COMPETITIVE INTELLIGENCE PRACTICES IN INDIAN INDUSTRIES AND ITS RELATIONSHIP WITH PERFORMANCE OF THE FIRM

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Dated:- ……

CERTIFICATE

This is to certify that I have carried out the research embodied in the present thesis for the full period prescribed under the Ph.D. ordinance of the University.

To the best of my knowledge, I declare that no part of this thesis was earlier submitted for the award of research degree of any University.

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The present work as above has been carried out under my supervision and the declaration as above by the scholar is correct to the best of my knowledge.

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DEAN

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LIST OF ABBREVIATIONS

AGFI	**:**	Adjusted Goodness of Fit
AMOS	**:**	Analysis of Moment Structures
ASV	**:**	Average Shared Variance
AVE	**:**	Average Variance Extracted
BI	**:**	Business Intelligence
CAGR	**:**	Compound Annual Growth Rate
CEO	**:**	Chief Executive Officer
CFA	**:**	Confirmatory Factor Analysis
CFI	**:**	Comparative Fit Index
CI	**:**	Competitive Intelligence
CIA	**:**	Central Intelligence Agency
CR	**:**	Construct Reliability
EFA	**:**	Exploratory Factor Analysis
EIU	**:**	Economic Intelligence Unit
FDI	**:**	Foreign Direct Investment
GDP	**:**	Gross Domestic Product
GM	**:**	General Motors
GOF	**:**	Goodness of Fit
HEI	**:**	Higher Education Institution
MCAR	**:**	Missing Completely at Random
MITI	**:**	Ministry of Trade and Industry
MSV	**:**	Maximum Shared Variance
NCR	**:**	National Capital Region
NFI	**:**	Normed Fit Index
NGO	**:**	Non-Governmental Organisation
R&D	**:**	Research and Development
RBV	**:**	Resource Based View

RFI	**:**	Relative Fit Index
RMR	**:**	Root-Mean Square Residual
RMSEA	**:**	The Root Mean Square Error of Approximation
SCIP	**:**	Society for Competitive Intelligence Professional
SPSS	**:**	Statistical Package for Social Sciences

ABSTRACT

In today's rapidly changing business world, organizations face fierce competition not only from the physical market but also from the infinite electronic market space. It is difficult to determine at what time a new competitor is entering the market and what new products they may launch. The Global Intelligence Alliance (2007a) recommended a strong need for intelligence: Today's business environment demands a comprehensive system for managing risks in the external business environment. The forces of globalization have not been as intense as they are at present. Most business executives feel that these forces of change will have a major impact on their organizations. According to a CEO's survey conducted by Accenture and The Conference Board in 2001in the Asia-Pacific region, the biggest challenge is dealing with the overwhelming changes and levels of competition. Hence dealing with intense competition in the internet world seems to be the most concerned business issue in the new century.

The role of the Indian economy in the international trade has grown, (Contractor, Kumar, & Kundu, 2007; Johnson & Tellis, 2008)but "much remains unknown about the competitive capacities of Indian firms as to how this market will evolve in future" (Ablett, et al., 2007). In such an unclear state, competitive intelligence becomes a vital tool for strategic planning and competitive advantage. Therefore, it is imperative to understand how Indian industries practice competitive intelligence and whether the firms that are practising competitive intelligence performing well or not. The study of all the industries in one research would not possible because of diversity among the Indian industries in terms of a number of players and competition so the researcher

chooses the retail industry for the purpose of the study. The Indian retail industry has high competition; data based decision making and high usages of technology. The researcher formulates the following objectives: to analyze the current status of Competitive Intelligence in Indian Retail Industries; to investigate the role of Competitive Intelligence in strategy formulation of Indian Retail Industry and investigate the relationship between Competitive Intelligence and business performance of the Indian retail firms.

To investigate these questions, the researcher used Calof and Dishman's Model of CI to measure the CI capabilities of the firm and conducted a field survey in the Delhi-NCR region. According to Calof and Dishman's Model CI, capability of a firm depends upon the Competitive Intelligence process and Competitive Intelligence context. Competitive Intelligence process consists of the following three constructs: Planning and Focus Collection, and Communication and Analysis. Competitive intelligence context consists of the following four constructs: Awareness, Internal information, Formal Infrastructure and Employee Involvement.

Calof and Dishman's Model of CI is tested by CFA (Confirmatory Factor Analysis). It is concluded that Indian retail industry follows the competitive intelligence process followed as identified in Calof and Dishman's Model but CI context has only three constructs -Internal Information and Formal Infrastructure are not considered different constructs in the Indian retail industry.

In India, the retail firms use competitive intelligence process at an intermediate level. In the comparison of three factors of CI, Indian firms are competitively good at Communication and Analysis but weak at Planning and Focus. Indian retail firms in

terms of competitive intelligence context have an advanced level of Awareness, intermediate level of Internal Information and Formal Infrastructure, and Employee Involvement.

The Indian retail firms give importance to the use of competitive intelligence for decision making, but the frequency for the use of competitive intelligence for strategic decision making is low.

The competitive intelligence capability and business performance are not independent for Indian retail firms and there is a statistically significant relationship between CI capability of the firm and business performance of the firm.

Keywords: Competitive Intelligence, Business Performance, Indian Retail Industry, Confirmatory Factor Analysis.

CHAPTER 1

INTRODUCTION

This chapter discusses the introduction to the problem, the concept and significance of Competitive Intelligence. It describes the comparison between Competitive Intelligence and other similar concepts. This chapter also discusses the scope of the study, the concept of retailing, Global Retail Industry and Indian Retail Industry. It also describes the aim and structure of the research report.

1.1 Introduction to the Problem

The business environment is no longer static; it is extremely dynamic. Owing to social networks, consumers can exchange information faster than ever before. New development of technology is helping by creating new industries. Online market places are creating global competition. The survival of any organization can be linked with a Formula One racing car, which works inside an exceptionally perilous and delicate condition, which is consistently evolving. The triumph of the hustling vehicle relies on the data and information collected by means of sensors all through the vehicle and transmitted to the driver and team. Their speed of reaction to the data and information decides how well the vehicle performs in the race. In a similar setting the survival, achievement and performance of the retail firm rely upon the nature of its sensors, the knowledge sustained and how well do the management react to the insight information(Parlby, 1997).

Companies have been using different processes and techniques to study the business environment since industrialization. Earlier companies were using industrial espionage to

collect the information. In 1800s China had a monopoly in tea productions. The East India Company hired the botanist Robert Fortune to transfer seeds, plants and secrets of the trade from China to British ruled India within a period of 25 years Indian tea production surpassed the production of China. In the year 1993 GM held responsible Volkswagen for industrial espionage. The head of the production for GM's Opel division joined the rival firm Volkswagen with seven other executives. General Motors asserted that its business secretes were utilized at Volkswagen. At last, the organizations agreed to one of the major settlement of its category: General Motors dropped its claims in exchange of Volkswagen's guarantee to procure $1 bn of General Motor's car component in seven years and Volkswagen had to pay General Motors $ 100 million (Bloomberg, 2011). Over a period of time, methods of collecting information have been changed a lot. In 2009 programmers stole exclusive data from the U.S and European Energy Companies. Shell, Exxon Mobil and BP had their geographical maps hacked. These maps had information about potential oil reserve (The Richest, 2015).In the present business environment, industrial espionage is illegal and unethical practice. Companies have a huge risk of using industrial espionage as a method of information collection. In an environment where spying is not feasible, companies use Competitive Intelligence to crunch the thirst for information. Competitive Intelligence an increasingly popular business practice helps to monitor the competitive environment of a company. A systematic competitive intelligence process can assist an organization to take advantage of the huge amount of publicly available information regarding one's competitive environment.

In today's rapidly changing business world, retail organizations face fierce competition not only from the physical market but also from the infinite electronic market space. It is difficult to determine when new competitors may enter into a

market and what new products they may launch. Past research advocates a strong requirement for intelligence. The present business conditions require complete coordination for overcoming dangers in the outside business. Business executives have the opinion, that these powers of transformation will majorly affect their organizations (Global Intelligence Alliance , 2007a).According to a CEO's survey conducted by Accenture and The Conference Board in 2001in the Asia-Pacific region, the biggest challenge is dealing with the overwhelming changes and levels of competition. Hence, to deal with the intense competition in the internet world seems to be the most concerned business issue in the new century. According to the Global Intelligence Alliance (2007b),"87% of the establishments have some structure of intelligence capability with a formal system meant for analyzing and collecting information regarding the external business environment" (Global Intelligence Alliance, 2007b).The uncertainty in business environment urged companies to streamline the decision making process among partners with just-in-time alerts and feedback so that executives have competitive intelligence to respond to market changes in a real time manner. Key decision makers require a real-time business system to gather intelligence on industry trends and market changes.

In 1991 India opened its door to globalization. As a result, India's position in the international market has improved (Johnson & Tellis, 2008).India's FDI policy has been progressively liberalised. The Union Government of India through its policies is liberalizing and reforming the retail sector. In astep by step moves, India has opened up the retail sector to overseas players. In such an uncertain situation, Competitive Intelligence becomes an essential means for strategic forecast and competitive gain. Therefore, it is essential to comprehend, how Indian retail firms practice Competitive Intelligence.

1.2 The Concept of Competitive Intelligence

CI is moral and legal practices for collecting information from open sources on the competitive environment to apply in organisational decision-making. In business and academics there are many similar terms for competitive intelligence used by different researchers, for example: Environmental Scanning (Aguilar, 1967; Saxby, Nitse, & Dishman, 2002), Business Intelligence (Pearce, 1976) , Strategic Intelligence (Montgomery & Weinberg, 1979), Competitor analysis (Ghoshal & Westney, 1991) Marketing Intelligence(Kelley, 1965).Market Intelligence (Maltz & Kohli, 1996). These terms sound as similar terms but notthe same exactly. The difference between these terms is based upon the scope of information collection.

1.2.1 Meaning of Intelligence

Intelligence is not about data collection but It is the ability to increase the efficiency of the organisation through data and information (Pearce, 1976).A firm's intelligence described as the way of achieving value-added profit from the organization's intangible assets(Liebowitz, 2006). The organizational intelligence is developed through a hierarchal process as shown in Figure 1-1.

Figure 1.1: The Intelligence Hierarchy

"Data is defined as symbols that represent properties of objects, events and their environment." (Ackoff, 1989). Data do not have any meaning in themselves. It can exist in any form, usable or unusable. The difference between data and information is functional, not structural. The processing and synthesis of data produced information. (Ackoff, 1989)

Knowledge is awareness about "how", by the help of knowledge information is converted into instructions. Through instructions and experience knowledge transfers from one person to other (Ackoff, 1989).

Wisdom or Intelligence is the ability to use knowledge to increase efficiency. According to Gilad (2008), Intelligence is not the facts but it's a perspective on facts (Gilad, 2008). Intelligence is the characteristic of the actor. It is personal and unique. Intelligence adds value through judgment; it requires mental ability (Ackoff, 1989).

Data do not have any meaning; once they are analyzed and given some meaning, they become information. Information is converted into knowledge through experience. Expertise is achieved through knowledge in a specialized area. Expertise is converted into a state of wisdom through experience and learning (Liebowitz, 2006).

1.2.2 Competitive Intelligence and Business Intelligence

These terms are defined differently by different authors. Sometimes CI is used interchangeably with business intelligence. Business intelligence is a broader term which contains Competitive Intelligence (Frishammar, 2002). The difference between both the terms is that business intelligence is the intelligence inside the organisation whereas competitive intelligence deals with the information related to the firm's business

environment (Bose, 2008; Chen, Chau, & Zeng, 2002). Competitive Intelligence differs from the general business environment because it focuses on strategic decision making. Competitive Intelligence deals with the information of capabilities and future plans of the competitors (Britt P. , 2006). Business Intelligence focuses on explicit knowledge available inside the organisation (Herschel & Jones, 2005).

1.2.3 Competitive Intelligence and Competitor Intelligence

The focus of Competitor Intelligence is on competitors and industry. It identifies and understands the competitors, their strengths, weaknesses, and anticipates their moves (Wright & Calof, 2006). It is the surveillance of the activities of rival firms whereas Competitive Intelligence is a broader concept. "Competitive intelligence adds value to the organisation by connecting competitor intelligence with strategic planning. Competitor Intelligence is a subset of Competitive Intelligence. Competitor Intelligence focuses on short term effectiveness of the firms and problems associated with it, whereas Competitive Intelligence focuses on long term sustainability of the firm" (Badr, 2003).

1.2.4 Competitive Intelligence and Marketing Research

According to Walle (1999), Competitive Intelligence used to be a part of marketing research called marketing intelligence now; it has been developed into a distinct business function which serves all other business functions (Walle, 1999). Due to its origin as an activity of marketing research, executives make a common error by considering it synonymous with marketing research (Dishman & Calof, 2008). Competitive Intelligence is not only confined to occasional research directed by organizations as for their rivals but also considers markets and client inclinations. It is

a continuous process which includes gathering and investigation of information as well as incorporating it into the key decision making procedure of the organizations (Bose, 2008; Dishman & Calof, 2008). Owing to the accessibility of open source data and computing revolution, competitive intelligence has been developed. The other difference between competitive intelligence and marketing research is based upon responsibility i.e. competitive intelligence team is not only responsible for data collection but also for defending the business's own proprietary information. Competitive Intelligence is considered as a comprehensive function that concurrently helps all departments of the business (Walle, 1999).

1.2.5 Competitive Intelligence and IndustrialEspionage

Society for Competitive Intelligence Professionals (SCIP) argues that industrial espionage is both illegal and unethical. All activities of competitive intelligence are legal and ethical (Roy, 1999). Professionally conducted competitive intelligence uses open data sources to collect information on rival firms and on the market business environment that can be legally and ethically identified and obtained is acceptable. In contrast, business information that is illegally obtained is called business espionage (Crane, 2005). The SCIP although accepts that the laws in countries guide the intelligence gathering activities but there are no ethical standards across countries because there are cultural differences as to what is acceptable.

1.2.6 Comparison of DifferentTerms Used for Intelligence

According to Frishammar(2002),the comparision of various similar terms of competitive Intelligenceis possible on the following six parameters: future orientation, focus, methodology,value-added,ties to decision making and scope (Frishammar,

2002). All intelligence terms have strong ties with decision making and have a future orientation. According to Frishammar (2002), environment scanning is the broader term which contains all other terms as its subset and focuses on general information of events accurs in the business environment. Competitive Intelligence is the subset of Business Intelligence and Business Intelligence is the part of Environmental scanning in terms of scope as shown in Anexure A.

1.3 The Significance of Competitive Intelligence

Today, businesses have recognized the power of information and knowledge. The success of the organization depends upon the knowledge of managers about the customers, suppliers and the business environment. Knowledge is now at the cutting edge of competition and It influences the very survival of companies. It helps organizations in identifying existing and potential competitors, their strengths and weaknesses as well as the strategies they are expected to follow. Organizations have realized that in order to do business effectively identifying the need of the customers is not enough; they require a comprehensive understanding of their competitors' moves if they have to continue to exist and participate effectively in future. In today's business scenario technology has significantly changed the speed of development and marketing of products. It also significantly reduces the span of the product life cycle. Organizations need to be dynamic to adapt quickly to variations in the market. Competitive intelligence supports an organization to identify changes in the market as soon as possible (Kahaner, 1998).

The objective of CI is to help management in decision making to make the organization more effective compared to competitors (present and prospective) (Wang

& Luis A, 2013). A competitive intelligence system of organization helps in the following areas "anticipating changes in the market, anticipating the actions of competitors, discovering prospective competitors, learning from successes and failures of others, Increasing the collection and value of acquisition targets, learning about new technologies, goods and processes that affect industry, learning about political, governmental or regulatory changes, entering new businesses, looking at business practice with an open mind and helping implement the most modern administration tools" (Adidam, Gajre, & Kejriwal, 2009).

1.4 The Scope of the Study

India is a developing country. Industries in India are much diversified in terms of competition within the industry, based on the size of firms , usage of technology and data based decision making. Studying all the industries in one research is not possible and would not give a clear picture of the practise of Competitive Intelligence of Indian industries. The research is conducted in the Indian retail industry. Indian retail industry has been selected on the basis of competition within the industry, advanced technology uses and data based decision making.

1.5 Concept of Retailing

"The word retail is from the French word retailing, meaning to cut a piece off or to break bulk. Retailing is the final step of any economic activity. It is one of the biggest contributing industries to the world economy. Retailing includes all the activities involved in selling product or services directly to the final consumers for personal, non-business use" (Kotler, Armstrong, Agnihotri, & Haque, 2010). "A retailer is any

business whose sales come from retail. Any business selling to the final consumer whether it is a producer, trader or retailer is doing retailing. It does not matter how the goods or services are sold" (Pradhan, 2011).In distribution, channel retailers play a crucial role by connecting the manufacturer with the end user. A distribution channel consists of a number of firms which facilitate the flow of a product from the manufacturer to end user. Figure 1-2 shows the position of the retailer in the traditional distribution channel.

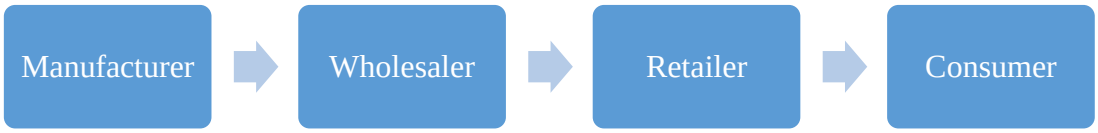

Figure 1.2: Traditional Distribution Channel

Although the activities of the distribution channel are performed by independent organizations, vertical integration is also possible in the distribution channel. When a retailer performs the wholesaling or manufacturing activity it is called backward integration, for example, a retailer introduces a private label brand. When a manufacturer or wholesaler starts doing retailing it is called forward integration, for example, the manufacturer starts opening his own stores.

1.6 The Functions of Retailer

The retailers increase the value of products and services to the customer. The retailer serves customers by offering the products according to requirements, in the requisite quantity, at the right time and place. Following are the functions performed by the

retailer: “an assortment of products and services, breaking bulk, holding inventory, providing service” (Pradhan, 2011).

An Assortment of Products and Service

A supermarket carries a large number of items made by different companies. It enables the customer to select from a large collection of brands, design, size, colors and prices at one place. Producers companies focus on producing a definite type of product. For example, Amul produces dairy products, Kellogg produces breakfast cereals. If both producers had their own stores and sold their own products, customers would have to go to diverse stores to purchase a combination of products.

Breaking Bulk

Retailer present products in required amount according to the consumption need of consumer and household. Breaking bulk is an importantfunction to manufacturer and consumer. It reduces transportation cost by transporting in large quantity.

Holding Inventory

Maintaining an inventory is a major function of retailers which reduces consumer’s cost of storing the product.

Providing Service

Retailers offer services that make buy and use of product comfortable for customers. For example, the retailer provides credit to customers. Salesmen in the store help the customer to choose the products.

By providing services, assortments and inventory, the retailer increases the value consumers receive from their products and services.

1.7 Global Retail Industry

The estimated revenue of the global retail sector is$ 28 trillion with an average expansion speed of 3.8% by 2019. This sector of economy contributes 31% to the world's GDP. The growth of the global retail sector is fueled by E-commerce and technology. The revenue and number of the users of E-commerce are predicated to grow at a CAGR of 23% and 12% respectively from 2012 to 2019. "Mobile share in e-commerce reaches 29% in certain countries and has been growing fast but there is still room for growth, with desktops still representing the majority of devices used for online shopping" (Research and Markets, 2016).

According to the KPMG Global Retail Trends Report of 2017, the top five trends which are impacting the retail industry globally are following- technology, mobile shopping, creating a meaningful experience for customer, personalization and attracting& retaining talented manpower (KPMG, 2017).

Owing to the introduction of online distribution channels and current digitalization the retail industry of the world has changed drastically in the last ten years. More particularly, with the employ of the cellular phone channel, tablets, social media, and the incorporation of these new channels in online and offline retailing, the retail landscape continues to transform. In the modern retail "Showrooming is becoming an important issue. Shoppers now frequently search for information in the store and simultaneously search on their mobile device to get more information about offers and may find more attractive prices. The opposite of Showrooming also occurs, which is now referred to as Webrooming, where shoppers seek information online and buy offline. The retail industry is shifting from Multi Channel strategy to Omni Channel

strategy"(Verhoef, Kannan, & Inman, 2015)."Customer switches across channels and devices such as a desktop, laptop and mobile and all are component of the shopper's Omni-channel experience and organizations require thinking to provide a flawless experience. Specifically, the different channels and touch points are used constantly, interchangeably, and simultaneously by both customers and firms to facilitate the customer's retail experience" (Brynjolfsson, Hu, & Rahman, 2013). These new channels have broken down old barriers of geography. It is affecting competitive strategies. Hence it is very important for retailers and their supply chain associates to reorganize their competitive strategy.

1.8 Indian Retail Industry

The Indian retail industry is not insulated from world retail developments. "It has emerged as one of the most dynamic and fast-paced industries due to the entry of several new players. It accounts for over 10 per cent of the country's Gross Domestic Product (GDP) and around 8 per cent of the employment. India is the world's fifth-largest global destination in the retail space" (IBEF, 2016). According to the Indian Brand Equity Foundation report, India has the highest retail store density in the world. India's retail industry is rising with exponential growth, Tier-II and Tier-III cities also started participating in the retail sector development. The factors which are playing a significant role in the growth of Indian retail sector are "demographic profile, urbanization, economic growth, increasing disposable incomes and changing consumer preferences. Indian consumers start using online retail in a big way. Morgan Stanley estimated that e-commerce sales in India will soar to nearly $120 billion by 2020" (Live Mint E-Paper, 2016).

Foreign player's participation has enhanced the competitiveness ofthe Indian retail industry. "India's price competitiveness attracts large retail players to use it as a sourcing base. Global retailers such as Walmart, GAP, Tesco and JC Penney are increasing their sourcing from India and are moving from third-party buying offices to establishing their own wholly-owned/wholly-managed sourcing and buying offices" (IBEF, 2016).

1.8.1 Indian Government Policy Framework for Retail Industry

India is a signatory to the World Trade Organisation's General Agreement on Trade in Services which include wholesale and retailing services. Owing to thepolicy decisions,India's retail industryhas been opened up to international firms. To accelarate the economic growth, the Indian Government promotes foreign direct invesment. Foreign Direct Investment (FDI) supplements domestic capital, technology and skills. "India's Foreign Direct Investment policy has been gradually liberalised to make the market more investor friendly. The results have been encouraging. These days, the country is consistently ranked among the top global investment destinations" (IBEF, 2016).

In 1997, "Foreign Direct Investment in cash and carry (wholesale) with 100 percent ownership was allowed under the Government approval route. It was brought under the automatic route in 2006. 51%investment in a single brand retail outlet was also permitted in 2006". According to the consolidated FDI policy 2016, 100 percent FDI is allowed in Cash & Carry and E-commerce through automatic route. In single brand retail, 100% FDI is allowed but beyond 49%,government approval is required. In multibrand retailing 51%, FDI is allowed through Government route as shown in Table 1-1.

Table 1.1: 1FDI Limit in Indian Retail Sector

Sector/Activity	Percent of Equity/ FDI Cap	Entry Route
Cash & Carry Wholesale Trading/Wholesale Trading (including sourcing from MSEs)	100 Percent	Automatic
E-commerce activities	100 Percent	Automatic
Single Brand product retail trading	100 Percent	Automatic up to 49
	beyond 49%	Government Route
Multi Brand Retail Trading	51	Government

The Indian Government also has passed Model Shops and Establishment (Regulation of Employment and Condition of Services) Bill 2016. This bill provides independence to function 365 days in a year and opening/closing time of organization. It means shops and establishments can operate 24/7. It is applicable to retailers who have 10 or more than 10 employees. This bill helps retailers to increase their sales and freedom to control their business. The Union Government of India through its policies is liberalizing and reforming the retail sector.

