & Tadisina, 2008)	e-SQ	Trust, Usability, Web content and functionality, Reliability, Communication, Delivery
(Ding, Hu, & Sheng, 2011)	e-SELFQUAL	Perceived control, Service convenience, Customer service, Service fulfillment

SR

Strategies

Authors	Making an apology	Problem-solving	Explanation	Speed of recovery	Empathy	Compensation	Follow-up	Facilitation	Courtesy	Effort
(Bell & Zemke, 1987)	√			√	√	√	√	√	√	√
(Bell & Zemke, 1990)	√	√	√			√	√			
(Boshoff, 1999)	√		√	√	√	√	√	√	√	√
(Levesque & McDougall, 2000)	√	√				√	√			
(Ennew & Schoefer, 2003)	√			√	√	√	√	√	√	√
(Wirtz & Mattila, 2004)	√			√		√				
(Lewis & McCann, 2004)	√	√	√		√	√				
(Boshoff, 2005)	√		√		√	√	√			
(Duffy, Miller, & Bexley, 2006)	√	√				√				
(Lin, 2006)	√	√				√				
(Kim, 2007)	√	√			√	√				

(Liao, 2007)	√	√	√	√	√	√				
(Johnston & Michel, 2008)	√	√			√	√				
(Battaglia, Borchardt, Afonso Sellitto, & Medeiros Pereira, 2012)	√	√		√	√					
(Chou, 2015)	√					√				
(Qiao et al., 2015)	√	√	√	√	√	√	√	√	√	√
(Park & Park, 2016)	√		√	√	√	√				
(Jung & Seock, 2017)	√					√				
(Sciarelli, 2017)	√	√	√	√	√	√	√	√	√	√

The above table Main strategies of SR



A STUDY ON SERVICE RECOVERY QUALITY OF ELECTRONIC SHOPPING CUSTOMERS IN INDIA

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Abstract

Indian organized retail sector is growing at a faster pace and gaining popularity. Indian Brand Equity Foundation (IBEF) reveals that the current market size of Indian retail industry is about US\$ 520 billion with for growth rate 14 to 15 percent annually by 2018 the Indian retail sector is likely to grow at a CAGR of 13% to reach a size of US\$ 950 billion. Developments in Information Technology have enabled online Retail sector that empowers customers to order products, conduct transactions without the need to interact physically with the retailers. In recent years the online shopping industry has gained popularity to the point where certain categories of customers would consider buying electronic products online rather than visiting the stores. Conventionally the physical location of a store is seen as a source of competitive advantage. Online Retailing service sites provide virtual shopping space to the customers. Online Retail services is gaining momentum in India, with internet penetration improving in the country and smart phones becoming affordable along with changing life styles and preferences of customers. Although online shoppers prefer the convenience and choice available in online shopping, certain issues raised due to occurrence of service failure. The proposed study attempts to measure the service recovery and failure process of electronic goods in Indian retail channels.

Key Words: Service Recovery, Customer Satisfaction, E-Shopping, Service Failure.

Introduction to Indian Retail Sector

Retailing has played a major role the world over in increasing productivity across a wide range of consumer goods and services. In the developed countries, the organized retail industry accounts for almost 80 percent of the total retail trade. In contrast, organized retail trade accounts for merely 8-10 percent of the total retail trade in India. This highlights a lot of scope for further penetration of organized retail in India.

The sector can be broadly divided into two segments: Value retailing, which is typically a low margin-high volume business (primarily food and groceries) and Lifestyle retailing, a high margin-low volume business (apparel, electronics, footwear, etc.). The sector is further divided into various categories, depending on the types of products offered. Especially with India being one of the world's youngest markets. India has an internet user base of about 140.1 million as of Jan 2015 The penetration of e-Tailing is low compared to markets like the United States and the United Kingdom.

AT Kearney 2014 Global Retail Development Index (GRDI) said the Indian retail industry is one of the most vibrant industries in the country. It is currently ranked at 20th position among identified the top 30 developing countries.

India remains an appealing, long-term retail destination for several reasons starting with its demography – half of India's population is less than 30 years of age and roughly one-third of the population lives in cities. The disposable income of Indians is increasing - allowing them to spend more and try new products, brands, and categories.

As online medium of retail business is gaining more and more acceptance, there is a tremendous growth opportunity for retail companies, both domestic and international.

Retail Market Size

According to the Department of Industrial Policies and Promotion (DIPP) said the Indian retail industry in the single brand segment has received FDI equity inflows to the tune of US\$ 159.17 million in the period April 2000—September 2014.

Indian Brand Equity Foundation (IBEF) reveals that the current market size of Indian retail industry is about US\$ 520 billion with for growth rate 14 to 15 percent annually by 2018 the Indian retail sector is likely to grow at a CAGR of 13% to reach a size of US\$ 950 billion.

ASSOCHAM-PwC study report that India is one the fastest growing Electronic shopping markets in the world. The average annual spending of, online shoppers is around Rs 6,000. Online apparel sales continue to capture a greater share of Indian retail ecommerce as category along with the computer and consumer electronics sector, fuelling the overall market growth, the smartphone and tablet shoppers will be strong growth drivers.

Measurement of E-Shopping through Service Recovery (SR) on Electronic Appliances-A Study in Select Cities in India

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