1.9 Indian Retail Format

Indian Retail Industry is an incredible assortment of formats. While on one hand, it has local *kirana* stores which offer credit and home delivery to maintain a personal relationship with customers, on the other, it has organized big retail chains and flourishing e-commerce."The retail industry in India is mainly divided into Organized and Unorganized Retailing. Organized retailing refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax. These include

the corporate-backed hypermarkets and retail chains, and also the privately owned large retail businesses. Unorganized retailing, on the other hand, refers to the traditional formats of low-cost retailing, for example, the local *kirana* store, owner manned general stores, convenience stores, hand cart and pavement vendors" (Pradhan, 2011).

1.9.1 Classification on the Basis of Ownership

1.9.1.1 Independent Retailer

"An independent retailer is one who owns and operates only one retail outlet. In India, a large number of retailers are independent retailers" (Pradhan, 2011). For example, local *kiranas* are independent retailers.

1.9.1.2 A Chain Retailer or a Corporate Retail Chain

"When two or more outlets are under common ownership, it is called a retail chain. These stores are characterized by similarity in merchandise offered to the consumer, ambience, advertising and promotions" (Pradhan, 2011). For examples Louis Phillippe and Van Heusen.

1.9.1.3 Franchising

"A franchise is a contractual agreement between the franchiser and the franchisee allowing the franchisee to conduct business under an established name as per a particular business format in return for a fee or compensation" (Pradhan, 2011). Examples are McDonald's and Archie's.

1.9.1.4 Leased Departments

"These are also termed as a shop in shops. When a section of a department in a retail store is leased /rented to an outside party it is termed as a leased department"

(Pradhan, 2011). Perfume and Cosmetic retailer sell their products through shop in shop concept.

1.9.1.5 Consumer Cooperative

The aim of consumer cooperatives is to ensure availability of essential commodities at a low price. "As a national policy consumer cooperatives have been encouraged and developed as a democratic institution owned, managed and controlled by its members for the protection of the interest of the common consumers" (Pradhan, 2011).

1.9.2 Classification on the Basis of the Merchandise Offered

According to Pradhan (2011) "If retailers are to be classified on the basis of the merchandise mix that they offer to their customers, they may be very broadly classified into the food oriented and the general merchandise retailer. Within this classification, they can be further classified on the basis of the target market" (Pradhan, 2011).

1.9.2.1 Convenience Stores

"They are relatively small stores located near residential areas; they are open for long hours, seven days a week and offer a limited line of convenience products like eggs, bread, and milk. Their size ranges from 3000 to 8000 square feet. They are targeted at customers who want to make their purchase quickly" (Pradhan, 2011). Reliance Fresh and Local Kirana Store are the best examples for Convenience stores.

1.9.2.2 Supermarkets

"These are the large, low cost, low margin, high volume self service operations designed to meet the need for food, groceries and other non-food items. Internationally the size of these stores varies from 8000 to 20000 square feet" (Pradhan, 2011). For example, Apna Bazar, Foodworld.

1.9.2.3 Hypermarket

"The hypermarkets are designed to attract customers from a significantly large area with their low price offers, unique range and other offers. The store size of hypermarkets varies between 30000 to 100000 square feet" (Pradhan, 2011). For Example, Big Bazaar, Hyper City.

1.9.2.4 Specialty Stores

"These are characterized by a narrow product line with deep assortments in that product line. Specialty stores usually concentrate on apparel, jewellery, fabrics, sporting goods etc. The average store size of specialty stores is less than 8000 square feet" (Pradhan, 2011).

1.9.2.5 Departmental Stores

"Departmental store is a large scale retail outlet, often multi-levelled, whose merchandise offer spans a number of different product categories. The size of an average Indian departmental store varies from 20000 to 40000 square feet" (Pradhan, 2011). For example, Shopper's Stop and Lifestyle.

1.9.3 Non Store Retailing

"A direct relationship with the consumer is the basis of any kind of non-store retail venture. It may be broadly classified as direct selling and direct response marketing" (Pradhan, 2011).

1.9.3.1 Direct Selling

"It involves making personal contact with the end consumer at home or at the place of work. Cosmetics, Jewellery, food and nutritional products, home appliances and educational materials are some of the products sold in this manner" (Pradhan, 2011).

1.9.3.2 Direct Response Marketing

It is a non-personal form of communication with the consumer. The following are the type of direct response marketing.

1.9.3.3 Catalogue Retailing or Mail Order

"It is appropriate for specialty products; the key is using the customer data base to develop targeted catalogues that appeal to the narrow target market" (Pradhan, 2011).

1.9.3.4 Television Retailing

"Asian Sky Shop was among the first to introduce television shopping in India. In this form of retailing, the product is advertised on television, detail about the product features, price and things like guarantee/warranty are explained. Phone numbers are provided for each city where the buyer can call in and place the order for the product and products are then home delivered" (Pradhan, 2011).

1.9.3.5 E-tailing or Onlinehopping

"Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet or television"(Pradhan, 2011).

1.10 Purpose of the Study

The present business environment is very dynamic and knowing only customer is not enough for firms; firms require a complete knowledge of their market, business environment and competitors' moves if they have to survive and compete successfully in future. Firms use CI as a tool to track the business environment and market. CI is an established management function in developed economies. This research studied the CI practices of Indian retail industry. The research studied how Indian retail firms

practice competitive intelligence. Do these firms use CI in strategic decision making? This study is also investigating the relationship between competitive intelligence capability of the retail firm and its business performance.

1.11 Structure of the Thesis

The thesis is organized into five chapters.

Chapter 1: "Introduction". This chapter discusses the introduction to the problem, concept and significance of Competitive Intelligence. It describes the difference between competitive intelligence and other similar concepts. This chapter also reported the concept of retailing, Global Retail Industry and Indian Retail Industry. It also mentions the purpose of the study.

Chapter 2: "Literature Review". This chapter puts this study in context and discusses the origin of Competitive Intelligence, operational definition and how it is being practiced in the world's six largest economies. This chapter also discusses the theoretical background of strategy formulation and how competitive intelligence is related to the theory of strategy formulation. It also discusses how the theory of RBV of the organization and Competitive Intelligence is related. It also discusses the business performance construct and its relation to competitive intelligence. In the end, the chapter highlights the research gap.

Chapter 3: "Research Objectives and Methodology". This chapter includes the research objectives and research design. It discusses the research design which includes a unit of analysis, sample design and field work. It also discusses the instrument design, validity and reliability of the scale.

Chapter 4: "Data Analysis and Interpretation". This chapter describes the process of data cleaning and missing value analysis. It also describes the profile of the sample. The confirmatory factor analysis section discusses the applicability of the Competitive Intelligence model in the Indian retail industry. It also discusses the status of Competitive Intelligence in the Indian retail industry, the use of Competitive Intelligence in strategy formulation and the relationship of Competitive Intelligence with business performance.

Chapter 5: "Summary of Findings, Conclusion and Scope for Future Research". This chapter discusses the summary of the findings and conclusion of the study; based on the analysis it also discusses the limitations of the study and directions for future research.

CHAPTER 2.

LITERATURE REVIEW

2.1 Introduction

The purpose of this research is to know how Indian retailers practice Competitive Intelligence and how they use it. To satisfactorily address this objective it will be necessary, to begin with clarifying what is Competitive Intelligence and how it is used in this research. This chapter starts with the discussion of the origin of CI and then discusses the status of CI in the six largest economies of the world. It also discusses the link between the theory of strategy formulation and competitive intelligence then discusses business performance. In the end, it discusses the research gap and contribution of this research.

2.2 Origin of Competitive Intelligence

CI has been practised since ages. It has its root in the military. Many articles consider the work of Sun Tzu, as the origin of competitive intelligence. Sun Tzu wrote "The art of war" a prominent text which provides a meticulous explanation as to how to build up military intelligence (Calof & Wright, 2008). One of the quotations from "The art of war" says "if you know your enemies and know yourself, you will not be put at risk even in a hundred battles. If you only know yourself, but not your opponent, you may win or may lose.If you know neither yourself nor your enemy, you will always endanger yourself". The work of Sun Tzu was the basis for much development in military intelligence (Prescott, 1999). In India, around 300 BC Chankaya replaced the dynasty without any war. He also emphasized intelligence. In 1815 Nathan Rothschild made his

wealth on the London Stock Exchange because of his timely intelligence about the Battle of Waterloo (Ferguson, 1998). In the nineteenth century, China had a monopoly over tea production. East India Company secretly gathered seeds and information from China and started tea plantation in India (Live Mint E-Paper, 2016). It means the use of information for commercial purposes had started long back.

In the Second World War, intelligence activities increased but only for a military purpose. In the cold war period, the world witnessed intelligence and spying activities for military advantage. At the same time industry also started looking for information to increase production. William T. Kelly first purposed the term "Marketing Intelligence" and justifies the use of intelligence on following factors: expansion of time horizons, better machinery for information gathering, better production of finished intelligence, reduced confusion of top policy makers, prevention of distortion of information, new and better source of information and creative intelligence functions (Kelley, Marketing Intelligence for Top Management, 1965).In 1966 Fair predicted that the business should establish the corporate CIA and in consequence of that, it would increase the covert and illegal activities(Fair, 1966). Due to the military origin of competitive intelligence, it still has images of spying (Prescott, 1999). The article published by Aguilar used the term environment scanning the first time for the activities of external information collection in the business (Aguilar, 1967). In 1968 Kelly published a book titled "Marketing Intelligence: The Management of Marketing Information". The other contributors in this phase include Frank T Pearce, David B Montgomery and Charles B Weinberg (Montgomery & Weinberg, 1979;Pearce, 1976).Up to 1980 competitive intelligence was established in the field of business and academics, but it was confined only to information gathering and marketing

intelligence (Prescott, 1999). Prescott (1999) considered that the first phase of the evolution of CI in business and academics ended in 1980.

The second phase of Competitive Intelligence started in 1980. "Competitive Strategy: Techniques for Analyzing Industries and Competition" a book authored by Michel Porter considered to be the starting point for second phase. The focus of competitive intelligence was no longer confined only to information collection but included the analysis of competitive position within the Industry. Porter reported that "even as companies were carrying out the activity of Competitive Intelligence informally, in his view this was nowhere near adequate. He advocated the need for a planned intelligence process at all times in order to continuously and methodically identify business opportunities and threats"(Porter, 1980). During the second phase of CI, practitioners and consultants contributed to the publication. In the second phase, academic writing started appearing but it was still very limited in numbers (Prescott, 1999).

Up to the year 1987, no efforts had been made to change the image of competitive intelligence work. In 1987 Society for Competitive Intelligence Professionals (SCIP) was established. Now organizations started formalizing the activities of competitive intelligence. SCIP started publishing ethical and legal guidelines of practice for its members. In the third phase, academicians started publications on competitive intelligence and started theorizing the field. The year 1988 saw the establishment of a dedicated journal "Competitive Intelligence Review". Competitive Intelligence no longer remained the field of marketing. It has started a strong association with organizational decision making. "Although Competitive Intelligence evolved out of marketing, the activities of the discipline have come to serve all business functions. Research and development people seek to scrutinize rival organizations while safeguarding their own data. Possessing information such as the production

capabilities of a competitor's factories, furthermore, can provide valuable insights. The financial health of a competitor may influence a decision to confront the rival head on or (as an alternative) to strategically avoid direct conflict. Competitive Intelligence started as a part of marketing research but it has grown beyond its origins and it started providing information to all business areas" (Walle, 1999).

Up to the year 1999, Competitive Intelligence had passed through three stages as shown in Annexure-B. Prescott reported that the in next stage competitive intelligence would start as a core competency of the organizations.

Prescott in his study predicted the orientation of competitive intelligence as a Strategic Tool. In 2007, Global Intelligence Alliance reported that "87 per cent of the companies interviewed had some form of integrated intelligence capability with a systematic approach for collecting and analyzing information about their external environment. These studies covered Asia-Pacific, Belgium, Brazil, Canada, Finland, Germany, India, Mexico, Netherlands, Norway, Spain, Switzerland, UK and USA" (Global Intelligence Alliance , 2007a ;Global Intelligence Alliance, 2007b). "In the literature, it has been established that Competitive Intelligence process generates strategic input for organizations" (Fahey, 2007; Wright & Calof, 2006) and most of the entrepreneurs are agreed that "competitive intelligence will be useful in making long term strategic decisions for their business" (Fatoki, 2014). Competitive Intelligence is now passing through it's fourth stage. Appendix-C has the abstract of papers and books cited in this section.

2.3 Definition of Competitive Intelligence

In business and academics there are many synonymous terms for competitive intelligence used by different researchers, For example Environmental Scanning

(Saxby, Parker, Nitse, & Dishman, 2002), Business Intelligence (Pearce, 1976), Competitor analysis(Ghoshal & Westney, 1991), Marketing Intelligence (Kelley, 1965) and Market Intelligence (Maltz &Kohli, 1996). “Intelligence helps the business maintain and build up diverse competitive advantages by using the whole business and its networks to build up actionable insights about the business environment. It uses an organized and fair process connecting, planning, collection, analysis, communication and management” (Calof, 2008). According to Kahaner (1998)“Competitive Intelligence is a systematic programme for gathering and analyzing information about your competitor’s activity and general business trends to further your own companies’ goals” (Kahaner, 1998).The SCIP defines CI as follows: "Competitive intelligence is the process of monitoring the competitive environment. It enables senior managers in companies of all sizes to make informed decisions about everything from marketing, R&D and investing tactics to long-term business strategies. Effective competitive intelligence is a continuous process involving the legal and ethical collection of information, an analysis that doesn't avoid unwelcome conclusions and controlled dissemination of actionable intelligence to decision makers”. The SCIP describes Competitive Intelligence cycle “A process by which raw data is acquired, gathered, transmitted, evaluated, analyzed and made available as finished intelligence for policymakers to use in decision making and action. There are five phases which constitute this cycle: Planning and Direction, Collection, Analysis, Dissemination and Feedback”. The fundamental element of a Competitive Intelligence system is the intelligence cycle as Shown in figure 2-1. The intelligence cycle use to convert raw data in to intelligence.

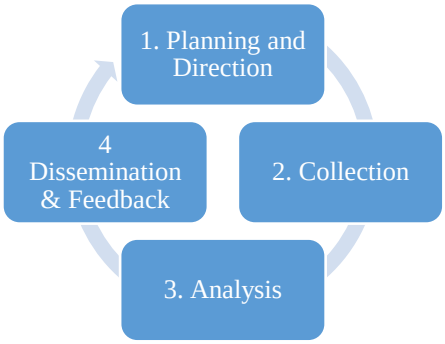

Figure 2.1: Intelligence Cycle

1. Planning and Direction: At this stage, businesses do need assessment and decide what issues need to be investigated and what information management required.
2. Collection: At this stage actual gathering of raw information from internal and external sources take place. Most of the information required from an external source is available in the public domain.
3. Analysis: It is the process of connecting information from various sources and identifies patterns and builds different scenarios. The analysis must forecast what a firm is likely to do and it should be responsive to business's need.
4. Dissemination: It involves communicating the intelligence output to those who required it in the organization.

Appendix-D has the abstract of papers and books cited in this section.

2.4 Competitive Intelligence Scenario in Other Countries

Competitive Intelligence practice of a company reflects its individual culture, government involvement and corporate idiosyncrasies. Culture impact the practice of competitive intelligence in any economy (Adidam, Gajre, & Kejriwal, 2009;Kahaner,

1998). The difference in competitive intelligence practices of emerging markets and the developed markets is based on the following five aspects:

1. Maturity: Developed countries have more mature competitive intelligence system.
2. The Role of the Government: Government in developed countries played a significant role in developing competitive intelligence capabilities of the countries.
3. The Infrastructure: Developed countries have more open source information whereas developing economies do not have recorded data.
4. Size and Time spent on CI: In developed countries, more investment is done on competitive intelligence in terms of people and time.
5. The Techniques used for CI: In developed countries, more advanced technology is used as compared to developing countries.

Although the SCIP was started in the US, it has spread out to the whole world. Most of the literature on Competitive Intelligence is US based. According to the World Bank, India is at 7th place in terms of Gross Domestic Product (World Bank, 2017). The six countries bigger then India are United States, China, Japan, Germany, the United Kingdom, and France. The following section discusses the practices of competitive intelligence by the seven largest economies.

2.4.1 United States of America (USA)

United States of America (USA) is the biggest economy of the world in on the basis of GDP (World Bank, 2017). According to the Economic Intelligence Unit, it would be the fourth most attractive business location in the world in 2017-21. It improved one place from the previous period 2012-17 (The Economist Intelligence Unit

Limited, 2017). Competitive Intelligence practices have been more widely accepted and established in the United States business community than any other country in the world. Most of the literature on competitive intelligence is from United States (Blenkhom & Fleisher, 2005 ;Wright, Eid, & Fleisher, 2009).

2.4.2 China

China plays a significant role in world trade. It is the second largest economy after the US. It will overtake the US economy by 2037 (The Economist Intelligence Unit Limited, 2017). It is significantly different from the US economy in terms of the institutional environment for business (Tao & Prescott, 2000). According to the Economic Intelligence Unit's (EIU 2017) report, there is an overall improvement in China's business environment in 2017-21, but the country's ranking slips in global term from 53rd to 62nd place. The Society of Competitive Intelligence in China was established in 1994 after that academic activity of Competitive Intelligence has increased. In China research has advocated the use of competitive intelligence for higher education development (Liu & Oppenheim, 2006). Although leaders in China consider Competitive Intelligence as a useful tool (Tao & Prescott, 2000) but Competitive Intelligence implementations in Chinese businesses are still performed at a medium level in the organizations. At the same time, Competitive Intelligence practices in China are progressively increasing towards an advanced level of superiority (Xie & Jin, 2011).

Although Competitive Intelligence in China has not yet reached the level of institutionalization or sophistication but it is promoted by academics, consultants, governments, and managers as a technique of enhancing the company's

competitiveness. Competitive Intelligence in China is considered less developed than in Japan and the US (Fleisher & Wright, 2009).

2.4.3 Japan

In the Second World War, the Japanese economy was devastated. After the Second World War, Japan has progressed a lot in terms of its GDP contribution to the world economy. In 1951 the size of Japan's economy was half of West Germany. By 1970 it had overtaken all European Economies. It is the 3rd largest economy in terms of GDP (World Bank, 2017). How did a country with few natural resources become an industrial country? According to Kahaner(1998), the Japanese have unbending belief in Competitive Intelligence. Japanese trade culture promotes information collection as a continuous process. Japanese give value to information. Americans think information is cheap because it is easily available (Kahaner, 1998). The government provides competitive intelligence supports to the businesses through the Ministry of International Trade and Industry (MITI), Ministry of Finance, Trade and Culture, and Japan's External Trade Organization and Embassies (Ikeya & Ishikawa, 2001). Although Japanese companies have a strong interest in competitive intelligence they are lacking in using advanced analytical techniques as compared to the US (Adidam, Gajre, & Kejriwal, Cross-cultural competitive intelligence Strategies, 2009). Comparison of Japan and US Competitive Intelligence practices is shown in Appendix-F.

2.4.4 United Kingdom

The UK's business environment has been predicted to improve in 2017-21 as compared to 2012-17 but its global ranking (15) remained the same (The Economist Intelligence Unit Limited, 2017). According to the World Bank, UK is the fifth biggest economy of

the world on the basis of GDP. (World Bank, 2017).There has been a very high expansion in the number of databases and electronic information sources for competitive intelligence information (Kahaner, 1998). In UK Competitive Intelligence is perceived to be the instrument of big organizations and cannot be practiced without a massive amount of financial and human resource investment. But in reality, it is not the case (Wright, Pickton, & Callow, 2002). In the empirical research of competitive intelligence in UK retail banks, it was found that senior managers backing the Competitive Intelligence system and process but there is no standard process of Competitive Intelligence followed in UK's Banking industry. In the same study, bank managers agree that Competitive Intelligence is a significant part of the strategic forecast and decision making.(Wright, Eid, & Fleisher, 2009).On four parameters of Wright-Pickton's best practice model, the UK banking industry has not followed any best practice of Competitive Intelligence (Wright, Eid, & Fleisher, 2009).

2.4.5 France

According to the World Bank, the seventh leading economy of the world in terms GDP is France (World Bank, 2017). The global ranking of its business environment is expected to rise from 17th place to 16thplace for the period of 2017-21 (The Economist Intelligence Unit Limited, 2017). Competitive Intelligence in France has been influenced by the United States of America. (Smith J. R., 2012).France has examined the relationship between Intelligence, Government and Society (Dedijer, 1994)and implemented the state sponsored programme of Competitive Intelligence thorough Chamber of Commerce and Industry (Clerc, 2009). These programmes have improved

the national competitiveness, awareness and attitude of small and medium industry (Smith, Wright, & Pickton, 2011).

2.4.6 India

According to the World Bank, India is the sixth major economy of the world. (World Bank, 2017). The global ranking of business environment attractiveness of India is 63 for 2017-21; the business environment will improve due to gradual reforms (The Economist Intelligence Unit Limited, 2017). The literature on Competitive Intelligence in India is very limited. The researcher comes across only one book titled "Competitive Intelligence: An Introduction" on Competitive Intelligence edited by an Indian author. This book does not cover the practices of Competitive Intelligence by any Indian firm. In this book, two out of twelve chapters are written by Indian Authors (Ghose, 2007). One journal article titled "Competitive Intelligence and firm's performance in emerging markets: An exploratory study in India" is authored by three people of Indian Origin, but all of them are based in the United States. The study of Indian companies has shown that companies "which exhibit a higher level of competitive intelligence activities achieve better financial results. Competitive Intelligence in Indian companies is at a moderate level and needs an advanced level of practices" (Adidam, Banerjee, & Shukla, 2012).

There is a lack of literature on Competitive Intelligence theory and practice in Indian firms. Out of the seven largest economies of the world practice of CI in India and Germany have not been studied by researchers. This research is filling the gap in

studying the practice of CI in Indian firms. Appendix-E has the abstract of papers and books cited in this section.

2.5 Empirical Studies on Competitive Intelligence

As discussed in section 1.2.1, the organizational intelligence is developed through a hierarchal process as shown in Figure 1-1. Data is converted in to information by processing and synthesis. With the help of knowledge, information is converted into actionable recommendation or instructions, through instructions knowledge transfer is also possible (Ackoff R. L., 1989). In 1966 William Fair had already proposed the formation of a corporate "Central Intelligence Agency" within the firm whose function would be to collect, screen, collate, organize, record, retrieve and disseminate information. Since that time the proposition has grown to become an emerging business construct with delineated job functions directly responsible for intelligence collection, analysis and dissemination (Kahaner, 1998). Turkish small and medium enterprises organizations strongly believe that the lack of formal process to share information, and inability to pull information together are influential in reducing the effectiveness of competitive intelligence application. (Koseoglu, Ross, & Okumus, 2015).

According to Prescott the competitive intelligence is passing through its fourth stage, where it is used as core competence for organizations (Prescott, 1999). In earlier stages, competitive intelligence has been practiced as an informal activity, Porter reported it as inadequate to get competitive advantage (Porter, 1980). Initial empirical research on competitive intelligence practice of the firms are more concerned with how practitioners perceive the impact and level of uncertainty in the environment, administration and structure of competitive intelligence programs, objective of the program, where is the

competitive intelligence program located, who do CI professionals report to and who are their primary users? What budget is allocated to the CI function? (Tao & Prescott, 2000). There are four types of competitive intelligence practices adopted by firms 1) Ad Hoc, (2) Continuous-Comprehensive; (3) Continuous-Focused; and (4) Project-Based (Cartwright, Boughton, & Miller, Winter 1995). The study of competitive intelligence practices of UK's firms based on attitude, Intelligence gathering style, use of competitive intelligence and location of competitive intelligence activity. Based on this typology in UK's firms, the best CI Practice consist of strategic attitude, hunter gathering, strategic User and designated location (Wright, Pickton, & Callow, 2002). Small organizations are not concerned with gathering intelligence on competitors because of satisfaction with current intelligence. A significant difference was found between organizations with high and low revenues concerning satisfaction with the current intelligence system. Organizations with high revenues are more satisfied with current intelligence. (Groom & David, 2001)

Several efforts have been made to evaluate company's intelligence capabilities. (Subramanian & IsHak, 1998; Tao & Prescott, 2000; Wright, Pickton, & Callow, 2002; Koseoglu, Karayormuk, Parnell, & Menefee, 2011; Koseoglu, Ross, & Okumus, 2015; Koseoglu, Chan, Okumus, & Altin, 2019; Adidam, Banerjee, & Shukla, 2012). In analyzing the varied applications of the intelligence terms in the literature, it may be a more appropriate to define competitive intelligence as the process in which relevant information is gathered, analyzed and interpreted and in which resultant intelligence is disseminated to enhance a firm's competitiveness. Using this description, the Calof and Breakspear (1999) study identified six key phases of the process Planning and Focus, Collection, Analysis, communication, Process/structure and Organizational awareness/culture. Calof and Disman (2002)

empirically proved the existence of various phases in competitive intelligence process by using factor analysis with Varimax rotation and eigenvalue cutoffs of 1.00. Analysis produced six factors, which have been labeled "Planning and focus", "Collection", "Analysis", "Communication/ dissemination", "Process/structure", and "Awareness/culture".

Planning and Focus

Effective intelligence processes do not attempt to collect all possible information or research everything related to a subject, but focusing on those issues of highest importance to senior management (Aguilar, 1967; Montgomery and Weinberg, 1979; Porter, 1980). This phase is required to set required resources for the intelligence project or process as well as to establish the purpose and result of the findings.

Collection

Collection comes from a variety of different sources and acquisition methods including environmental scanning (Aguilar, 1967) Miller and Calof (1998), in their study of the intelligence process in Society of Competitive Intelligence (SCIP) members, found that roughly 25 percent of all intelligence time involved collection activities.

Analysis.

This is where "true" intelligence is created, that is converting information into "actionable intelligence" on which strategic and tactical decisions may be made (Calof and Miller, 1997; Kahaner, 1998)

Communication.

The results of the intelligence process (or individual project) needs to be communicated to those with the authority and responsibility to act on the findings. Kahaner particularly emphasized the importance of proper communication of intelligence results to provide managerial decision support (Kahaner, 1998).

Process/structure

Intelligence requires appropriate policies, procedures, and a formal (or informal infrastructure) so that employees may contribute effectively to the intelligence system as well as gain the benefits from the intelligence process. There is much support for a formal structure and a systematic approach to intelligence (Porter, 1980). However, many firms' intelligence efforts are short-term projects and, thus, they do not have ongoing or formal processes in place, but still conduct intelligence activities.

Organizational awareness/culture.

For a firm to utilize its intelligence efforts successfully, there needs to be an appropriate organizational awareness of intelligence and a culture of competitiveness. There has been support for this awareness/culture construct in the area of market orientation (Narver and Slater, 1990; Slater and Narver, 1994,).

Based on the previous research by Viviers et al. (2002) and Calof and Dishman (2002) the validation of constructs of the competitive intelligence process has been done by Saayman et. al. (2008). The model further improved and published by Disman and Calof (2008). The model is shown in figure 3.2, page number 51.

2.6 Competitive Intelligence and Strategy Formulation

According to the theory of strategy formulation, the knowledge of the competitive environment is crucial to earning above average return. Competitive Intelligence connects the competitive environment of the organization with strategy formulation. CI provides the strategy inputs (Fahey, 2007;Liu & Oppenheim, 2006; Trim & Lee, 2008), which help the organization to establish strategy intent. CI is a predecessor of marketing strategy formulation (Calof & Wright, 2008). Competitive Intelligence positively influences the competitive advantage (Zangoueinezhad & Moshabaki, 2009)and superior customer value of the organization (Slater & Narver, 2000).“The success of new innovation has a positive relation with Competitive Intelligence” (Nemutanzhela & Tiko, 2011).“The use of CI practices by salesperson increases customer satisfaction and brand loyalty.” (Rapp, Agnihotri, & Baker, 2011). A study on the attitude of immigrant entrepreneurs in South Africa finds that the majority of the respondents were in agreement that Competitive Intelligence is essential in executing long term strategic decision for their business (Fatoki, 2014). There is an established positive link between Competitive Intelligenec practice and strategy formulation in literature.

Strategic competitiveness is acquired when organizations successfully formulate and execute a value creating strategy but it achieves competitive advantage only when competitors are incapable to follow its strategy. Firms without a competitive advantage at best earn an average return. “The probability of achieving strategic competitiveness in the 21st-century competitive landscape is enhanced for the firm that realizes that its survival depends on the ability to capture intelligence, transform it into usable knowledge and diffuse it rapidly throughout the company” (Ethiraj, Kale,

Krishnan, & Singh, 2005), Therefore the firm must increase knowledge, incorporate it in to the organization to create capabilities and be relevant to develop a competitive advantage. To be strategically flexible, a firm has to develop the capacity to learn. A company has to learn and apply the knowledge throughout its business faster than its competitors. There are two modern schools of thought who describe how firms generate information for strategic flexibility and Competitive Advantage:

1. The Industrial/Organization (I/O) Model of Competitive Advantage.
2. The Resource-Based Model of Competitive Advantage.

2.6.1 The Industrial/OrganizationModel of Competitive Advantage

This model explains the external environment's dominant pressure on an organization's strategic position and factors of industry explain the difference in the profitability of the firms in the same industry. The basic unit of analysis in Industrial/Organization model is industry structure and profitability of the organization is a function of industry structure (Porter, 1980). This model is grounded in economics and has four underlying assumptions. "First, the external environment is assumed to impose force and constraints that determine the strategies that would result in above average returns. Second, most firms competing within an industry or within a segment of that industry are assumed to control similar strategically relevant resources and to pursue similar strategies in light of those resources. Third, resources used to implement strategies are assumed to be highly mobile across firms, so any resource difference that might develop between firms will be short-lived. Fourth, organizational decision makers are assumed to be rational and committed to acting in the firm's best interest" (David, David, & David, 2013).

2.6.2 The Resource Based Model of Above Average Return

According to resource based model, "each organization is a compilation of distinctive resources and capabilities. The rareness of its resources and capabilities is the starting point of the organization's strategy and its capacity to earn above average returns" (Wernerfelt, 1984). "Individual resources alone are not sufficient to attain a competitive advantage. Resources are causes of competitive advantage only when they are converted into capabilities. Resources and Capabilities that provide a competitive advantage to the organization over its competitors are called core competencies" (Barney, 1991).

2.7 Resource Based View and Competitive Intelligence

Wernerfelt concluded that "considering a firm in terms of its resources leads to different immediate insights from the traditional product perspective. Firms that can identify the resources lead to high profit. The acquisition can be seen as a purchase of a bundle of resources in a highly imperfect market. Strategy for a bigger firm involves striking a balance between the exploitation of existing resources and the development of new ones" (Wernerfelt, 1984). Firm's resources are heterogeneous and immobile. In order to attain sustained competitive advantage, the firm's resources should be "valuable, rare, imperfectly imitable, and not substitutable. These resources and capabilities can be viewed as bundles of tangible and intangible assets, including a firm's management skills, its organizational processes and routines, and the information and knowledge it controls (Barney, 1991). Resource based model explains the difference in profit of the organizations that cannot be explained by differences in industry conditions. Resource based model theory says "the firm's

performance is determined by the resources it owns. Competitive Intelligence capability of an organization can be considered intelligible resource and used as a core competency to earn above average profit.

2.8 Business Performance

The use of business performance construct in research is perhaps one of the controversial issues faced by an academic researcher. With the quantity of writing on this topic constantly increasing, there appears to be slight optimism of attainment of any accord on basic terminology and definitions. The strategic management researchers have to define organization performance because performance improvement is the heart of strategic management. Organization performance is different from organizational effectiveness. Organizational effectiveness is a general concept which includes organizational performance(Venkatraman & Ramanujam, 1986). "Organizational performance encompasses three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment, etc.); (2) market performance (sales, market share, etc.) and (3) shareholder return (total shareholder return, economic value added, etc.)" (Richard, Devinney, Yip, & Johnson, 2009).

"Organizational effectiveness is a broader concept. It captures organizational performance plus internal performance outcomes associated with more efficient operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by shareholders, managers or customers) such as reputation" (Richard, Devinney, Yip, & Johnson, 2009).

Organizational performance is a multidimensional construct. It has different stakeholders. Primary stakeholders include owners, employees, suppliers, distributors. Secondary stakeholder includes NGOs and Society. Due to the multidimensionality of business performance, it is operationally difficult to include all dimensions of business performance. Management researchers adopt a narrow definition of organizational performance that considers only two of the highest legitimacy stakeholder categories (owner and managers of a company) who have an economic interest in the organization (Adidam, Banerjee, & Shukla, 2012; Martinez-Simarro, Devece, & Llopis-Albert, 2015). Due to that, financial and accounting measures get popularity in measuring the performance (Mitchell, Agle, & Wood, 1997). Researchers find some serious limitation with financial and accounting parameters to measure the performance. According to Dixon (1990), financial measures are historical in nature (Dixon, 1990). Accounting measures are internally focused and they have little regard for competitors, customers and intangible assets such as skills, motivations and capabilities of its employees (Kaplan & Norton, 1992). To counter these deficiencies in the financial accounting performance measures Kaplan and Norton proposed the Balance Scorecard. To measure the overall performance of the organization the performance should be measured on four perspectives: Financial Perspective, Internal Perspective, Learning and Growth Perspective, and Customer Perspective. Balance Scorecard integrates financial and non-financial measures (Kaplan & Norton, 1992).

Balance Scorecard has challenges of implementation in empirical studies because of its uncertainty on content (Albertsen & Lueg, 2014). This problem forced the researcher to look for alternative methods of measuring performance. “One technique

is to approve indirect measures of financial indicators, for example, asking managers to assess their firm's performance in relation to their major competitors. This kind of performance data has been characterized as a subjective or indirect method". "In conceptualizing organizational performance, research must address two basic issues, selection of a conceptual frame work to define organizational performance and second identify accurate, available measures that operationalize organizational performance" (Dess & Robinson, 1984). Due to these issues, a subjective measure of performance starts getting a place in organizational performance measurement research. "A high correlation was found between the subjective and objective measures of organizational performance." (Dess & Robinson, 1984).

2.9 Competitive Intelligence and Business Performance

Competitive Intelligence helps organizations in following ways:"providing intelligent estimates, assessments, briefings and foresights about markets, and competitors' and firm's own actions" (Dishman & Calof, 2008; Tao & Prescott, 2000). CI is a precedent of marketing strategy formulation (Dishman & Calof, 2008). A study of the attitude of immigrant entrepreneurs in South Africa finds that Competitive Intelligence is useful in making long term strategic decision for their business(Fatoki, 2014).A relation was found between future studies and Competitive Intelligence. If the manager finds early warning signals in competitive intelligence, then it helped in finding the trends as early as possible and scenario building can be done by using early warning system, and it also helps us in war gaming (Schwarz, 2007). There is a positive perception that Competitive Intelligence can help in improving business performance and in making a strategic decision(Fatoki, 2014).For long term continued

existence of the organization, CI plays an important function(Gilad, 2011).“CI is positively related to superior customer value”(Slater & Narver, 2000). Competitive intelligence is positively correlated to business performance in Indian Industries (Adidam, Banerjee, & Shukla, 2012). The study conducted in Indian Industries was an exploratory study in which only one objective measure (Return on Investment) of performance was considered.

2.10 Research Gap

The operating environment of Indian Retail Industries has changed from being static to being highly open, dynamic, and competitive with new players entering the market. The rapidly changing environment includes technological innovations and growing customer demand. All of which leads industry players to take a strategic decision under the condition of increased unpredictability. Due to that, there are high chances of strategic failure of the firm. Organizations of the 21st century must grow extraordinary capabilities of learning and constantly develop their capabilities. Competitive intelligence helps organizations to develop learning capability. Therefore, maintaining pace with the fast shifting in a business environment is possible through the effective administration and implementation of CI.

CI has been studied in different developed countries of the world USA (Fleisher & Bensoussan, 2007; Subramanian & Ishak, 1998), France (Smith & Kossou, 2008) andthe UK (Wright, Pickton, & Callow, 2002). It has also been studied in the context of emerging markets like China (Tao & Prescott, 2000), South Africa and Belgium (Pelsmacker, Muller, Viviers, Saayman, Cuyvers, & Jegers, 2006).Studies on

Competitive Intelligence practices in India are still lacking. Although India's position in global trade has improved a lot due to internationalization and liberalization, a lot remains unexplored about Indian Industries. So the proposed study will focus on Competitive Intelligence practices in Indian retail industry it includes the study of the current status of competitive intelligence in the Indian retail industry, the role of competitive intelligence in strategy formulation. The research also examines the relationship of competitive intelligence with the business performance of Indian retail firm

CHAPTER 3.

RESEARCH OBJECTIVE AND METHODOLOGY

3.1 Introduction

The preceding chapter mentioned the views, opinions and arguments of a number of authors contained in existing journals and texts on competitive intelligence, strategic management and business performance. This chapter describes the objective of the study and methodology used by the researcher to achieve the same. A key to the success of an empirical study is based on the choice of methodology, which enables the researcher to obtain optimal data to address the subject of the research properly. It also discusses the instrument design for the collection of data and the concept of validity and reliability. In the last section of the chapter, the researcher discusses, in brief, the statistical techniques used in the research to analyze the data.

3.2 Research Objectives

1. To analyze the current status of Competitive Intelligence in Indian Retail Industries.
2. To investigate the role of Competitive Intelligence in strategy formulation of Indian Retail Industries.
3. To examine the relationship between Competitive Intelligence and Business Performance of Indian retail firms.

3.3 Concept of Research

"Research is a systematic process of collecting, analyzing, and interpreting information or data in order to increase our understanding of a phenomenon about which we are interested or concerned" (Leedy & Ormrod, 2013).

3.4 The Concept of Business Research

Business Research is defined "as the systematic and objective process of gathering, recording and analyzing data for aid in making a business decision. On the basis of research output, research can be categorized into two types, basic or pure research and applied research. The basic research attempts to expand the limits of knowledge or to verify the acceptability of a given theory. Applied research answers the question about specific problems or to make a decision about a particular course of action or policy" (Zikmund, 2003).

In the present study, the researcher uses descriptive research as it aims to describe certain characteristics of Competitive Intelligence used in Indian Retail Industry. This study improves knowledge about the relation of competitive intelligence with business performance in the Indian retail industry. This research is basic research.

3.5 Research Design

The study is empirical and descriptive in nature. Primary data have been collected from Indian retail firms through a standardized questionnaire based on Calof and Dishman's Model of CI (2008).

3.5.1 The Unit of Analysis

"The unit of analysis is the most important body that researchers analyze in their studies. For example, any of the following could be a unit of analysis: Individual, Group, Artifacts (books, photos, and newspapers), Geographical (town, census tract, and city), Social interactions (dyadic relations, divorces, arrests). The choice of the unit of analysis depends on the research questions that are being addressed and the level at which research results are to be generalized." (Cooper, Schindler, & Sharma, 2012).

In this research, individual retail firms constitute the unit of analysis. The structured questionnaire is filled by the managers having complete knowledge of the firm. The research results are generalized at the level of the Indian retail industry.

3.5.2 Sample Design

The basic purpose of sampling is to select some of the elements from a population which can represent the population so that the researcher may draw a conclusion about the entire population (Cooper, Schindler, & Sharma, 2012). A census study is feasible with the following two conditions: population size should be small and elements are heterogeneous (Cooper, Schindler, & Sharma, 2012)."The process of sampling involves a small number of representing items or parts of the whole population to make conclusions regarding the whole population. A sample is a subset of a larger population. The sample is taken rather than a complete census because it cuts costs, reduces labor requirement and gathers vital information quickly" (Cooper, Schindler, & Sharma, 2012). Sampling is based on the following parameters.

1. Definition of the target population.

2. Existence of the sampling frame.

3. Choice of the appropriate sampling method.

4. Determination of sample size.

The elements of a sample are chosen by using probability or non-probability sampling procedure. "The probability sampling is based on the idea of random selection which means that each element has an equal chance of selection whereas non-probability sampling is an arbitrary and subjective selection of elements" (Zikmund, 2003).The research follows the process as shown in Figure 3-1.

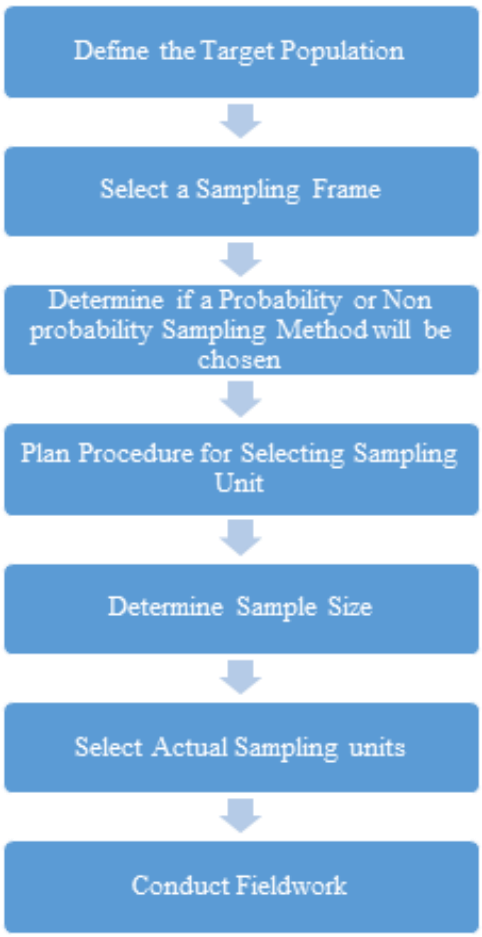

Figure 3.1: Sampling Procedure Adopted from (Zikmund, 2003)

Target Population Definition: Indian Retail firms, as well as firms which have foreign origin but their Indian operation, are handled by Indian firms.

Following are the characteristics of the target population selected for the purpose of the study

1. The firm has to be operating in brick and mortar modern organized retail sector.
2. The firmhas at least three stores operating at the time of data collection.
3. Firms which have an only online retail business are not part of the target population.

3.5.2.1 Sampling Frame:

"It is the list of population elements from where the sample is actually drawn"(Zikmund, 2003). Researchers often face difficulty in locating or building a sampling frame. (Cooper, Schindler, & Sharma, 2012). There exists a difference between the available sample frame and real population which leads to a rise in sampling frame error. There is no existing list of Indian retail firms, which can be used as a sampling frame; this forced the researcher to use non probability sampling technique for data collection.

3.5.2.2 Procedure for selecting sampling unit:

The constitution of India (74^{th} Amendment Act 1992) defines a metropolitan area in India as an area having population of ten lakhs or more, comprised in one or more districts and consisting of two or more municipalities or *panchayats* or other contiguous areas, specified by the governor by public notification to be metropolitan

area. According to the Ministry of statistics and programme implementation, the top 10 metropolitan areas of India are following.

1. National Capital Region
2. Mumbai Metropolitan Region
3. Kolkata Metropolitan Region
4. Bangalore Metropolitan Region
5. Hyderabad Metropolitan Region
6. Chennai Metropolitan Region
7. Pune Metropolitan Region
8. Kanpur Metropolitan Region
9. Visakhapatnam Metropolitan Region
10. Nagpur Metropolitan Region

The researcher selected the National Capital Region as an area of sample selection on the basis of one of the biggest metropolitan area in terms of urban population and has the highest density of brick and mortar retail stores.

According to National Capital Region Planning Board the sub areas of National Capital Region are spread across three states Haryana, Uttar Pradesh, Rajasthan, and one union territory NCT- Delhi, and 24 districts, Faridabad, Gurugram, Mewat, Rohtak, Sonepat, Rewari, Jhajjhar, Panipat, Palwal, Bhiwani, Mahendergarh, Jind, Karnal, Meerut, Ghaziabad, Gautambudh Nagar, Bulandshahr, Baghpat, Hapur, Shamli, Muzzaffarnagar, Alwar, Bharatpur and Whole of NCT Delhi.

According to the report of Retailer Association of India, National Capital Region has the topmost density of brick and mortar modern retail (23 percent), followed by

Bengaluru (21 percent). Mumbai has only a 12 per cent penetration of brick and mortar modern retail. NCR will require the maximum amount of incremental space at 1.4 million square feet per annum during 2015-2019. This will be followed by Bengaluru at 0.9 million square feet(Retailers Association of India, 2015). On the basis of brick and mortar modern retail penetration Delhi-NCR region has been selected for the study. On the basis of the density of brick and mortar modern retail and profile of retail firms following four markets have been selected for study:

1. Connaught Place.
2. South Extension Market.
3. Ambience Mall Gurugram.
4. MG Road Gurugram.

The researcher collected the data from all the target retail outlets from the selected markets. The retail outlets have been chosen on the basis of judgmental sampling. The questionnaire was filled by the top management including Owner, CEO/Director, Marketing Head, Cluster Head or Store Manager. The data were collected from August 2017 to December 2017. The data was collected personally by the researcher by visiting different retail outlet at the time of business hours.

3.5.2.3 Sample Size

The sample size is defined as the number of elements required to represent the population. The sample size is influenced by the following factors:

1 The large heterogeneity among population elements required large sample size.

2 The more desired precision required the more sample size.

3 The thin error range required large sample size.

4 The requirement of a high confidence level in estimation required a larger sample size.

Model complexity also influenced the sample size decision of the research. In the simplest sense, higher the number of measured or latent variables larger will be the sample size (Hair, Black, Babin, & Anderson, 2015).

The recommendations for minimum sample size based on model complexity are as follows:

1. "Minimum sample size must be 100 for models containing five or less latent constructs each with more than three statements (observed variables) and with high item communalities (more than 0.6)"(Hair, Black, Babin, & Anderson, 2015).
2. "The minimum sample size must be 150 for models containing seven or fewer latent constructs and with modest item communalities (0.5) and no under identifying constructs" (Hair, Black, Babin, & Anderson, 2015).
3. "Minimum sample size must be 300 for models containing seven or fewer latent constructs and with lower item communalities (less than 0.45) and have multiple under identifying constructs" (Hair, Black, Babin, & Anderson, 2015).
4. "Minimum sample size must be 500 for models containing more than seven latent constructs and with lower item communalities (less than 0.45) and having less than three measured items" (Hair, Black, Babin, & Anderson, 2015).

The model used in the measurement of the competitive intelligence construct of the firm has a maximum of four latent constructs in competitive intelligence context

model with more than 0.5 communalities and no under-identified constructs. So the minimum sample size required is 150 firms. The researcher used a sample size of 168 firms.

3.5.3 Field Work

The data was collected between the periods of August 2017 to December 2017. The data was collected personally by the researcher by visiting the retail outlets at the time of business hours. All the target retail outlets operating in the selected markets were part of the survey.

3.6 Instrument Design

The questionnaire developed for the research purpose consists of five sections. Section A has general questions consisting of questions related to demographic characteristics of the respondents and the retail firm. Section B consists of questions related to the process of competitive Intelligence. Section C has statements related to structure, culture and awareness in the firm about competitive intelligence. Section D is related to the strategic use and importance of CI and section E is related to the impact of CI on performance as shown in Appendix-I

3.6.1 Competitive Intelligence Construct Measurement

The literature provided two prominent models for measuring competitive intelligence. The one is based on the best practice model called Wright-Pickston Best Practice Model (Wright, Pickton, & Callow, 2002). The model measures the firm's capabilities of Competitive Intelligence on four parameters, Attitude, Gathering style, Use and Location of CI department in the firm. On the basis of attitude, firms are

further categorised as "Immune, Task driven, Operational and Strategic. Gathering style is further categorized as Easy and Hunter. Use type is Joneses, Knee jerk, Tactical user or Strategic user and location of the Competitive Intelligence department is Adhoc or designated. On the basis of these four parameters, the best practice model consists of Strategic Attitude, Hunter Gathering, Strategic User and Designated Location. This model is Called Wright-Pickston Model" (Wright, Pickton, & Callow, 2002; Wright, Eid, & Fleisher, 2009).

The second model is called Calof and Dishman's Model of CI. This model considers CI as a process which consists of four phases planning and focus, collection, analysis, and communication of intelligence, as well as the necessary processes, structures and organizational awareness and culture. Based on the above propositions, to what extent the firms follow this process needs to be measured. The above theoretical consideration was first used by Sawka, Frances & Herrin (1996) in developing the measurement tool. Calof and Dishman (2002) further refined it and proposed the model as shown in Figure 3-2.The same model is further refined and used by (Viviers W. , Saayman, Muller, & Calof, 2002) in South Africa. This model further improved and published by Dishman & Calof (2008) and Saayman, et al.(2008). According to Calof and Dishman's Model, CI capability of a firm depends upon the Competitive Intelligence process and Competitive Intelligence context.CI process consists of the following three constructs: "Planning and Focus, Collection, Communication and Analysis. CI context consists of the following four constructs: Awareness, Internal information, Formal infrastructure and Employee involvement"(Dishman & Calof, 2008).

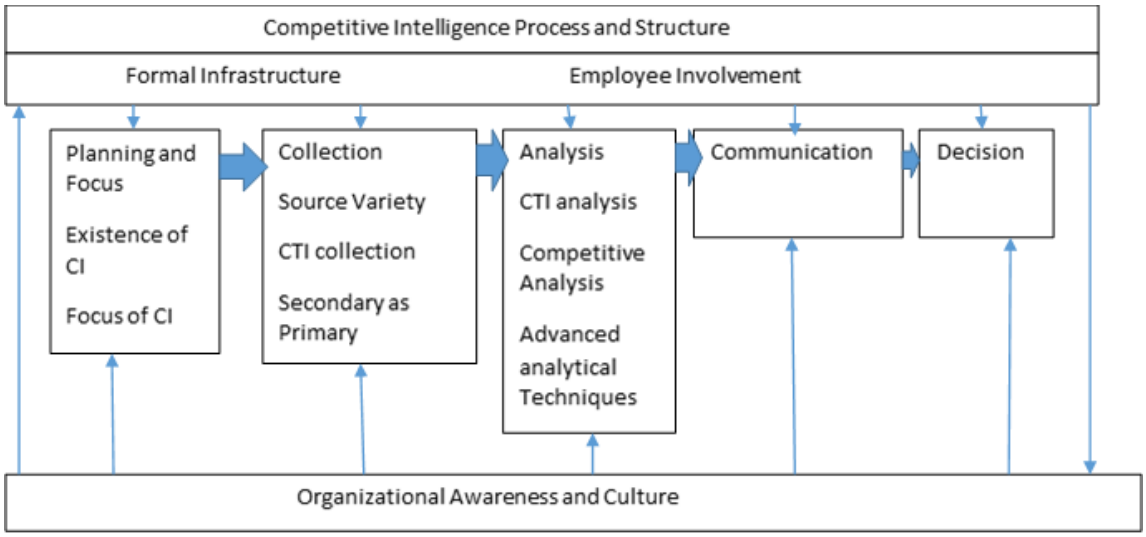

Figure 3.2: Competitive Intelligence Model Adopted from Calof and Dishman (2008)

In the research tool the final statements for competitive intelligence construct are taken from Saayman, et al., (2008). "The final questionnaire contains 37 Competitive Intelligence-related statements to be answered on Likert's five-point scale. The Likert scale statements were divided into two sections. In the first section, the respondent has to indicate to which degree he/she agreed or disagreed with 19 statements. In the second part the respondents had to indicate to what extent (never to always) they implemented a certain action" (Saayman, et al., 2008).

These statements are further divided according to the competitive intelligence process constructs and competitive intelligence context constructs as shown in Appendix-G and Appendix-H respectively.

3.6.2 Strategic Use of Competitive Intelligence

There is no universal way of defining strategic decisions (Yap, Rashid, & Sapuan, 2013). Dess and Robinson (1984) defined strategic decisions "as having a significant impact on the future state of the firm and/or resulting in the commitment of large

amounts of organizational resources" (Dess & Robinson, 1984)."For Competitive Intelligence strategic use, respondents answered two questions based on the importance of the strategic decision in their organization, and the frequency of CI use in strategic decision making" (Yap, Rashid, & Sapuan, 2013). The following are the decisions used to measure the importance of CI in strategic: "Supporting strategic decision making, Identifying early warning for threats,Identifying blind spots and opportunities,Performing industrial benchmarking, Supporting strategic planning and implementation, Supporting competitor assessment and tracking and Performing counterintelligence" (Yap, Rashid, & Sapuan, 2013).These decisions are evaluated on the 5 points Likert scale from highly undesirable to highly desirable. The following strategic decisions are considered to measure the frequency of use of competitive intelligence in strategic decision making, "Merger &acquisition, Strategic alliance, Market entry/exit,Vertical integration, New product/service development, Capacity expansion, Diversification, Divestment, Technology adoption, Global and Organisation" (Yap, Rashid, & Sapuan, 2013). These decisions are evaluated on the 5-point scale from Never to Always.

3.6.3 Measure of Business Performance

In conceptualizing organizational performance research have to deal with two fundamental issues: the first choice of a theoretical frame work to define organizational performance and second to identify an accurate, available measure that operationalizes organizational performance (Dess & Robinson, 1984). "A high correlation was found among the objective and subjective measure of organizational performance." (Dess & Robinson, 1984). This research used a subjective measure of

the performance of retail firms. The research selected 30 research papers in which the performance of the organization is the dependent variable and counted the variable used to measure the organisation performance. The parameters used in past researches for retail firm performance are shown in Table 3-1.

Table 3.1: Subjective Business Performance Parameter Used in Literature

Performance Parameter	No. of Times used	Author
Turnover/Total Sales	4	(Conant, Smart, & Solano-Mendez, 1993; Kara, Spillan, & DeShields, 2005; Megicks, 2005;Panigyrakis & Theodoridis, 2009)
Return on Investment	4	(Bridson, Evans, Mavondo, & Minkiewicz, 2013; Kara, Spillan, & DeShields, 2005; Megicks, 2005; Oh, Teo, & Sambamurthy, 2012)
Market Share	3	(Kara, Spillan, & DeShields, 2005; Oh, Teo, & Sambamurthy, 2012; (Panigyrakis & Theodoridis, 2009)
Return On Assets	2	(Bridson, Evans, Mavondo, & Minkiewicz, 2013); Oh, Teo, & Sambamurthy, 2012)
Gross Margin	2	(Bridson, Evans, Mavondo, & Minkiewicz, 2013; Panigyrakis & Theodoridis, 2009)
Revenue Growth	2	(Kara, Spillan, & DeShields, 2005; Oh, Teo, & Sambamurthy, 2012)
Sales per Employee	2	(Conant, Smart, & Solano-Mendez, 1993;Panigyrakis & Theodoridis, 2009)
Sales per Square Foot	2	(Conant, Smart, & Solano-Mendez, 1993; Panigyrakis & Theodoridis, 2009)
Overall Store Performance	2	(Bridson, Evans, Mavondo, & Minkiewicz, 2013; Conant, Smart, & Solano-Mendez, 1993)
Sales Growth	2	(Conant, Smart, & Solano-Mendez, 1993; Panigyrakis & Theodoridis, 2009)
Strategic Objective	1	(Bridson, Evans, Mavondo, & Minkiewicz, 2013)
Cash Flow Management	1	(Conant, Smart, & Solano-Mendez, 1993)
Customer Retention	1	(Megicks, 2005)
Effectiveness of Cost Containment	1	(Conant, Smart, & Solano-Mendez, 1993)
Financial Objective	1	(Bridson, Evans, Mavondo, & Minkiewicz, 2013)
Net income After Taxes	1	(Conant, Smart, & Solano-Mendez, 1993)
Net Profit	1	(Oh, Teo, & Sambamurthy, 2012)
Return on Sales	1	(Panigyrakis & Theodoridis, 2009)
Stock Age	1	(Panigyrakis & Theodoridis, 2009)

The parameters selected by using vote count method for the purpose of measuring the performance of retail firm include "Total Sales, Return on Investment, Market Share, Return on Assets, Gross Margin, Revenue Growth, and Sales per Employee and Sales per Square Foot". The selected parameters are subjectively evaluated on a five point Likert scale from much worse to much better. The respondents were asked to evaluate the impact of competitive intelligence on a particular performance parameter.

Apart from these, ten questions were asked related to the demographic characteristics of the manager and organizations. The questionnaire also contains the definition of Competitive Intelligence in order to update respondents about Competitive Intelligence concept, as per the research.

3.7 Validity and Reliability

The most extensively used tool to gather the data in social sciences is a questionnaire. The most important purpose of the data collection tool is to acquire reliable and valid information. Validity means "measures what is intended to be measured" (Cooper, Schindler, & Sharma, 2012).According to Malhotra & Dash (2013), the validity of an instrument is perfect if there is no measurement error. The difference in observed scale score and the true value of characterstics is equal to zero (Malhotra & Dash, 2013).

The main types of validity are Construct Validity, Content Validity and Face Validity (Zikmund, 2003).The validity of the constructs is confirmed through subjective evaluation and statistical measures.

As mentioned in the section of instrument design, the researcher uses the scale items which were already utilized by other researches. The items used for competitive intelligence construct had been used and modified in the previous work of Dishman &

Calof (2008),Saayman, et al.,(2008),Viviers, Saayman, Muller, & Calof, (2002). The items on the use of CI in strategic decisions are taken from the study of Yap, Rashid, & Sapuan (2013). The items on business performance are selected from the previous research on the bases of vote count method.The validity of business performance construct was eveluated subjectively with five academic researchers in the field of business performance and all have an agreement with the parameters used in operatinalizing business performance in this research.

Reliability: "Reliability concerns the extent to which a measurement of a phenomenon provides stable and consistent result"(Zikmund, 2003).The Cronbach Alpha coefficient measures the internal consistency of the set of items. Churchill (1979) recommended this measure to be used when measuring the internal consistency of a set of items. The value of Cronbach alpha should be more than 0.7 for good internal consistency (Churchill, 1979). The value of Cronbach alpha of each factor is more than 0.7 as shown in Table 3-2.

Table 3.2: Cronbach's Alpha Value for each Factor

Factor	Cronbach's Alpha
Planning and Focus	0.867
Collection	0.836
Communication and Analysis	0.895
Awareness	0.828
Internal Information	0.892
Internal Infrastructure	0.875
Employee Involvement	0.773
Importance of CI in Strategic Decision	0.854
Frequency of CI Use in Strategic Decisions	0.792
Business Performance	0.892

3.8 Statistical Techniques Used for Analysis

The study used various statistical techniques to fulfil its objective. Following are the statistical techniques and tests used to fulfil the objective.

- Missing Completely at Random (MCAR) test.
- Chi-Square Test of Independence.
- Confirmatory Factor Analysis

The software used for data analysis is SPSS version 22 and AMOS version 21.

3.8.1 Missing Completely at Random Test

Missing data are a common problem in survey research. Missing values are either random or non-random. Random missing values may occur because the respondent unintentionally did not answer a number of questions. Random missing values may also result from data entry mistakes. Non-random missing values may occur because respondent decisively does not answer a few questions. The respondents may be reluctant to answer some questions because of social desirability concerns about the content of the question. Little's MCAR test is used to find whether the respondent's answer has some pattern of missing value or not.

"Little's MCAR test is the most common test for missing cases being missing completely at random. If the p value for Little's MCAR test is not significant, then the data may be assumed to be MCAR and missing values are assumed not to matter for the analysis. List wise deletion of observations with missing values is appropriate, provided the number of missing values is not very large" (Little, 1988).

3.8.2 Chi-Square Test

It is the extensively used non-parametric statistical test that describes the extent of difference among the observed frequency and expected frequency. The following four essential assumptions should be fulfilled to apply the chi-square test.

1. The observed statistics must be independent of each other.
2. The statistics should be recorded in original units.
3. The minimum sample size should be more than 50 observations.
4. Each cell of the contingency table must have five or more than five observations.

Thus, the chi-Square test is one of the simplest non-parametric tests in statistical work where no assumption about the population being sampled is made.

The Chi Square Test is a statistical test which consists of three different types of analysis:

1. The Goodness of Fit.
2. Test for Homogeneity.
3. Test of Independence.

"The test for goodness of fit determines if the sample under analysis was drawn from a population that follows some specified distribution".

"The test for homogeneity answers the proposition that several populations are homogeneous with respect to some characteristic".

"The test for independence (one of the most frequent uses of Chi Square) is for testing the null hypothesis that two criteria of classification, when applied to a population of

subjects are independent. If they are not independent then there is an association between them"(Zikmund, 2003).

The research used the Chi-Square test for independence to find out the relation between competitive intelligence capabilities of the firms with their business performance. It used the following hypothesis

H0: There exists no relationship between competitive intelligence capability and business performance of the Indian retail firms

H1: There exists a relationship between competitive intelligence capability and business performance of the Indian retail firms

The firms are categorized into the following three categories on the basis of competitive intelligence capability score.

High Capability Firms: Firms having competitive intelligence capability score more than 75% of the total possible sum score of 175.

Medium Capability Firms: Firms having competitive intelligence capability score more than 50% of the total possible sum score of 175.

Low Capability Firms: Firms having competitive intelligence capability score of less than 50% of the total possible sum score of 175.

The firms are divided into two categories on the basis of the business performance score.

High Performance Firms and Low Performance Firms: the firms having scored more than or equal to 75% of the total score are considered being high performance firms and others are low performance firms.

3.8.3 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a multivariate statistical procedure that is used to test how well the measured variables represent the number of constructs. Confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) are similar techniques, but in exploratory factor analysis (EFA) data are simply explored and it provides information about the numbers of factors required to represent the data. In exploratory factor analysis, all measured variables are related to every latent variable. But in confirmatory factor analysis (CFA), researchers can specify the number of factors required in the data and which measured variable is related to which latent variable. Confirmatory factor analysis (CFA) is a tool that is used to confirm or reject the measurement theory." (Hair, Black, Babin, & Anderson, 2015).The following four step procedure is followed in confirmatory factor analysis: "Defining an individual construct, Developing the overall measurement model, Designing a study to produce empirical results, Assessing the measurement model validity.

Confirmatory Factor analysis is used to study the applicability of Calof and Dishman's model of CI in the Indian retail industry.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter synthesizes and analyses survey data collected during the course of the research. The questionnaire is the main data collection method of the study. It is divided into the following seven sub headings: Data Preparation, Sample Profile, Confirmatory Factor Analysis, Status of Competitive Intelligence in Indian Retail Industry, Competitive Intelligence and Strategy Formulation, and Competitive Intelligence and Business Performance. Data Preparation heading is further divided into the following subheadings: data cleaning, missing value analysis and treatment of missing value. Sample profile describes the characteristics of the sample. Confirmatory factor analysis section discusses the relevance of Calof and Dishman's Model of CI and its applicability in the Indian retail industry. Status of Competitive Intelligence in Indian Retail Industry section describes the performance of the Indian retail industry on various factors of competitive intelligence. Competitive Intelligence and Strategy Formulation discusses how Indian retail industry is using competitive intelligence for strategy formulation. Competitive Intelligence and Business Performance section discuss the quantitative analysis of competitive intelligence and its relation to business performance through a Chi-Square test.

4.2 Data Preparation

After the data collection, data preparation is the process of cleaning the data for various anomalies. The steps including in the data preparation process are data editing, data coding, data entry, and data cleaning. Data preparation process helps in

creating data which is ready for analysis. It is essential to clean the raw data before data analysis because erroneous data can be evidence for the wrong conclusion and defeat the purpose of the research.

4.2.1 Editing

Data editing is the first step in data preparation. It is the process of reviewing the raw data for any kind of errors and omissions and corrects them wherever feasible. The function of editing is to produce data which is correct and reliable according to the objective of the inquiry. The first step in data editing is to check for acceptance of questionnaires. Out of 187 questionnaires collected in the field, 7 questionnaires have been discarded in the field itself because of unengaged responses and a large proportion of missing values. Editing is the review of the questionnaires with the objective of increasing accuracy. There are 6 questionnaires which have been rejected because of the inconsistencies in response. This resulted in a final sample size of 174 respondents.

4.2.2 Coding

Data Coding is the process of assigning numbers to the options provided in the questions. Data Coding helps to combine the responses into a restricted number of categories. The way to build up a coding formation is to design a codebook. A codebook includes all variables in the questionnaire and specifies the coding rules to the variable. The codebook of the research is attached as an Appendix-J.

4.2.3 Data entry

After the coding of the questionnaire, the researcher enters the data into a system or computer software. The process of entering the data in to computer software is called data entry. It can be done indifferent ways for example manual with the help of a

keyboard, data entry through scanning. The researcher enters the data in to SPSS through manual data entry by using a keyboard.

4.2.4 Data Cleaning

Data Cleaning is the process of identifying missing values and outliers in the data and treatment of missing values and outliers. Missing value symbolizes values of a variable that is unidentified; either because respondents give an unambiguous response or their response was not correctly recorded. According to Hair, Black, Babin, & Anderson(2015) the process of identifying missing data has the following steps: "Determining the type of missing data, determining the extent of missing data, diagnosing the randomness of the missing data, selecting the imputation method"(Hair, Black, Babin, & Anderson, 2015).

4.2.5 Missing Value Analysis

The researcher did missing value investigation of the data in three parts: missing value analysis case wise, missing value analysis for categorical variables (Part A of the questionnaire), and missing value analysis for metric variables.

The total number of questionnaire were 174, which had been entered into SPSS for data analysis. After feeding the data in to the SPSS, case wise missing value analysis was done on the data. The researcher found the following cases have more than 15% missing value. These cases have a high percentage of missing value.

Table 4.1: Cases of High Percentage of Missing Value

Case Number	Missing Value Percentage
2	20.9
5	19.4
100	19.4
101	43.3
102	46.3
107	26.9

After removing the case numbers 2, 5, 100,101,102 and 107, from the analysis, the case wise missing value for a remaining sample of 168 is under acceptable limit less than 10 percent (Hair, Black, Babin, & Anderson, 2015).

The missing value analysis of categorical variables (Part A of the questionnaire) was found out as shown in Table 4-2.

Table 4.2: Univariate Statistics of Categorical Variables

Univariate Statistics of Categorical variables			
	N	**Missing**	
		Count	**Percent**
Total_employee	163	5	3.0
Designation	165	3	1.8
Gender	168	0	.0
Qualification	168	0	.0
Duration_with_company	157	11	6.5
Formal_CI_Department	168	0	.0
Duration_CI	127	41	24.4
Name_CI_Department	157	11	6.5
Employee_CI_Department	133	35	20.8

The missing values for each question of section A of the questionnaireare shown in Table 4-2. It was found out that the variable gender, qualification and question about the company having a competitive intelligence department has no missing value. The totalemployees, designation, duration with the company and name of competitive intelligence department have missing value percentage 3, 1.8, 6.5 and 6.5 respectively. These missing values are under the acceptable limit of 10 percent.

The two variable Duration_CI (Question 8, If Yes how long has it been operational?) and Employee_CI_Department(Question 10, Number of employees working full time in Competitive Intelligence Department) have high missing values but it is logical missing values because the firms which do not have formal competitive intelligence department or the firms which were answering "No" to formal competitive intelligence department are not eligible to answer to operationality of the competitive intelligence department and number of full time employees in competitive intelligence department. Table 4-3 and Table 4-4 show the missing values represented by code 99 which is logical missing value and code 9 is a real missing value. The real missing value for Duration_CI and Employee_CI_Department are 1.2% and 0.6 respectively as shown in Table 4-3 and Table 4-4.

Table 4.3: Tenure Wise Operationality of Competitive Intelligence Department

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	>5 years	110	65.5	86.6	86.6
	3 to <5 years	16	9.5	12.6	99.2
	5	1	.6	.8	100.0
	Total	127	75.6	100.0	
Missing	99(Logical Missing)	39	23.2		
	9(Real Missing)	2	1.2		
	Total	41	24.4		
Total		168	100.0		

Table 4.4: Number of Full Time Employee in Competitive Intelligence Department

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	More Than 15	111	66.1	83.5	83.5
	11-15	13	7.7	9.8	93.2
	6-10	5	3.0	3.8	97.0
	1-5	2	1.2	1.5	98.5
	5	2	1.2	1.5	100.0
	Total	133	79.2	100.0	
Missing	99(Logical Missing)	34	20.2		
	9(Real Missing)	1	.6		
	Total	35	20.8		
Total		168	100.0		

Missing value analysis for metric variables:

In the case of metric variables, 36 variables are found with missing value but all the missing value percentage is under 5. The maximum missing value in the variable Technology Adoption (D2_S9) is 4.17 percent. The second highest missing value is in the case of the variable “We make competitive Intelligence (e.g. collection and analysis technique) available to our employees” (S11); it is 3.97. Two more variables have a missingvalue of more than 2 percent remaining 32 variables have a missingvalue of less than 2 per cent as shown in Table 4-5.

Table 4.5: Missing Value Analysis of Metric Variable

Variable	N	Mean	Std. Deviation	Missing	
				Count	Percent
D2_S11	161.00	2.64	0.99	7.00	4.17
S9	162.00	3.10	1.10	6.00	3.57
S4	163.00	4.12	0.86	5.00	2.98
D1_S4	164.00	4.10	0.81	4.00	2.38
S1	165.00	4.45	0.74	3.00	1.79
S11	165.00	3.73	1.00	3.00	1.79
S22	165.00	3.91	1.00	3.00	1.79
S25	165.00	3.63	1.07	3.00	1.79
S26	165.00	3.01	0.99	3.00	1.79
S33	165.00	3.00	1.08	3.00	1.79
D1_S1	165.00	4.27	0.73	3.00	1.79
D2_S2	165.00	2.98	0.92	3.00	1.79
S6	166.00	3.55	1.01	2.00	1.19
S14	166.00	3.63	1.02	2.00	1.19
S17	166.00	3.72	1.13	2.00	1.19
S23	166.00	3.71	1.08	2.00	1.19
BP2	166.00	3.99	0.83	2.00	1.19
BP4	166.00	4.03	0.78	2.00	1.19
BP5	166.00	4.08	0.70	2.00	1.19
S7	167.00	3.23	0.99	1.00	0.60
S10	167.00	3.69	1.07	1.00	0.60
S16	167.00	3.80	1.11	1.00	0.60
S21	167.00	3.58	0.98	1.00	0.60
S24	167.00	3.90	0.98	1.00	0.60
S28	167.00	3.81	0.99	1.00	0.60
S32	167.00	2.92	1.04	1.00	0.60
S35	167.00	2.89	1.02	1.00	0.60
S36	167.00	3.09	0.99	1.00	0.60
S37	167.00	3.32	1.09	1.00	0.60
S38	167.00	3.46	1.07	1.00	0.60
D1_S2	167.00	4.21	0.78	1.00	0.60
D1_S5	167.00	3.96	0.80	1.00	0.60
BP1	167.00	4.05	0.79	1.00	0.60
BP3	167.00	3.96	0.78	1.00	0.60
BP6	167.00	4.10	0.75	1.00	0.60
BP8	167.00	4.16	0.79	1.00	0.60

Further analysis of missing value by "Little's MCAR test was performed to identify non response biasness. This test was done by the researcher to find out the pattern in missing values of categorical variables and metric variables. The chi square value is 2061.433, DF=2246, Sig = .998. The null hypothesis for Little's MCAR test is that there is no difference between expected missing values and observed missing values. As the p- value is higher than 0.05, accept the null hypothesis of the test that expected missing values and observed missing values are the same it is concluded that there is no pattern in missing values.

4.2.6 Treatment of Missing Values

According to Hair, Black, Babin, & Anderson(2015) there are four ways to treat missing values: "Substituting missing value with a neutral value, Substituting an imputed response by following a pattern of respondent's other responses, Case wise deletion, in which respondents with any missing responses are discarded from the analysis, Pair wise deletion, wherein only the respondents with complete responses for that specific variable are included" (Hair, Black, Babin, & Anderson, 2015).

In the data, the missing values are not very high and not following any pattern. Missing values are missing completely at random (MCAR). The missing value of categorical value has not been imputed. The missing values of metric variables are filled with a median of each variable. After imputing missing values, the variables are saved as the same variables as shown in Table 4-6.

Table 4.6: Missing Value Imputation of Metric Variables

	Variable	Number of Replaced Missing Values	Number of Valid Cases	Creating Function
1	S1	3	168	MEDIAN(S1,ALL)
2	S4	5	168	MEDIAN(S4,ALL)
3	S6	2	168	MEDIAN(S6,ALL)
4	S7	1	168	MEDIAN(S7,ALL)
5	S9	6	168	MEDIAN(S9,ALL)
6	S10	1	168	MEDIAN(S10,ALL)
7	S11	3	168	MEDIAN(S11,ALL)
8	S14	2	168	MEDIAN(S14,ALL)
9	S16	1	168	MEDIAN(S16,ALL)
10	S17	2	168	MEDIAN(S17,ALL)
11	S21	1	168	MEDIAN(S21,ALL)
12	S22	3	168	MEDIAN(S22,ALL)
13	S23	2	168	MEDIAN(S23,ALL)
14	S24	1	168	MEDIAN(S24,ALL)
15	S25	3	168	MEDIAN(S25,ALL)
16	S26	3	168	MEDIAN(S26,ALL)
17	S28	1	168	MEDIAN(S28,ALL)
18	S32	1	168	MEDIAN(S32,ALL)
19	S33	3	168	MEDIAN(S33,ALL)
20	S35	1	168	MEDIAN(S35,ALL)
21	S36	1	168	MEDIAN(S36,ALL)
22	S37	1	168	MEDIAN(S37,ALL)
23	S38	1	168	MEDIAN(S38,ALL)
24	D1_S1	3	168	MEDIAN(D1_S1,ALL)
25	D1_S2	1	168	MEDIAN(D1_S2,ALL)
26	D1_S4	4	168	MEDIAN(D1_S4,ALL)
27	D1_S5	1	168	MEDIAN(D1_S5,ALL)
28	D2_S2	3	168	MEDIAN(D2_S2,ALL)
29	D2_S11	7	168	MEDIAN(D2_S11,ALL)
30	BP1	1	168	MEDIAN(BP1,ALL)
31	BP2	2	168	MEDIAN(BP2,ALL)
32	BP3	1	168	MEDIAN(BP3,ALL)
33	BP4	2	168	MEDIAN(BP4,ALL)
34	BP5	2	168	MEDIAN(BP5,ALL)
35	BP6	1	168	MEDIAN(BP6,ALL)
36	BP8	1	168	MEDIAN(BP8,ALL)

4.3 Sample Profile

To study the profile of the respondents, questions were divided into two parts: the profile of the firm and profile of the respondent. Profile of the firm includes the following variables:

1. The sector of the retail industry.
2. A total number of employees in the firm.
3. Does the firm have a formal competitive intelligence department?
4. The department which deals with the competitive intelligence in the firm.

Profile of the Respondent includes the following variables.

1. Designation in the firm.
2. Gender
3. Educational Qualification
4. Duration with the firm.

Profile of the respondent firms: 168 firms were selected from 20 sectors of the retail industry as shown in Table 4-7. The maximum number of firms was representing apparel sector followed by footwear and electronics sector whereas Bathroom Accessories, Eye care and Eyewear, Furniture retail, Sports, Super market, Travel & Tourism have the least representation in the data.

Table 4.7: Retail Sector of Responding Firm

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Apparel	87	51.8	51.8	51.8
Footwear	17	10.1	10.1	61.9
Electronics	10	6.0	6.0	67.9
Fashion	10	6.0	6.0	73.8
Food & Beverages	9	5.4	5.4	79.2
Ayurvedic Beauty Product	5	3.0	3.0	82.1
Grocery Store	5	3.0	3.0	85.1
Departmental Store	3	1.8	1.8	86.9
Home Interior Products	3	1.8	1.8	88.7
Jewellery	3	1.8	1.8	90.5
Kids Retail	3	1.8	1.8	92.3
Lifestyle	3	1.8	1.8	94.0
Gift Retail	2	1.2	1.2	95.2
Watches	2	1.2	1.2	96.4
Bathroom Accessories	1	.6	.6	97.0
Eye care and Eyewear	1	.6	.6	97.6
Furniture Retail	1	.6	.6	98.2
Sports	1	.6	.6	98.8
Super Market	1	.6	.6	99.4
Travel & Tourism	1	.6	.6	100.0
Total	168	100.0	100.0	

Out of a total of 168 firms which participated in the survey 146 firms have more than 100 employees as shown in Table 4-8 and Figure 4-1. Only one firm has fewer than

10 employees and 5 firms have employees' strength between 10 to 50 employees. It shows that most of the firms chosen for the purpose of the study are large in size.

Table 4.8: Number of Employees Wise Profile of the Company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 100	146	86.9	89.6	89.6
	51-100	11	6.5	6.7	96.3
	10-50	5	3.0	3.1	99.4
	Less than 10	1	.6	.6	100.0
	Total	163	97.0	100.0	
Missing	9	5	3.0		
Total		168	100.0		

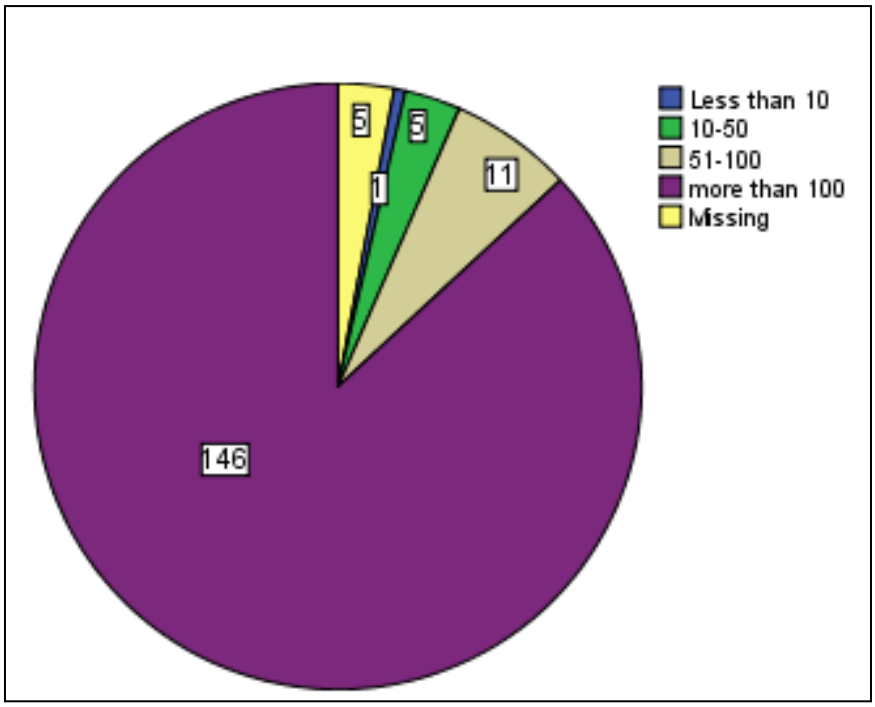

Figure 4.1: Number of Employees Wise Profile of the Company

Formal competitive intelligence department: As per the Table 4-9 Out of a total of 168 firms 130 firms have formal competitive intelligence department.

Table 4.9: Existence of Formal Competitive Intelligence Department

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Yes	130	77.4	77.4	77.4
	No	38	22.6	22.6	100.0
	Total	168	100.0	100.0	

The department which deals with the competitive intelligence in the firm: Out of 168 firms 65 firms have Marketing/Market Research which deals with competitive intelligence activities in their organization, 61 firms Sales and 24 firms Research & Development department deals with competitive intelligence activities in their organization as shown in Table 4-10. Nine firms have shown no response to this question.

Table 4.10: Department Dealing with Competitive Intelligence Activities

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Marketing/Market Research	65	38.7	41.4	41.4
	Sales	61	36.3	38.9	80.3
	Research& Development	24	14.3	15.3	95.5
	Separate Dedicated Department	3	1.8	1.9	97.5
	Information Technology	2	1.2	1.3	98.7
	Corporate Planning	1	0.6	0.6	99.4
	Other	1	0.6	0.6	100.0
	Total	157	93.5	100.0	
Missing	9	11	6.5		
Total		168	100.0		

The profile of respondent who represented the firms in the study includes his designation, gender, and qualification and duration of working with the firm. In terms of designation, the maximum representation is from store managers, out of 168 respondents 141 were store managers, 21 were head of marketing or strategic division, 3 had the designation of CEO as shown in Table 4-11 and Figure 4-2. Nine firms have shown no response to this question.

Table 4.11: Designation Wise Profile of the Respondent

Designation of Respondent in Firm					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Store Manager	141	83.9	85.5	85.5
	Head of Marketing/Strategic Division	21	12.5	12.7	98.2
	CEO/Director	3	1.8	1.8	100.0
	Total	165	98.2	100.0	
Missing	9	3	1.8		
Total		168	100.0		

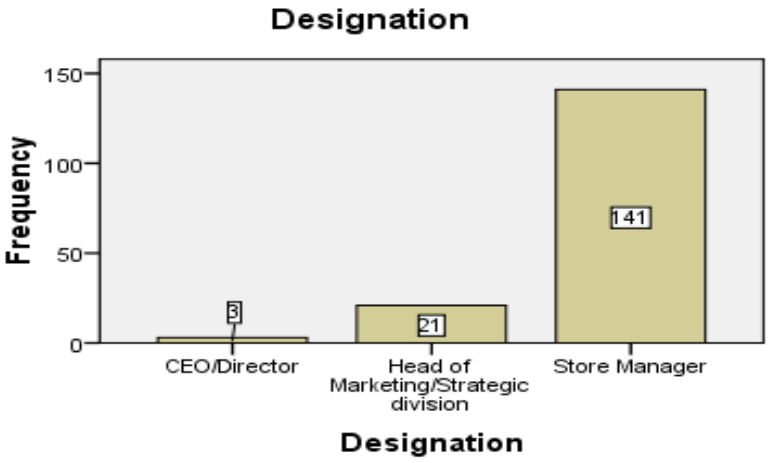

Figure 4.2: Designation Wise Profile of the Respondent

From Table 4-12 and Figure 4-3, it can be analyzed that out of 168 respondents 140 respondents were male and 28 were female. Out of 168 respondents' 123 respondents have post graduates educational qualification and 31 are undergraduates as shown in Table 4-13 and Figure 4-4.

Table 4.12: Gender Wise Profile Summary of the Respondents

Gender of Respondent					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Male	140	83.3	83.3	83.3
	Female	28	16.7	16.7	100.0
	Total	168	100.0	100.0	

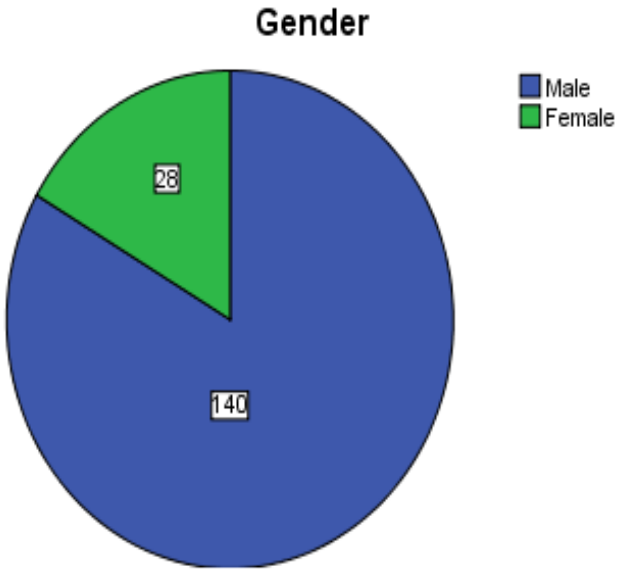

Figure 4.3: Gender Wise Profiles of the Respondents

The 91.7 per cent of respondent have Post graduate and graduate educational qualification.

Table 4.13: Qualification Wise Profile of Respondent

Qualification of Respondent				
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Undergraduate	31	18.5	18.5	18.5
Post Graduate	123	73.2	73.2	91.7
Other	14	8.3	8.3	100
Total	168	100		

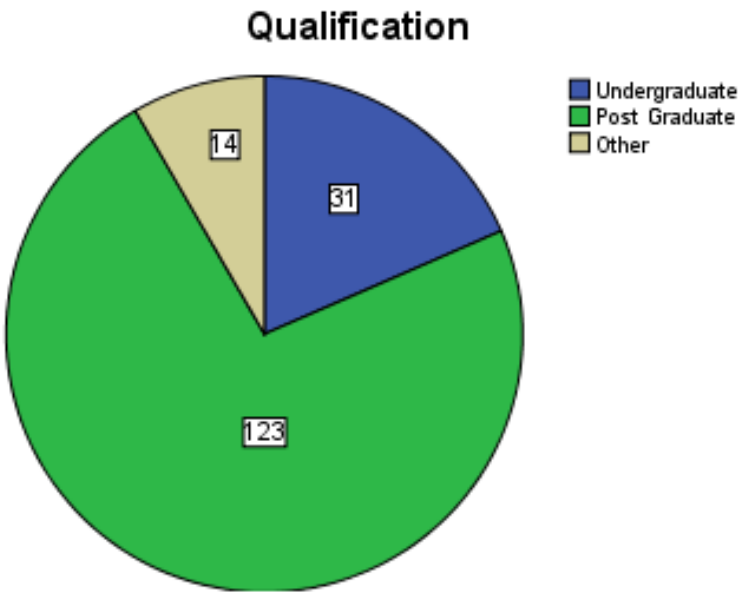

Figure 4.4: Qualification Wise Profile of Respondent

140 respondents have been working with the firm for 5 years or more than 5 years as shown in Table 4-14. Only two respondents working for less than 3 years participated in the survey.

Table 4.14: Duration of Respondent's Service with Organization

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	5 years or More than 5 Years	140	83.3	89.2	89.2
	More than 3 years to Less than 5 years	13	7.7	8.3	97.5
	Less than 1 Year	2	1.2	1.3	98.7
	More than 1 year to Less than 3 Years	2	1.2	1.3	100.0
	Total	157	93.5	100.0	
Missing	System	11	6.5		
Total		168	100.0		

4.4 Confirmatory Factor Analysis

It is a multivariate statistical technique which is applied to the analysis, how fit the measured statements signify the latent variable. It is also applied to confirm or reject the theory. According to previous researches, competitive intelligence capability of a firm depends upon the Process of CI and the Context of CI. In the research, the confirmatory factor analysis is applied to Competitive Intelligence Process and Competitive Intelligence Context separately. The research is explained through the following four stage process:

Stage 1: Define Individual Constructs

Stage 2: Develop the Overall Measurement Model

Stage 3: Design a Study to Produce Empirical Results

Stage 4: Assess Measurement Model Validity

4.4.1 Normality and Reliability Assessment

Before applying the confirmatory factor analysis, the normality and reliability has to be checked for the data set. To test normality Kolmogorov Smirnov test was used under which following hypotheses were tested.

H0: The sample data are not significantly different than a normal population.

H1: The sample data are significantly different than a normal population

The K-S test was conducted and the test values are shown in table 4.15. Since the p value [(Asymp. Sig. (2-tailed)] is greater than 0.05, we accept the null hypothesis which means that the data are normal. Reliability is already explained in chapter -3, page number 55.

Table 4.15: Tests of Normality

			Kolmogorov-Smirnova			Reliability Analysis	
Variable	Mean	Std. Deviation	Statistic	df	Sig.	Croanbach's Alpha	No. of Items
Planning and Focus	15.30	4.05	.995	168	.152	0.867	5
Collection	15.85	4.16	1.061	168	.119	0.836	5
Communication and Analysis	33.00	5.69	.865	168	.165	0.895	7
Awareness	16.39	2.95	.783	168	.217	0.828	4
Internal Information	20.31	4.86	1.208	168	.089	0.892	6
Formal Infrastructure	18.50	4.41	1.227	168	.115	0.875	5
Employee Involvement	9.58	2.52	1.149	168	.123	0.773	3
Business Performance	32.54	7.91	1.426	168	.136	0.892	8

4.4.2 The Competitive Intelligence Process Model

4.4.2.1 Definition of Individual Constructs

The definition of constructs and items are derived from either one of the following two common approaches, that is,scale from previous research or new scale development. Researcher operationalized the constructs from previous research as discused in chapter three.According to Saayman, et al.,(2008) the evidence of the CI process was there but the process had only three factors Planning and Focus, Collection, Analysis and Communication. On the basis of the given statements and factors, the model has been built according to the output of previous researches as shown in Figure 4.5.

4.4.2.2 Development of the Measurement Model

The model displays 17 measured indicator variables and three latent constructs. Three constructs have been identified from the theory in the competitive intelligence process model.

The model is based on the assumption of reflective measurement theory; the latent construct causes the measured variable. Thus, the arrows are drawn from latent constructs to measured variables. The constructs are independent and permitted to connect with all other latent factors. Each measured statement is permitted to connect with only one factor. Planning and Focus (F1), and Collection (F2) are indicated by five measured statements and Communication and Analysis (F3) is indicated by seven statements. All latent constructs are identified individually and model has more degree of freedom than paths to be estimated.

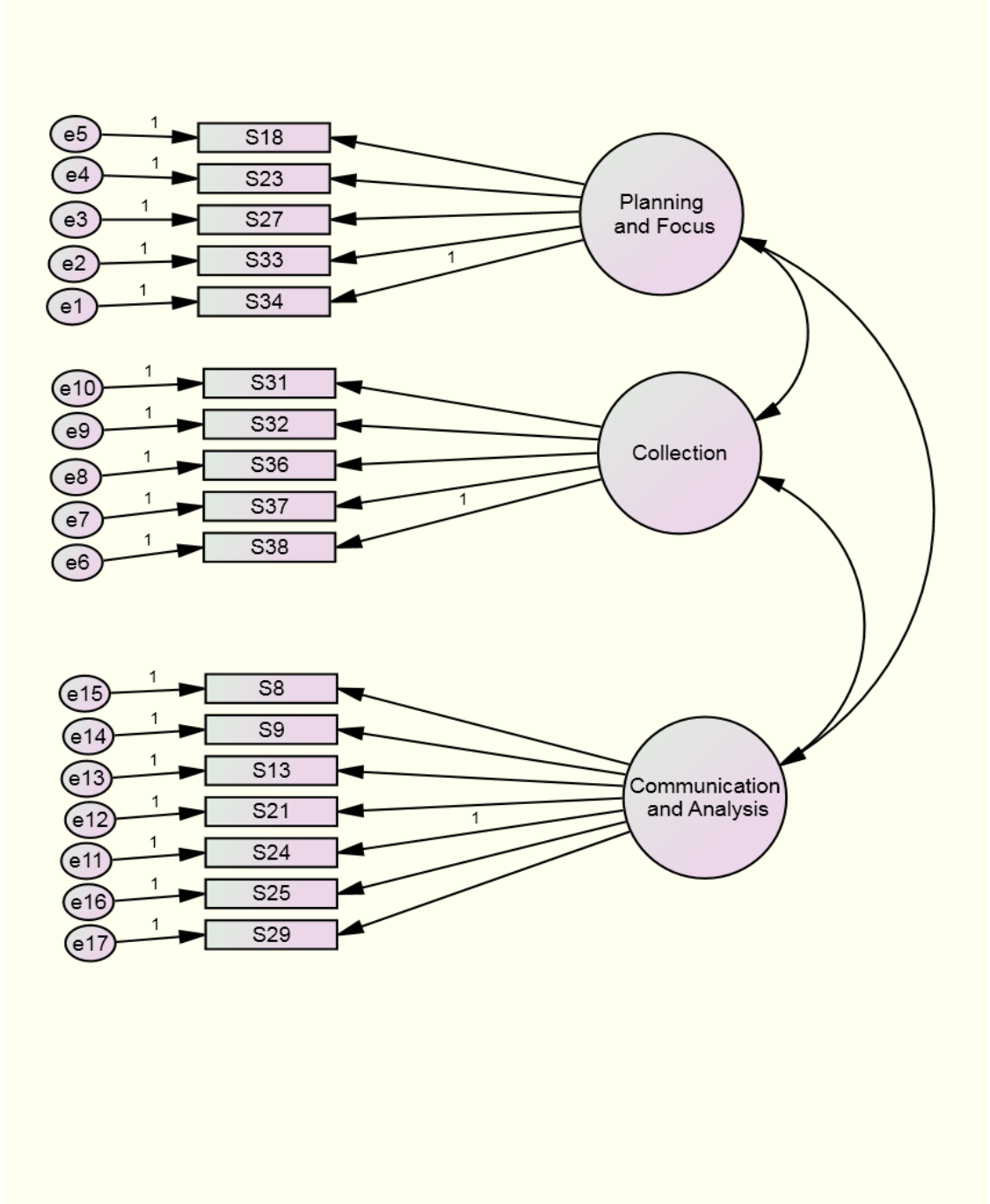

Figure 4.5: Competitive Intelligence Process Model

4.4.2.3 Designing Study to Produce Empirical Results

The issues related to missing data and data cleaning were discussed in the section of data preparation in detail. The model has 17 variables so the total number of unique variance and covariance terms is

(17 X 18)/2 = 153

The total number of estimated parameters =20(variance of error terms and latent construct) +14 (parameters are estimated for loading) + 3 (Unique covariance among construct) = 37.

The model is identified because 153 are greater than 37 and the degree of freedom is 116.

A number of distinct sample moments = 153

A number of distinct parameters to be estimated=37

Degree of Freedom = 153-47 = 116

The standardized estimated output of the model is shown in Figure 4-6.

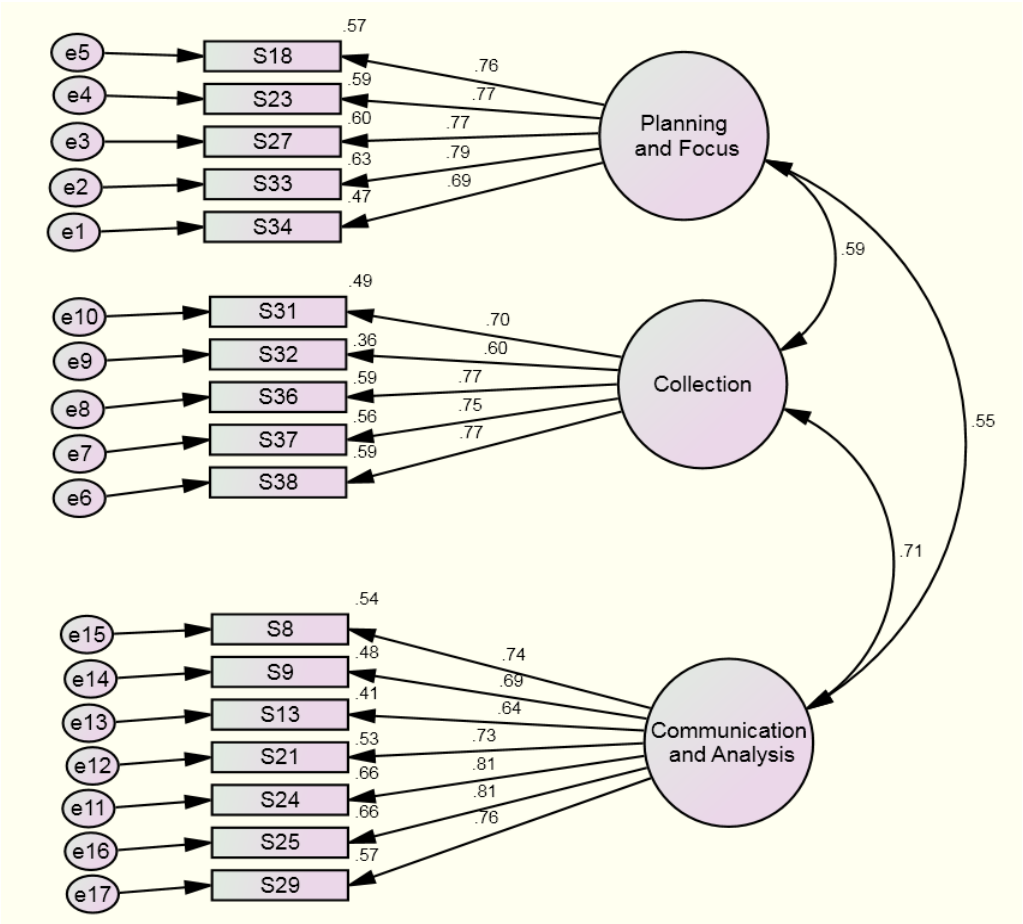

Figure 4.6: Output of Competitive Intelligence Process Model

4.4.2.4 Assessment of Measurement Model Validity

To evaluate the validity of the model, the researcher divides the output of the model into three parts, regression result; model fit indices and validity as shown in Figure 4-7.

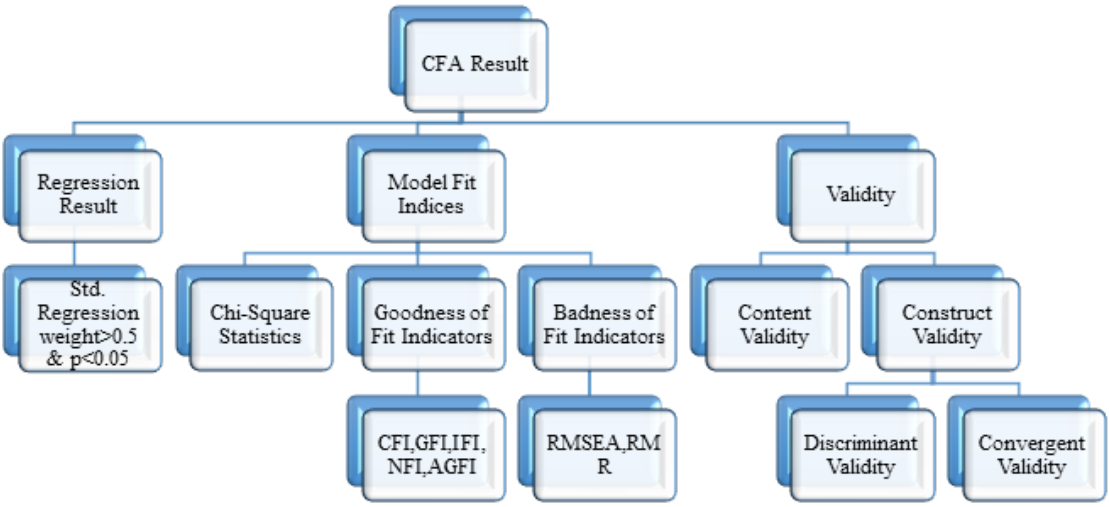

Figure 4.7: Divisions of CFA Output

Regression Result: The Regression weight of each statement is more than 0.5 and it is significant at 0.001(Level of Significance, α). It shows that all three factors are explaining its statements significantly and no statement has been qualified for deletion as shown in Table 4-16 and Figure 4-6. The least standardized regression weight is 0.60 between S32 and the collection factor.

Table 4.16: Standardized Regression Weight for CI Process Model

			Estimate
S34	<---	Planning and Focus	.69
S33	<---	Planning and Focus	.79
S27	<---	Planning and Focus	.77
S23	<---	Planning and Focus	.77
S18	<---	Planning and Focus	.76
S38	<---	Collection	.77
S37	<---	Collection	.75
S36	<---	Collection	.77
S32	<---	Collection	.60
S31	<---	Collection	.70
S24	<---	Communication_ and Analysis	.81
S21	<---	Communication_ and Analysis	.73
S13	<---	Communication_ and Analysis	.64
S9	<---	Communication_ and Analysis	.69
S8	<---	Communication_ and Analysis	.74
S25	<---	Communication_ and Analysis	.81
S29	<---	Communication_ and Analysis	.76

Model Fit Indices:

Statistical Significance of Chi-Square ($\chi^{2)}$) Statistics: It assesses the overall model fit.

H_0=There is no significant difference between the observed value and the expected value of the measured variable.

H_1= There is a significant difference between the observed value and the expected value of the measured variable.

The null hypothesis shows that "The model is perfectly fit." The overall model Chi-square χ^2 = 209.039(p<0.000) with 116 degrees of freedom. If p value comes out to be more than 0.05 (level of significance) then the model is perfectly fit but, in this case,the model is not perfectly fit. "The mathematical properties of chi square goodness of fit test reduce the fit of a model for the things that should not be detrimental to its overall validity. So it is often used with other measures of fit." (Hair, Black, Babin, & Anderson, 2015).

Absolute Fit Measure

In this category RMSEA is the most popular measure. It measures the badness-of-fit of the model, so it is good if it is less. "The values of RMSEA are 0.01, 0.05, and 0.08 to signify excellent, good, and mediocre fit, respectively." (MacCallum, Browne, & Sugawara, 1996). However, it is acceptable up to0.10 as per the cutoff for poor fitting models (Hair, Black, Babin, & Anderson, 2015). The value of the CI process model of RMSEA is 0.044which is in the range of good model fit as shown in Table 4-18. "The value of Normed Chi-Square (CMIN/DF) is 1.802. The value of Normed Chi-Square less than 2.0 signify a very good model fit and between 2.0 to 5.0 is signify an acceptable model fit" (Hair, Black, Babin, & Anderson, 2015). Thus, the value of Normed χ^2 suggests a very good fit for CI Process Model, as shown in Table4-17.

Table 4.17: CMIN (Normed Chi-Square) for CI Process Model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default Model	37	209.04	116	.000	1.80
Saturated Model	153	.000	0		
Independence Model	17	2097.35	136	.000	15.42

Table 4.18: RMSEA for CI Process Model

Model	RMSEA	LO 90	HI 90	PCLOSE
Default Model	.044	.030	.058	.000
Independence Model	.262	.251	.273	.000

Incremental Fit Indices

The most commonly used index is CFI in the category of Incremental fit indices. "The value of CFI should be more than 0.95 for a good fit and it is acceptable up to 0.90. The value of CFI less than 0.90 is considered to be unacceptable" (Hair, Black, Babin, & Anderson, 2015). The Competitive Intelligence process model has CFI's value of more than 0.95. The model is considered to be a good fit. The other indicators are also in the acceptable range as shown in Table 4-19.

Table 4.19: Baseline Comparisons Incremental Fit Indices

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default Model	.900	.883	.878	.944	.952
Saturated Model	1.000		1.000		1.000
Independence Model	.000	.000	.000	.000	.000

Summary of Model-Fit-Indices:

The summary of model-fit-indices is shown in Table 4.20. The output of CFA includes many goodness-of-fit indices which have been discussed. The fitness of the model should be judged on the basis of at least one absolute fit measure and one incremental fit measure. The value of RMSEA and CFA is 0.044(less than 0.05) and 0.953(more than 0.95) respectively; both are in the category of good model fit (Hair, Black, Babin, & Anderson, 2015). The GFI, AGFI and LISREL are influenced by

sample size. So it is recommended not to consider them for analyzing model fit (Sharma, Mukherjee, Kumar, & Dillon, 2005).

Table 4.20: Summary of Goodness-of-Fit Indices

Goodness of Fit Statistics	
Chi-Square (χ^2)	209.04(p=0.000)
Degree of Freedom	116
Absolute Fit Measure	
Normed Chi-Square(CMIN/DF)	1.802
RMSEA(Root Mean Square Error of Approximation)	0.044
90 percent confidence interval of RMSEA	(0.030,0.058)
RMR(Root Mean Square Residual)	0.078
Incremental Fit Indices	
NFI(Normed Fit Index)	0.900
CFI(Comparative Fit Index)	0.953
RFI(Relative Fit Index)	0.883

Construct Validity of the CI Process Model

The validity of a scale is referred to as "the degree to which a scale measures what it is supposed to measure" (Cooper, Schindler, & Sharma, 2012). Construct validity, "it is the degree of confidence that a set of measured statements signify the latent construct they are intended to measure" (Hair, Black, Babin, & Anderson, 2015).Campbell and Fiske (1959) recommended two aspects to measure the construct validity: first is convergent validity and second is discriminant validity. "Convergent validity is the degree of confidence that a construct is well measured by its measured variables. Discriminant validity is the degree of confidence that two latent constructs

are unrelated." (Campbell & Fiske, 1959). Convergent validity is measured with the help of AVE and CR (Fornell & Larcker, 1981).

The regression's results of model authenticate that all loading in the CI process model is very significant as essential for convergent validity. "The individual standardized loading should be at least 0.5" (Hair, Black, Babin, & Anderson, 2015). As shown in Table 4-16, the standardized loading for all the statements is more than 0.5. The minimum standardized loading in the model is 0.601 between S32 and Factor 2 (Collection).

Calculation of Average Variance Extracted (AVE) and Construct Reliability (CR).

Squared multiple correlations are the variance of the individual statement (dependent Variable) explained by the respective factor (Independent variable) as shown in Table 4-21 and Table 4-22. The AVE is the variance explained by the latent construct as compared to measurement error (Residuals). "The value of AVE more than 0.5 means good convergent validity of the latent constructs." (Hair, Black, Babin, & Anderson, 2015). In the model of CI process, the average variance explained (AVE) for latent construct F1 (Planning and Focus), F2 (Collection) and F3(Communication and Analysis) is 0.577, 0.519 and 0.551respectively. The model has AVE values for each latent construct is more than 0.5 as shown in Table 4-22.

Table 4.21: Squared Multiple Correlations of CI Process Model

	Estimate
S18	.574
S23	.587
S27	.596
S33	.629
S34	.474
S31	.487
S32	.361
S36	.588
S37	.564
S38	.592
S8	.541
S9	.476
S13	.414
S21	.530
S24	.662
S25	.659
S29	.572

Table 4.22: AVE Calculation of CI Process Model

Statements	**F1(Planning and Focus)**	**F2(Collection)**	**F3(Communication and Analysis)**
S18	.574		
S23	.587		
S27	.596		
S33	.629		
S34	.474		
S31		.487	
S32		.361	
S36		.588	
S37		.564	
S38		.592	
S8			.541
S9			.476
S13			.414
S21			.530
S24			.662
S25			.659
S29			.572
AVE	0.572	0.520	0.551
CR	0.869	0.843	0.895

The second measure for convergent validity is Construct Reliability (CR). It measures the internal consistency of the statements. "The value of CR above 0.7 shows very good convergent validity of the latent construct but it is also acceptable up to 0.5" (Hair, Black, Babin, & Anderson, 2015). In the model of CI process, the CR for latent construct F1 (Planning and Focus), F2 (Collection) and F3 (Communication and Analysis) are 0.869, 0.843 and 0.895 respectively. The model has CR values for each latent construct more than 0.7. The value of CR above 0.7 shows very good internal consistency. There is no convergent validity problem in the model as AVE>0.5 and CR>0.7 for each latent construct.

Discriminant Validity of the CI Process Model

It is the degree of confidence that two latent constructs are unrelated (Campbell & Fiske, 1959). If the correlation between two latent constructs is high, it means the model has poor discriminant validity. "The value of the correlation between the latent construct of more than 0.85 in absolute value indicates poor discriminant validity"(Kenny, 2015). As shown in Table 4-23 the correlation between latent constructs is not very high.

Table 4.23: Correlation between Latent Constructs

			Estimate
Planning_ and Focus	<-->	Collection	.59
Planning_ and Focus	<-->	Communication_ and Analysis	.55
Collection	<-->	Communication_ and Analysis	.71

The factors of the competitive intelligence process model have discriminant validity between its latent factor because AVE is more than MSV and ASV as showed in Table 4-24.

Table 4.24: Summary of Validity Measures for CI Process Model

	AVE	CR	MSV	ASV
Factor 1 Planning and Focus	0.572	0.869	0.348	0.325
Factor 2 Collection	0.520	0.843	0.500	0.423
Factor 3 Communication and Analysis	0.551	0.895	0.500	0.397

4.4.3 The Competitive Intelligence Context Model

Competitive intelligence capabilities of a firm consist of the CI process and CI context. The researcher has discussed the competitive intelligence process in the previous section. This section discusses the competitive intelligence context model. According to Saayman, et al., (2008) the competitive intelligence context model has four factors: "Awareness (F1), Internal Information (F2), Formal Infrastructure (F3) and Employee Involvement (F4)." The statements which define the factors are shown in Appendix-H. On the basis of the given statements and factors, the model has been built according to the output of previous researches. The input model for competitive intelligence context is shown in Figure 4-8.

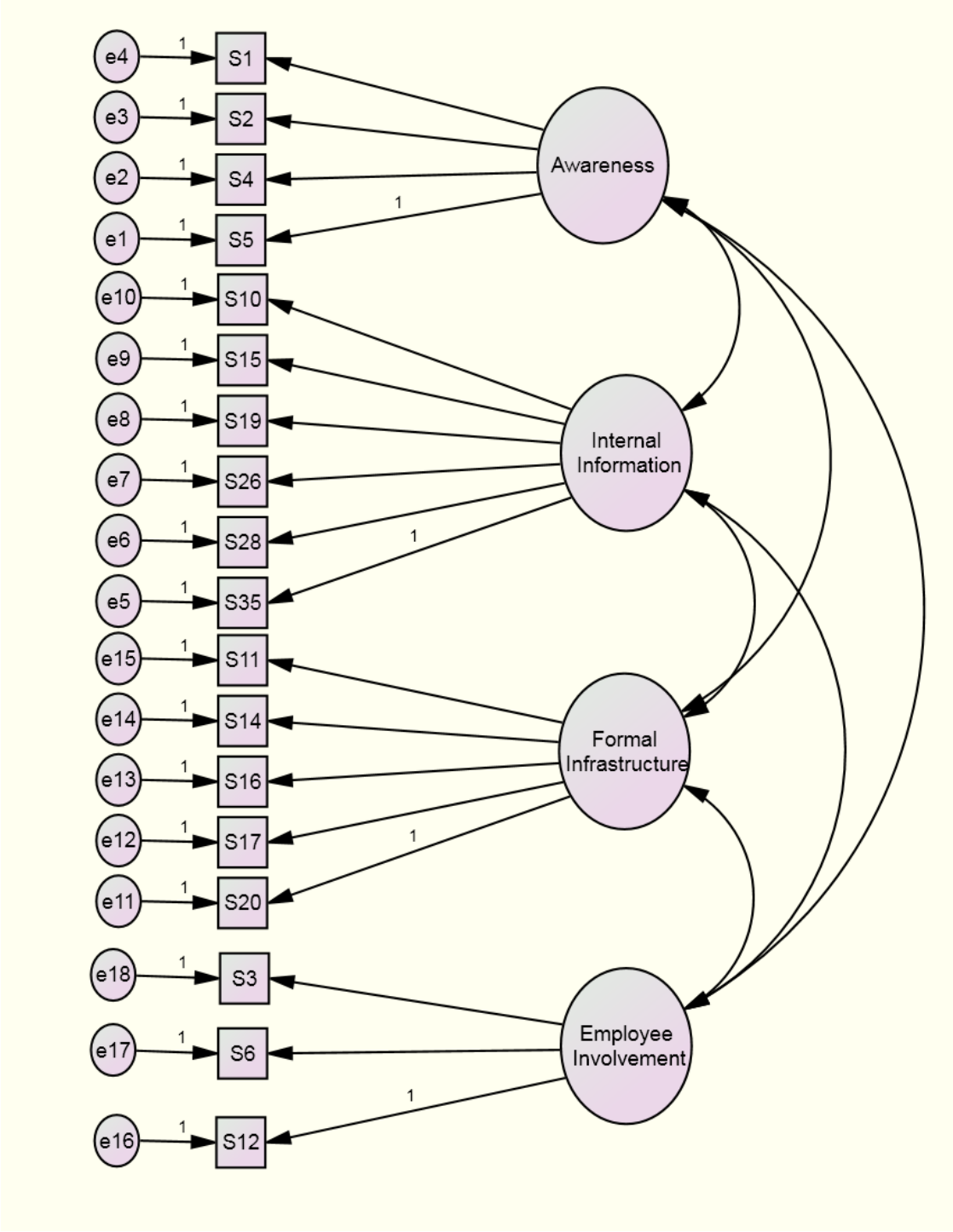

Figure 4.8: Competitive Intelligence Context Model

4.4.3.1 Designing Study to Produce Empirical Results

The design of the study has already been explained in chapter 3 in detail. The context model of competitive intelligence has four constructs and each has three or more than

three observed statements. The model has 18 observed variables so the total number of distinctive variance and covariance terms is

(18 X 19)/2 = 171

The total number of estimated parameters is 22(Variance of error terms and Latent variables) +14 (Parameters are estimated for loading) + 6 (Unique covariance among construct = 42

The model is identified because 171 are greater than 42 and DF (Degree of Freedom) of the model is 129 (171-42). This model is recursive.

The number of distinct sample moments = 171

A number of distinct parameters to be estimated= 42

Degree of Freedom (171-42) = 129

The standardized estimated output of the model is shown in Figure 4-9.

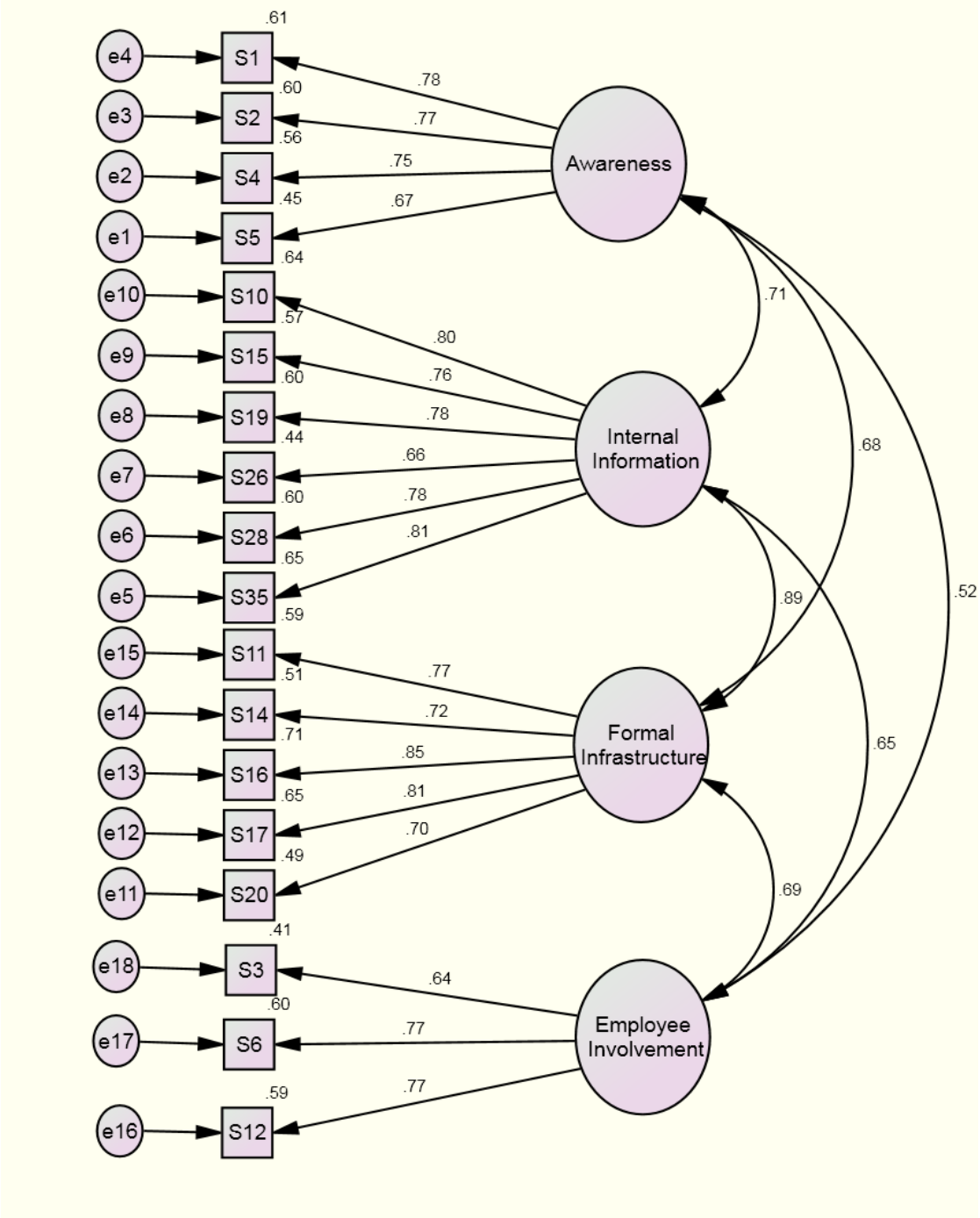

Figure 4.9: Output of Competitive Intelligence Context Model

4.4.3.2 Assessment Measurement Model Validity

To measure the validity of competitive intelligence context model, the researcher divides the output of confirmatory factor analysis into three parts: regression result; model fit indices and validity.

Regression Result: The unstandardized regression weight of factors in defining each statement is significant and a C.R (Critical Ratio) value for each statement is more than 2 and significant at 0.001(Level of Significance, α). It means each statement has a significant loading on the respective factor and no statement has been qualified for deletion.

The standardized regression weight of each statement is more than 0.5. It shows each statement is sufficiently predicted by its latent variable or factor. The least standardized regression weight is 0.632 between Employee Involvement (F4) and S3 ("Most employees understand what competitive intelligence is") as shown in Table 4-25 and Figure 4-9.

Table 4.25: The Standardized Regression weight of CI Context Model

			Estimate
S5	<---	Awareness	.672
S4	<---	Awareness	.751
S2	<---	Awareness	.771
S1	<---	Awareness	.779
S35	<---	Internal_ Information	.805
S28	<---	Internal_ Information	.778
S26	<---	Internal_ Information	.662
S19	<---	Internal_ Information	.776
S15	<---	Internal_ Information	.757
S10	<---	Internal_ Information	.802
S20	<---	Formal_ Infrastructure	.702
S17	<---	Formal_ Infrastructure	.805
S16	<---	Formal_ Infrastructure	.845
S14	<---	Formal_ Infrastructure	.717
S11	<---	Formal_ Infrastructure	.770
S12	<---	Employee_ Involvement	.767
S6	<---	Employee_ Involvement	.774
S3	<---	Employee_ Involvement	.639

Model Fit Indices:

Statistical Significance of Chi-Square ($\chi^{2)}$) Statistics: It assesses the overall model fit. The null hypothesis in this case is

H_0=There is no significant difference between the observed value and the expected value of the measured variable.

H_1= There is a significant difference between the observed value and the expected value of the measured variable.

The null hypothesis shows that "the model is perfectly fit". The overall model has Chi-square χ^2 = 331.099 ($p<0.000$) with 129 degrees of freedom. "The mathematical properties of χ^2 test decrease the fit of a model for the things that should not be detrimental to its overall validity so it is often used with other measures of fit" (Hair, Black, Babin, & Anderson, 2015).

Absolute Fit Measure:

In this category RMSEA is the most popular measure. It measures the badness-of-fit of the model. So it is good if it is less. In the model of CI context, the value of RMSEA is 0.0632 which is in the range of good model fit (Hair, Black, Babin, & Anderson, 2015).The value of Normed Chi-Square (CMIN/DF) is 1.667. Thus, the Normed χ^2 suggests a good model fit for CI Context Model, as shown in Table 4-26.

Table 4.26: Normed Chi-Square (CMIN/DF) For CI Context Model

Model	NPAR	CMIN	DF	P	CMIN/DF
Default Model	42	215.30	129	.000	1.667
Saturated Model	171	.000	0		
Independence Model	18	1935.19	153	.000	12.65

Incremental Fit Indices:

The most commonly used index is CFI in the category of Incremental fit indices. "The value of CFI should be more than 0.95 for good fit and it is acceptable up to 0.90, the value of CFI less than 0.90 is signified an unacceptable model" (Hair, Black, Babin, & Anderson, 2015). The Competitive Intelligence context model has CFI's value of more than 0.95. The model is a good fit. The other indicators are also in the acceptable range as shown in Table 4-27.

Table 4.27: Baseline Comparison of CI Context Model

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default Model	.889	.868	.897	.942	.952
Saturated Model	1.000		1.000		1.000
Independence Model	.000	.000	.000	.000	.000

Summary of Model-Fit-Indices:

The summary of model-fit-indices is shown in Table 4-28. The value of RMSEA and CFI is 0.069(less than 0.08) and 0.953(more than 0.95) respectively both are in the category of good model fit(Hair, Black, Babin, & Anderson, 2015).

Table 4.28: Summary of Goodness-of-fit Indices of CI Context Model

Goodness of Fit Statistics	
Chi-Square(χ^2)	331.03 (p = 0.000)
Degree of Freedom	129
Absolute Fit Measure	
Normed Chi-Square(CMIN/DF)	1.667
RMSEA	0.063
Root Mean Square Residual(RMR)	.078
Incremental Fit Indices	
Normed Fit Index(NFI)	0.889
Comparative Fit Index(CFI)	0.951
Relative Fit Index(RFI)	0.868

The convergent validity is measured through Average Variance Extracted (AVE) and Construct Reliability (CR). (Fornell & Larcker, 1981).

The results of standardized regression weight authenticate that all loading in CI context model is very significant as essential for convergent validity. "The individual Standardized loading should be at least 0.5" (Hair, Black, Babin, & Anderson, 2015).

Calculation of AVE and CR

Squared multiple correlations are the variance of the individual statement which is explained by the respective latent factor as shown in Table 4-29. The AVE is the variance explained by the latent construct as compared to Residuals. "The value of AVE more than 0.5 signifies a good convergent validity of the latent constructs." (Hair, Black, Babin, & Anderson, 2015). In the model of CI context, the AVE for latent construct F1 (Awareness), F2 (Internal Information), F3 (Formal Infrastructure) and F4 (Employee Involvement) is 0.55, 0.58, 0.60 and 0.53 respectively. The model has AVE values for each latent construct is more than 0.5.

Table 4.29: AVE and CR Calculation of CI Context Model

Statement	Awareness(F1)	Internal Information(F2)	Formal Infrastructure(F3)	Employee Involvement(F4)
S1	0.61			
S2	0.59			
S4	0.56			
S5	0.45			
S10		0.64		
S15		0.58		
S19		0.61		
S26		0.44		
S28		0.61		
S35		0.66		
S11			0.59	
S14			0.52	
S16			0.72	
S17			0.66	
S20			0.49	
S3				0.41
S6				0.59
S12				0.59
AVE	0.55	0.58	0.60	0.53
CR	0.83	0.90	0.88	0.77

The second measure for convergent validity is Construct Reliability (CR). It measures the internal consistency of the statements. In the model of CI context, the CR for latent construct F1 (Awareness), F2 (Internal information), F3 (Formal infrastructure) and F4(Employee involvement) is 0.83, 0.90, 0.88 and 0.77 respectively. The model has CR values for each latent construct which are more than 0.7. The value of CR above 0.7 shows excellent internal consistency.

Table 4.30: Summary of Validity Measures for CI Context Model

	AVE	**CR**	**MSV**	**ASV**
Factor1 Awareness	0.553	0.832	0.504	0.435
Factor 2 Internal Information	0.587	0.895	0.792	0.563
Factor 3 Formal Infrastructure	0.596	0.881	0.792	0.568
Factor 4Employee involvement	0.530	0.772	0.477	0.384

Discriminant Validity of the CI Context Model

It is the degree of confidence that two latent constructs are unrelated (Campbell & Fiske, 1959). If the correlation between two latent constructs is high, it shows the latent constructs in the model has poor discriminant validity. The value of the correlation between the latent construct of more than 0.85 in absolute value indicates poor discriminant validity (Kenny, 2015).

Table 4.31: Correlations between Factors of CI Context Model

	Awareness	**Internal Information**	**Formal Infrastructure**	**Employee Involvement**
Awareness	-	0.708	0.685	0.523
Internal Information	0.708	-	0.890	0.655
Formal Infrastructure	0.685	0.890	-	0.689
Employee Involvement	0.523	0.655	0.689	-

In the model of CI context F2 (Internal Information) and F3 (Formal Infrastructure) are weak on the discriminate validity so they are not two different constructs but one construct. This model has three constructs: first is Awareness (F1), second is the combination of Internal Information (F2) and Formal Infrastructure (F3) and third is Employee Involvement (F4).

4.5 Status of Competitive Intelligence in Indian Retail Industry

To analyze the current status of competitive intelligence in the Indian Retail Industry, competitive intelligence construct has been studied according to Calof and Dishman's model of CI. According to this model Competitive Intelligence construct has two parts: Competitive Intelligence Process and Competitive Intelligence Context.

4.5.1 Competitive Intelligence Process in Indian Retail Industry

The output of confirmatory factor analysis confirms that the Indian retail industry has three phases of Competitive Intelligence process: Planning and Focus, Collection and Communication and Analysis. The overall performance of Indian retail firms on these phases has been investigated by analyzing the total sum score of the firm in the respective phase. If the average score of the firms is more than 75 % of the total sum score of the factor, it means that firms are practising an advanced level of Competitive Intelligence in the respective factor. If the average score of the firms is more than 50% of the total score of the factor it means firms are practising intermediate level. If the average score is less than 50% of the total score of the factor it means firms are practising a basic level of competitive intelligence in that particular factor.

4.5.1.1 Factor 1: Planning and Focus

This factor consists of five statements which are measured on five points Likert scale. All five statements are positive. So there is no need to reverse the coding of statements. The total possible sum score in Planning and Focus construct is 25. As shown in Table 4-32. Indian Retail firms have a mean score of 15.30. It is 61.2% of the total score. The mean score of firms on Planning and Focus is more than 50% of the total score. So Indian Retail firms are practising an intermediate level of Planning and Focus.

4.5.1.2 Factor 2: Collection

This factor consists of five statements. All five statements are positive so there is no need to reverse the coding of statements. The total possible sum score in Collection construct is 25. As shown in Table 4-32. Indian Retail firms have a mean score of 15.85. It is 63.4% of the total score. The mean score of Indian Retail firms on Collection factor is more than 50% and less than 75% of the total score. So Indian Retail firms are practising an intermediate level of collection.

4.5.1.3 Factor 3: Communication and Analysis

This factor consists of seven statements. All five statements are positive so there is no need to reverse the coding of statements. The total possible sum score in Communication and Analysis construct is 35. As shown in Table 4-32. Indian Retail firms have a mean score of 25.29. It is 72.3% of the total possible sum score. The mean score of Indian Retail firms on Communication and Analysis factor is more than 50% and less than 75% of the total sum score. So Indian Retail firms are practising an intermediate level of Communication and Analysis.

Indian retail firms in terms of following the competitive intelligence process are categorized as practitioners of the intermediate level of competitive intelligence. In the comparison of three factors, Indian firms are comparatively good in Communication and Analysis and weak in Planning and Focus as shown in Table 4-32.

Table 4.32: Descriptive Statistics of Latent Factors of CI Process

	N	Minimum	Maximum	Mean	Std. Deviation
Planning and Focus	168	5.00	23.00	15.30	4.05
Collection	168	5.00	25.00	15.85	4.16
Communication and Analysis	168	11.00	33.00	25.29	5.69

4.5.2 Competitive Intelligence Context in Indian Retail Industry

Competitive Intelligence context consists of four factors: Awareness, Internal Information, Formal Infrastructure and Employee Involvement. The output of confirmatory factor analysis shows that the Indian retail industry has three factors in Competitive Intelligence context. It does not have four factors as given by Calof and Dishman's model of CI. Indian retail firms do not differentiate between Internal Information and Formal Infrastructure. Indian Retail industry has the following three factors: Awareness, Internal Information and Formal Infrastructure, and Employee Involvement.

The overall performance of firms on these factors is investigated on the bases of the mean score and total score on the respective factor. If the mean score of the firms is more than 75 % of the total score of the factor, it means that firms are practising

advance level of Competitive Intelligence in the respective factor. If the mean score of the firms is more than 50% of the total score of a particular factor it means firms are practising intermediate level. If the mean score is less than 50% of the total score of a particular factor it means firms are practicing a basic level of competitive intelligence in a particular factor.

4.5.2.1 Factor 1: Awareness

This factor consists of four statements which are measured on five points likert scale. All four statements are positive so there is no need to reverse the coding of statements. The total possible sum score in Awareness construct is 20. Indian Retail firms have a mean score of 16.39. It is 81.95% of the total sum score. The mean score of firms on Awareness is more than 75% of the total score. So Indian Retail firms have an advance level of Awareness. As shown in Table 4-33.

4.5.2.2 Factor 2:Internal Information and Formal Infrastructure

Indian retail firms do not differentiate between Internal Information and Formal Infrastructure. This combined factor has eleven statements. The total possible sum score is 55. The mean score of the firms comes out to be is 35.5. It is 64.5 % of the total sum score. The mean score of Internal Information and Formal Infrastructure is more than 50% of the total score. So Indian Retail firms have an intermediate level of Internal Information and Formal Infrastructure. As shown in Table 4-33.

4.5.2.3 Factor 3:Employee Involvement

This factor consists of three statements which are measured on five points likert scale. All three statements are positive so that there is no need to reverse the coding of statements.

The total possible score in Employee Involvement construct is 15. Indian Retail firms have a mean score of 9.58. It is 63.98% of the total score. The mean score of firms on Employee Involvement is more than 50% of the total sum score. So Indian Retail firms have an intermediate level of Employee Involvement. As shown in Table 4-33.

Indian retail firms in terms of competitive intelligence context have an advanced level of Awareness, intermediate level of Internal Information and Formal Infrastructure, and Employee Involvement.

Table 4.33: Descriptive Statistics of Latent Factors of CI Context

	N	Minimum	Maximum	Mean	Std. Deviation
Awareness	168	7.00	20.00	16.39	2.95
Internal Information and Formal Infrastructure	168	12.00	51.00	35.54	4.16
Employee involvement	168	4.00	14.00	9.58	2.52

4.6 Competitive Intelligence and Strategy Formulation

To investigate the role of CI in strategy formulation of Indian Retail Industry, information has been collected on two parameters: the importance of CI and frequency of use of CI in strategic decision making.

4.6.1 Importance of Competitive Intelligence in Strategy Formulation

The question was asked "How important to your organisation is the use of CI for the following purposes/roles?" The importance of competitive intelligence is measured on the following seven parameters: "supporting strategic decision making, identifying early warning for threats, identifying blind spots and opportunities, supporting competitor assessment and tracking, performing industrial benchmarking, supporting

strategic planning and implementation" on a five-point scale from very unimportant to very important. The mean score of each parameter is more than 4 except supporting strategic planning and implementation. As shown in Table 4-34 the importance of CI in all the purposes/roles has high means which is between important to very important. The Indian retail industry gives importance to competitive intelligence in decision making.

Table 4.34: Descriptive Statistics of Importance of CI in Strategic Decision Making

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Supporting strategic decision making	168	2.00	5.00	4.26	.73
Identifying early warning for threats	168	1.00	5.00	4.21	.78
Identifying blind spots and opportunities	168	1.00	5.00	4.18	.75
Supporting competitor assessment and tracking	168	1.00	5.00	4.11	.80
Performing industrial benchmarking	168	1.00	5.00	4.10	.80
Performing counterintelligence	168	1.00	5.00	4.02	.80
Supporting strategic planning and implementation	168	1.00	5.00	3.96	.80

The mean score of the Importance of CI is 28.85. It is 82.43% of the total possible sum score of 35. The mean score of the importance of competitive intelligence is

shown in Table 4-34. It is more than 75% of the total score so it is in the advanced category. Indian retail firms give importance to the use of competitive intelligence for decision making.

4.6.2 Frequency of Competitive Intelligence Used in Strategy Formulation

The question was asked, "How frequently do you use CI in the following strategic decision making activities?" The frequency of competitive intelligence used in strategic decisions is measured on the following eleven strategic decisions: "merger and acquisition, strategic alliance and joint venture, market entry/exit, vertical integration, capacity expansion, new product/service development, diversification, divestment, technology adoption, global, and organisational". The frequency of use of CI in strategic decisions was measured with a five-point scale from never (1) to always (5).

As shown in Table 4-35 the mean score of the frequency of CI used in strategic decisions is not more than 4 in any decision. The three decisions include strategic alliance, organization and technology adoption have a mean score of less than three. The less mean score shows that the use of competitive intelligence for strategic decision making is low.

Table 4.35: Descriptive Statistics of the Frequency of CI used in Strategic Decisions

	Number of Cases	Minimum	Maximum	Mean	SD
New product/service development	168	1.00	5.00	3.90	.96
Merger & acquisition	168	1.00	5.00	3.81	.92
Capacity expansion	168	1.00	5.00	3.76	.94
Diversification	168	1.00	5.00	3.70	.95
Vertical integration	168	1.00	5.00	3.57	.99
Market entry/exit	168	1.00	5.00	3.43	.96
Global	168	1.00	5.00	3.11	.93
Divestment	168	1.00	5.00	3.05	1.04
Strategic alliance	168	1.00	5.00	2.98	.91
Organisation	168	1.00	5.00	2.66	.97
Technology adoption	168	1.00	5.00	2.30	.99
Valid N (listwise)	168				

The total mean score of the frequency of CI used in strategic decisions is 36.26. It is 65.93% of the total possible sum score of 55. The mean score of the frequency of competitive intelligence used in strategic decisions is shown in Table 4-36. The mean score of the frequency of competitive intelligence used in strategic decisions importance is more than 50% of the total sum score. So it is in the intermediate category.

Table 4.36: Descriptive Statistics of the Strategic Role of Competitive Intelligence

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Total Score of Importance of CI	168	10.00	35.00	28.85	3.88
Total Score of strategic use of CI	168	11.00	55.00	36.26	6.88
Valid N (listwise)	168				

4.7 Competitive Intelligence and Business Performance

The relationship means some form of union or association between variables. "There are various types of statistical relationships which can exist among variables in social science. The relationship may be causal relation so that when one variable changes, this causes changes in another variable. Another relationship among variables is no less real, but the causal nature of the connection may be obscure or unknown. Variables may be related statistically, even though there is no causal relation between variables". The relationship between competitive intelligence and business performance is investigated through the use of the Chi-square test of independence. It investigates whether the observed frequency of variables is high enough to show that the two variables are dependent on each other or not.

4.7.1 Competitive Intelligence

Competitive Intelligence capability of a firm is the sum of the competitive intelligence process score and competitive intelligence context score of the firm. There are 17 statements in the competitive intelligence process and 18 statements in competitive intelligence construct measured on the five-point scale so the total possible score is 175. The mean score of competitive intelligence capability of Indian Retail firms is 121.89 with a standard deviation of 22.97 as shown in Table 4-37. The competitive intelligence capability of firms is measured on the basis of the total sum score of competitive intelligence.

Table 4.37: Descriptive Statistics of Business Performance and CI Construct

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Total Score of Business Performance	168	19.00	40.00	32.54	3.91
Addition of Process and Context	168	49.00	162.00	121.89	22.97
Valid N (listwise)	168				

The firms are categorized in to the three following categories

High – Firms which have competitive intelligence capability score more than 75% of the total possible sum score of 175. It means firms which have total sum scored on statements more than or equal to 131 considered being in the high category. The number of firms which falls in this category is 74 as shown in Table 4-37.

Medium - Firms which have competitive intelligence capability sum score more than 50% of the total possible sum score of 175. It means firms which have total sum scored equal to or more than 88 and less than 131 are considered to be in the medium category. The number of firms which falls in this category is 74 as shown in Table 4-37.

Low-Firms which have competitive intelligence capability sum score less than 50% of the total possible sum score of 175. It means firms which have total sum scored less than 88 are considered to be in a low category. The number of firms which falls in this category is 20 as shown in Table 4-38.

Table 4.38: Three Categories of Firms on the Basis of CI Score

Three Categories of Competitive Intelligence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	74	44.0	44.0	44.0
	Medium	74	44.0	44.0	88.1
	Low	20	11.9	11.9	100.0
	Total	168	100.0	100.0	

4.7.2 Business Performance

The eight parameters include "Total Sales, Return on Investment, Market Share, Return on Assets, Gross Margin, Revenue Growth, and Sales per Employee and Sales per Square Foot have been selected by vote count method". The selected parameters were subjectively evaluated on a five point Likert scale from very low impact to very high impact. The question was asked how the introduction of Competitive Intelligence impacts the business performance of your organisation as compared to previous performance (Prior to the introduction of Competitive Intelligence). Please indicate on a scale from 1 to 5, where 1 very low impact and 5 equals very high impact.

The mean score of business performance is 32.54 with a standard deviation of 3.91. It is 81.35% of the total possible score of business performance construct. It means firms believe that their performance has been improved after implementation of Competitive Intelligence as shown in Table 4-39.

Table 4.39: Descriptive Statistics of Business Performance

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Total Score of Business Performance	168	19	40	32.54	3.91
Valid N (listwise)	168				

The firms are divided on the basis of Business Performance score. The firms which have scored more than or equal to 75% of the total score are considered as High Performance firms and others are Low Performance firms as shown in Table 4-40. There are 135 firms out of 168 which are categorized as high performance firms and 33 are categorized as low performance firms.

Table 4.40: Frequency Table of Firms on the Basis of Business Performance

Two Categories of Business Performance					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	High 30-40	135	80.4	80.4	80.4
	Less than 30	33	19.6	19.6	100.0
	Total	168	100.0	100.0	

4.7.3 Chi-Square Test of Independence

The Chi-Square test of independence is applied between two variables Competitive Intelligence capability and Business Performance, the hypotheses are

$H_{0:}$ There exists No relationship between Competitive Intelligence Capability and Business Performance.

$H_{1:}$ There exists a relationship between Competitive Intelligence Capability and Business Performance.

In terms of independence and dependence, these hypotheses could be stated

H_0: Competitive Intelligence Capability and Business Performance are independent.

H_1: Competitive Intelligence Capability and Business Performance are dependent.

Assumptions of Chi-Square test of Independence: The sample observations have to be Independent; all expected counts have to be greater than one and not more than 20% of cells with an expected count of less than five. All these assumptions are fulfilled in the research as shown in Table 4-41.

Table 4.41: Contingency Table of Chi-Square Test of Independence

		Two Categories of Business Performance	
		High	**Low**
Three Categories of Competitive Intelligence	High	68	6
	Medium	60	14
	Low	7	13

Table 4.42: Pearson Chi-Square Tests

		Two Categories of Business Performance
Three Categories of Competitive Intelligence	Chi-square	32.329
	df	2
	Sig.	.000*
*. The Chi-square statistic is significant at the 0.05 level.		

The *p*-value (labeled Sig.) of Chi-square test is less than 0.05 as shown in Table 4-42. "It means competitive intelligence capability and business performance are not independent of each other and there is a statistical relationship between competitive intelligence capability and business performance. It means companies which have a high score in competitive intelligence capabilities have a high score on performance and companies who have a low score in competitive intelligence capabilities have a low score on performance".

The six companies which were high on competitive intelligence capabilities but low on performance consists of two Apparel, two are fashion and one departmental store and one furniture retail sector firms. As shown in table 4.42.

Table 4.42: Companies have high competitive intelligence capabilities with low business performance

Company	Sector	CI_category	CI_Score	BP_Category	BP_Score
R Trends	Apparel	1	132	2	26
BGS	Fashion	1	134	2	23
Michel kors	Fashion	1	135	2	29
Store99	Departmental Store	1	134	2	29
Zodiac	Apparel	1	132	2	29
Stroika	Furniture Retail	1	134	2	29

The seven companies which were low on competitive intelligence capabilities but high on performance consists of two Apparel, one pharma retail, one home interior products, one food & beverages, one gift retail and one Jewellery retail sector firms as shown in table 4.43.

Table 4.43: Companies have low competitive intelligence capabilities with high business performance

Company	Sector	CI_category	CI_Score	BP_Category	BP_Score
Sanjivani	Pharma Retail	3	79	1	37
Gokaldas	Apparel	3	86	1	36
Pure	Home Interior Products	3	82	1	33
Indian Kitchen	Food & Beverages	3	58	1	36
Divniti	Gift Retail	3	71	1	32
Gitanjali	Jewellery	3	85	1	36
Studio firang	Apparel	3	73	1	31

CHAPTER 5

SUMMARY, CONCLUSION AND SCOPE FOR FUTURE RESEARCH

5.1 Introduction

After having presented the theoretical background, the methodology employed and the findings of this research in the preceding four chapters, the present chapter discusses the summary of the thesis and conclusion. It also describes the limitation of the research and directions for potential research.

5.2 Summary of the Research

The objectives of the research were to find out the status of CI in Indian retail industries, the role of CI in strategy formulation and the relationship of CI with business performance in the Indian retail industry. “Indian industries” is a broader term which includes all type of industries. To achieve the objectives of the research the study confined the scope of research to Indian retail industry only. Retail Industry was selected on the basis of competition and uses of technology in the industry.

The first chapter entitled **“Introduction”** described the significance of CI and how CI is different from other similar concepts used in business vocabulary. In the first chapter the researcher also discussed the concept of retailing, present formats of Indian retail industry and facts about the global retail industry. In the end, the structure of the research report is also described.

The second chapter entitled **"Literature Review"** synthesises the previous research done under the following headings: the origin of CI, the definition of CI, CI in other countries, CI and strategy formulation and competitive intelligence and business performance. After the synthesis of previous researches, it was found that the previous researches have not studied the competitive intelligence in Indian industries. It was found that previous researches have not studied the role of competitive intelligence in the strategy formulation of Indian industries and its relation to business performance in Indian industries.

The third chapter entitled **"Research Objective and Methodology"** discussed the research methodology followed in the study to fulfil the objectives of the research. To achieve the objectives of the research, the target population was defined as the brick and mortar modern retail outlets operating in India. The target population includes the MNC retail firms also with a condition that the Indian operations have to be operated by an Indian firm. The structured questionnaire was used to gather information from the target population. The questionnaire consists of five sections: section A deals with profile questions related to firm and representative of the firm, section B and section C have statements related to competitive intelligence capabilities of the firm. Section D consists of questions related to the importance and use of competitive intelligence in strategy formulation, section E deals with the impact of competitive intelligence on business performance. The data was collected from Delhi NCR region; Delhi NCR region has been selected on the basis of the highest density of modern retail in India. The data has been collected from 168 retail firms on the basis of the judgmental sampling procedure.

The fourth chapter entitled **"Data Analysis and Interpretation"** of the research deals with data analysis and interpretation. The data cleaning has been done by analyzing the missing values through missing value analysis procedure of the SPSS software. According to Calof and Dishman's Model, CI capability of a firm consists of the competitive intelligence process and competitive intelligence context. CI process consists of three factors: planning and focus, collection, communication and analysis". CI context consists of four factors: awareness, internal information, formal infrastructure and employee involvement". Confirmatory factor analysis was applied to confirm the applicability of the Calof and Dishman's Model of Competitive intelligence in the Indian retail industry. It was found by the output of confirmatory factor analysis that Indian retail industry follows all factors of competitive intelligence process but due to the weak discriminant validity between internal information and formal infrastructure; Indian retail industry follows three factors of competitive intelligence context awareness, internal information and formal infrastructure and employee involvement. The study measured the status of competitive intelligence in the Indian retail industry through the average score of all responding firms on a factor as a percentage of the total possible score of the factor. If the average score is more than 75 percent of the total score, it means firms have an advanced level of competitive intelligence capabilities. If the mean score lies between 50%-75% firms have an intermediate level of capability of that particular factor. If the average score is less than 50% of the total score, it means firms are practising a basic level of competitive intelligence in that particular factor. The competitive intelligence process factors in Indian retail industry are at an intermediate level. Indian Retail firms are practising intermediate level of Planning and Focus, Collection, and

Communication and Analysis. The study found that Indian retail firm follows an advanced level of awareness but an intermediate level of Internal Information and Formal Infrastructure and Employee Involvement. The role of CI in strategy formulation is measured through the importance of CI in strategy formulation and the frequency of using CI for strategy formulation. The study found that Indian retail industry shows high importance to the use of CI for strategic decision making, but the frequency of use of CI for strategic decision making is low. The research also found that the competitive intelligence capabilities of a firm and business performance are related to each other.

5.3 Conclusion

High competition in the Indian retail industry, leads the enhancement in the competitive intelligence capabilities of Indian firms. In light of the objectives of the research, the researcher analyses the competitive intelligence capabilities of Indian retail firms and its relationship with business performance. Objective wise conclusion based on findings is as follows:

5.3.1 Status of Competitive Intelligence in Indian Retail Industry

Competitive intelligence capability of the firm has two parts: CI Process and CI Context. CI Process has the following three phases: "Planning and Focus, Collection, and Communication and Analysis". Indian retail firms have the presence of all three phases. The Competitive Intelligence Process in Indian retail firms is at the intermediate level and Indian retail firms are comparatively good at communication and analysis but weak at planning and focus and collection. Competitive Intelligence

Context has the following four factors: Awareness, Internal Information, Formal Infrastructure and Employee Involvement. Indian retail firms have only three factors for competitive intelligence context. Indian retail firms do not differentiate between internal information and formal infrastructure. Indian Retail industry has three factors: awareness, internal information and formal infrastructure, and employee involvement.

Indian Retail firms have an advanced level of awareness but an intermediate level of Internal Information and Formal Infrastructure. Employee involvement is also at an intermediate level in Indian retail firms. The reason for high awareness is an informal way of collecting information by managers. Owing to lack of formality in information collection leads to an intermediate level of internal information, formal infrastructure and employee involvement.

5.3.2 Role of Competitive Intelligence in Strategy Formulation

The role of CI in strategy formulation is studied in two parts: the importance of CI in strategy formulation and frequency of use of CI in the strategic formulation. The Indian retail firms show high importance to use of CI for strategic decision making but the frequency of use of CI for strategic decision making is low.

5.3.3 Relationship between Competitive Intelligence and Business Performance

Indian retail firms have been divided into three groups on the basis of the total score of the competitive intelligence process and competitive intelligence context: high capability firms, medium capability firms and low capability firms. The firms have been also divided on the basis of business performance score: high performance firms

and low performance firms. It has been found by Chi-square test of independence that competitive intelligence capability and business performance are not independent of each other and there is a statistical relationship between competitive intelligence capability and business performance. It shows that most of the companies who have a high score in competitive intelligence capabilities have a high score on performance and companies which have a low score in competitive intelligence capabilities have a low score on performance.

The competitive intelligence practice in Indian retail industry is at the intermediate level. Indian retail industry follows all factors of the competitive intelligence process. Indian retail industry does not differentiate between internal information and formal infrastructure factors ofcompetitive intelligence context. The Indian retail firms give high importance to the use of competitive intelligence for strategic decision making but the frequency of use of competitive intelligence for strategic decision making is low. Competitive intelligence capability and business performance are not independent of each other. The research has found a statistical relation between competitive intelligence capabilities of the firm and its business performance. The results of the research show that the firms having a high score on competitive intelligence capability are high performing firms, the firms having a low score on competitive intelligence capabilities are low performing firms.

5.4 Managerial Implication

The fast changing business environment and the globalization of competition has resulted in the need for companies to fully understand the effect and consequences of these changes on their position in the market, and be able to make the necessary

adjustments in their practices and their strategic planning, in order for the company to develop and maintain competitive advantage in the market. The importance of good practice of Competitive Intelligence has been widely acknowledged in many researches, it is however often unnoticed in management practice. Most of the literature available on the subject of CI is still highlighting the importance of "why" managers use CI when in fact all managers already fully understood "why" CI was carried out. However, it was also evident that they lacked the knowledge in "how" to carry out their CI activities to gain maximum benefits. The following paragraphs will highlight the managerial implications of the findings of the research.

With regard to the status of competitive intelligence in Indian Retail Industry, it has advance level of awareness about competitive intelligence but lacking in employee involvement, internal information and formal infrastructure. The managers need to put emphases on formalization of competitive intelligence activities and ensure employee involvement to gain maximum benefits, it could be achieved by involving middle and lower level managers in the meetings of strategic discussion of higher level managers so that front line managers should be aware of organizational expectation about competitive intelligence output.

The managers of Indian retail industry show high importance to use competitive intelligence in strategy formulation but actual implementation of competitive intelligence for strategy formulation is missing, frequency of use of competitive intelligence for strategic decision making is low. The main aim of organizational strategy is to establish, build, defend and maintain competitive advantage. The development of marketing strategy requires both extensive analysis of internal and external environments and a mixture of useful intelligence. The main problem is

`how' to integrate competitive intelligence to strategy formulation in Indian Retail Industry. It could be done by formalizing the intelligence activities and integrated them with strategy formulation stages from information collection to decision making. In Indian Retail Industry business performance of the firm is depend on competitive intelligence capability of the firm. The research provides justification to allotment of organization resources to the practice of competitive intelligence. The results of our initial study would serve to encourage managers to focus on the phenomenon and practice of competitive intelligence.

5.5 Limitations of the Study

Limitations are inherent in all empirical research studies. Limitations provide an idea to develop new research work for another researcher. Following are the limitations of this research work.

- This study is a cross-sectional study. So establishing a causal relation between competitive intelligence capabilities of the firm and business performance is not feasible.
- The research is conducted for retail industry only; online retail market space has not been covered.
- Due to the sensitive nature of the topic, the field of application as well as the level of competition that surrounds the activities of the Indian retail firms, it was difficult to get access to the target respondents and persuade them to talk about their business practice such as competitive intelligence and strategy, although the researcher followed ethical standards and gave assurances of confidentiality.

Approvals were sought and obtained from the university authority as a form of assurance to the retail firm involved in absolute confidentiality.

- The survey has been conducted in the Delhi-NCR region on the basis of the highest penetration of brick and mortar modern retail store. India is a highly diversified country. So it is possible that different regions of the country have different competitive intelligence practices.

5.6 Future Research Direction

The present study has analysed competitive intelligence capabilities of Indian retail firms and its relationship with business performance, during the course of study researcher has identified research directions and on the basis of limitation of this study, the study proposed following research direction:

1. An in depth case study of some of the Indian retail firms having strong competitive intelligence infrastructure can be conducted as longitudinal study so that causal relation can be established between competitive intelligence capability and performance of the firm.
2. Indian retail industry practices of competitive intelligence can be compared with developed countries retail industry practices of competitive intelligence.
3. The research could be conducted for measuring the perception of senior managers towards competitive intelligence. This would provide knowledge of the senior manager's negligence to comprehend and bolster the focused competitive intelligence.
4. The study could be further extended to include the online market space.

5. Competitive intelligence practices of the unorganized retail store could also be an area for future research.
6. The relationship of competitive intelligence capability of firms with other constructs like competitive advantage and customer satisfaction could also be an area to explore for research.
7. The research can also be conducted in other Indian industries also.
8. The relationship of competitive intelligence capability and business performance can be further investigated with regression analysis or structure equation modeling multivariate analysis.
9. The future research would investigate the role of variables (firm size, competition, technology etc.) on the relationship of competitive intelligence with business performance.

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APPENDICES

Appendix-A Comparison of Different Intelligence Terms

	Future Orientation	Focus	Methodology	Value added	Ties to Decision Making	Scope
Environmental Scanning	Yes	Acquiring General Information of events in the environment	Scanning Process	Yes/ No	Strong	Broad; contains Business Intelligence
Business Intelligence	Yes	Interpretation of information about changes in the environment	Intelligence Cycle	Yes	Strong	Part of Environment Scanning contains all other intelligence terms
Competitive Intelligence	Yes	Interpretation of information about the competitive position	Intelligence Cycle	Yes	Strong	Part of Business Intelligence
Competitor Intelligence	Yes	Interpretation of information about competitors	Intelligence Cycle	Yes	Strong	Part of Business Intelligence
Market Intelligence	Yes	Interpretation of information with the focus on customers	Intelligence Cycle	Yes	Strong	Part of Business Intelligence
Political Intelligence	Yes	Interpretation of information about political factors	Intelligence Cycle	Yes	Strong	Part of Business Intelligence
Marketing Research	Yes	Information from the environment about firms marketing plans	Marketing Research Process	Yes	Strong	Narrow, but touches on other approaches

Information Management	Yes or No	Management of IT, Information policy planning, information systems, information flows	N/A	Yes /No	Strong	Broad, contains information systems

Appendix-B Stages of Competitive Intelligence

Time – Period	**Pre 1980**	**1980-1987**	**1988-1999**	**1999-PRESENT**
Stages	Competitive Data Gathering	Industry and Competitors Analysis	Competitive Intelligence	Competitive Intelligence as Core Competency
Key Defining Events	Porter's 1980 Book on Competitive Strategy	The founding of the SCIP	The establishment of Competitive Intelligence Review	Competitive Intelligence Courses taught in business schools across the world
Attributes				
Degree of Formality	Informal	Emerging Formal Units	Formal	Integration of formal and informal activity
Orientation	Tactical	Tactical	Mixed	Strategic
Analysis	Little or none	Limited Quantitative	Both Quantitative and Qualitative	Qualitative emphasis
Top Management Attention	Low	Limited	Moderate	High
Link to Decision-Making	Little	Weak	Strong	Direct Input
Location				
Principle Location of CI Professionals	Library/Marketing	Planning/Marketing	Marketing/Planning/CI Unit	CI Units/Marketing/Planning
Key Issues	Development of Skills in Information Acquisition	Building a Business Case for CI, Spy Image, Analytical Skill Development	Demonstrating bottom-line input, Demand vs. supply-driven CI, Counter-intelligence, International CI, CI Technology	Managing the parallel process Intelligence Infrastructure for Multinationals, CI as Learning, Network Analysis

Appendix-C Abstracts of References Cited in the Section "Origin of Competitive Intelligence"

Sr. No.	Author	Year	Title	Abstract
1	William T. Kelly	1965	Marketing Intelligence for Top Management	A number of large companies already have marketing intelligence departments, and others are planning to activate them. What lies behind this recent development in marketing management? What is meant by "marketing intelligence"? How does a company organize for it, and what benefits may be derived from it?
2	William R Fair	1966	The Corporate CIA—A Prediction of Things to Come	In this paper, an argument is given that a recognized new corporate activity will develop whose mission will be to study competitors with a view to finding weaknesses which can be capitalized upon. A likely consequence of this development will be the growth of covert activities of a kind which are at least distasteful, are probably immoral and possibly are illegal. If the development of corporate CIA's takes place there will be a new and fascinating arena for analytic skills, but the practitioner will be faced with some very demanding questions of what shall constitute moral behavior
3	Francis Joseph Aguilar	1967	Scanning the Business Environment	This book first time used the word environment scanning and explained the methods of collecting and use of information by organizations about external events and trends to use in strategic planning.
4	Frank TPearce	1976	Business Intelligence Systems: The Need ,Development and Integration	This paper is a revised outline of presentations to the International Institute of Management Technology, Milan, to the European Association of Market Research, at Copenhagen, and to the University of Lund, Sweden. These presentations were developed from an original paper published in the first issue of this journal in 1971: “Intelligence: A Technology for the 1980s?” That paper suggested the time was ripe for academic development and wider business applications.
5	David B Montgomery & Charles B Weinberg	1979	Toward Strategic Intelligence Systems	There has been a dramatic increase in the use of strategic planning tools in the past decade. Since the quality of strategic planning will be greatly impacted by the quality of the information inputs, increasing attention should be paid to the systematic development of strategic intelligence systems. Examples are drawn from a field research project on these systems.

Sr. No.	Author	Year	Title	Abstract
6	Michel. E. Porter	1980	Competitive Strategy: Techniques of Analyzing Industries and Competitors.	This book has started the new discipline of competitor assessment and transformed the theory and practice of business strategy across the world. Publication of the book considered to be the start of the 2nd phase of competitive intelligence.
7	Niall Ferguson	1998	The World's Banker: The history of the house of Rothschild	This book describes the history of Rothschild banking dynasty. How the Nathan Rothschild made money in London stock exchange by using information about the war of waterloo.
8	John E. Prescott	1999	The Evolution of Competitive Intelligence: Designing a Process for Action	The purpose of a competitive intelligence (CI) program is to develop action-oriented implications for managers. This is an overview of the evolution of competitive intelligence and of the fundamental concepts of CI, including the intelligence production process. Effective CI is critical in helping the proposal management professional create competitive responses to commercial opportunities.
9	Alf H. Walle	1999	From Marketing Research to Competitive Intelligence: Useful Generalization or Loss of Focus?	The history of competitive intelligence (as an organizational function) and its evolution out of marketing research are discussed. Besides a straight historical overview, the transition from marketing research to competitive intelligence is analyzed in order to point to both the potential strengths and weaknesses of having intelligence form an independent "freestanding" discipline. While military analogies can be seductive, organizations should continue to embrace the marketing concept which centers on cooperation and service, not conflict.
10	Sheila Wright & Jonathan L. Calof	2006	The quest for competitive, Business and Marketing Intelligence- A country comparison of current practices	It examined three empirical studies carried out in Canada, the UK and Europe with comparisons drawn on their approach and findings
11	Global Intelligence Alliance	2007a	Market intelligence for the strategy and planning process	The field study conducted by Global Intelligence Alliance across the globe about the practices of information collection and uses.
12	Global Intelligence Alliance	2007b	Market Intelligence in large companies – a global study	The field study conducted by Global Intelligence Alliance across the globe about the practices of information collection and uses by large companies.

Sr. No.	Author	Year	Title	Abstract
13	Liam Fahey	2007	Connecting strategy and competitive intelligence: refocusing intelligence to produce critical strategy inputs	The intelligence function needs to emphasize strategy inputs, alert management as early as possible to the presence and relevance of each input, and, perhaps most importantly of all, engage with members of the management team around the data and reasoning associated with each strategy input
14	Jonathan L. Calof & Sheila Wright	2008	Competitive intelligence A practitioner, academic and inter-disciplinary perspective	The article discusses the origins of the competitive intelligence fields through the examination of the literature relating to the field. The analysis supports the view of competitive intelligence being an activity consisting dominantly of environmental scanning and strategic management literature. New fields of study and activity are rapidly becoming part of the competitive intelligence framework.
15	Olawale Fatoki	2014	The competitive intelligence activity of immigrant entrepreneurs in South Africa	The objective of the study was to investigate empirically the competitive intelligence activity of immigrant-owned businesses in South Africa. Immigrant-owned businesses in South Africa face severe competitive pressures. Competitive intelligence is one of the ways to gain and sustain competitive advantage. Data was collected through the use of a self-administered questionnaire in a survey. Data analysis included descriptive statistics and t-test. The results indicate that immigrant entrepreneurs have a good attitude towards competitive intelligence. However, there is no formalized competitive intelligence gathering process. Recommendations on how to improve the competitive intelligence process are suggested

Appendix-D Abstracts of References Cited in the Section "Definition of Competitive Intelligence"

Sr. No.	Author	Year	Title	Abstract
1	Sumantra Ghoshal and D Eleanor Westney.	1991	Organizing competitor analysis systems	Based on a detailed study of the competitor analysis (CA) systems in three large companies, this paper examines the assessments of the formal CA system by its members and its major users, the uses to which CA is put, and the organizational systems by which the function attempts to improve its contribution and strengthen its role.
2	Elliot Maltz; Ajay K Kohli,	1996	Market Intelligence Dissemination across Functional Boundaries	The study, involved 788 non marketing managers in high-tech equipment manufacturing companies, suggests that both dissemination frequency and formality have nonlinear effects on perceived intelligence quality. In addition, they find evidence that intelligence received through formal channels appears to be used more than that obtained through informal channels. The study also finds that the frequency with which market intelligence is disseminated is related to inter functional distance, joint customer visits, senders' positional power, a receiver's organizational commitment, and trust in a sender. Additionally, they find the formality of the dissemination process is shaped by inter functional distance, receivers' trust in senders, and structural flux. Interestingly, the effects of internal environmental volatility appear to be different from those of external environmental volatility (i.e., market dynamism). For example, structural flux is found to affect dissemination formality, but not frequency, whereas the opposite is true for market dynamism.
5	Larry Kahaner	1998	Competitive Intelligence: How to Gather, Analyze and Use Information to Move your Business to the Top	This book is a practical guide to turning raw information into knowledge. It also explains the process of competitive intelligence and how firms can use it for success. With a wealthof case studies, Author shows How to profile your competitors' executives to unmask their decision-making processes, The line between legal and illegal or unethical activities How to protect your own company against your competitors' intelligence operations.
6	Carl L Saxby, Philip S Nitse & Paul L Dishman	2002	Environmental Scanning and Organizational Culture	This paper examines the connection between environmental scanning for market intelligence, organizational culture and generic strategies. Propositions pertaining to the type of scanning approach utilized by organizations in each quadrantare presented. The paper concludes with planning implications for each quadrant.
7	Phil Britt	2006	The new competitive intelligence: raising the confidence quotient.	The article discusses the views of experts in the field of competitive intelligence regarding the use of competitive intelligence in the business.
8	Paul L Dishman, Jonathan L. Calof	2008	Competitive Intelligence: a Multiphasic Precedent to Marketing Strategy	The paper seeks to explore competitive intelligence as a complex business construct and as a precedent for marketing strategy formulation.The contribution of this paper is two-fold. It reveals many of the “state-of-the-art” levels of practice within current competitive intelligence efforts, and it proposes a model of the intelligence process

Appendix-E Abstracts of References Cited in the Section "Competitive Intelligence in Other Countries"

S. No	Author	Year	Title	Abstract
1	Phani Tej Adidam; Sampada Gajre and ShubhraKejriwal	2009	Cross-cultural Competitive Intelligence Strategies	The practice of CI in various international markets is clearly impacted by the cultural context of gathering and analyzing information. Therefore, one of the key ingredients to successfully conducting CI globally is the ability to understand the local culture and business practices, and then integrate this knowledge within contemporary CI strategies. This study analyses CI practices in the developed markets of Europe and Japan, as well as the emerging markets of China, Russia, South Africa, Latin America, andthe Middle East by using extant literature, primary as well as secondary sources. As cultural factors have a major influence on the collection, analysis and outcome of any CI project, firms doing international business must have a cross culturally aware CI program, which can be established with the help of a five-step process as described in the paper.
2	Sheila Wright;, Elsayed REid and Craig S Fleisher,	2009	Competitive Intelligence in Practice: Empirical Evidence from the UK Retail Banking Sector	This paper presents the findings of an empirical study of the major UK retail banks, the purpose of which was to investigate, not only how they operate their competitive intelligence gathering activities, but the degree to which they "buy-in" to the information sharing attitude. The findings were applied to a best practice model which provides a clear picture of the current status of CI in these establishments and the attitudes of senior managers toward such activity. Recommendations are made on the improvements which would be required for the sector to be considered effective and efficient operators of CI practice.
3	Qingjiu Tao and John E.Prescott,	2000	China: Competitive intelligence practices in an Emerging Market Environment	Little is known about how CI is conducted in emerging market economies, yet it's essential for managers to understand CI in global markets in order to compete and cooperate with their counterparts worldwide. Because CI is developing rapidly in China with its increasing levels of market competition and because of China's importance in world trade, it was

				selected for this study, which consisted of a mail survey to CI practitioners. Among the findings: Chinese organizations are still experimenting with the administration and structure of their CI program. Overall, Chinese CI units are much larger than the staffs in American CI units, but few practitioners devote all of their time to CI activities, and most practitioners have little experience with a broad array of information sources and analytical techniques. The findings also indicate the need for wider adoption of codes of ethics and training. There are opportunities for Western information vendors to leverage their knowledge, skills, and reputation in this area and take part in establishing the foundation for Chinese CI practices.
4	Chunmao Liu and Charles Oppenheim,	2006	Competitive Intelligence and the Development Strategy of Higher Education in Tianjin, China	The paper deals with the strategic development of Higher Education Institutions (HEIs)in Tianjin, China, mainly using the SWOT method of competitive intelligence. It analyses information concerning the HEIs from different aspects and constructs a SWOT matrix in order to develop the recommended strategies for the HEIs. The paper puts forward some specific recommendations for the HEIs in Tianjin to adopt.
5	XinzhouXie and XuehuiJin	2011	The Evolution of Competitive Intelligence in China	Following landmark events during different historic periods, this paper divides the evolution of CI in China into three main stages: CI introduction, CI localization and CI self-conscious marketization. Studies of CI developments are made based on five main aspects of the overall CI industry in China, including their historical skeleton of development, achievements and problems identified. Finally, a forecast for the future development of CI in China is presented.
6	Craig S Fleisher and Sheila Wright,	2009	Examining Differences in Competitive Intelligence Practice: China , Japan and West	This article identifies the state of competitive intelligence in Asia—specifically, two of its most prominent economic powers, China and Japan. Comparisons with Western, mainly U.S. practice, are made, particularly where data and management research from those countries supports this approach. In terms of current practice, CI in Japan is more developed than in China, although China

				continues to devote increasing attention and resources to the area. Decision makers in multinational companies, competing in China or Japan, or with firms that originate there, should be aware of the competitive implications emanating from their utilization of CI
7	N. Ikeya, andK. Ishikawa	2001	The Japanese Intelligence culture	In Japan, the relationship between the government and business has traditionally been strong due to the country's historical and cultural background Until the 1980s, the government, through the Ministry of Economy, Trade, and Culture (METI), directed business to facilitate the country's economic recovery following the devastation of World War II. The government provides CI support through METI, the Japan External Trade Organization (JETRO), and its embassies. The national policy may now change focus. It is anticipated that the roles of METI and its affiliates would also have to change. In light of this, any CI distributed by those national organizations would be somewhat, or greatly, reduced if such restructuring takes place. However, the collaboration between the government and business organizations will continue. As long as Japanese companies maintain their information-intensive culture, there will be support for CI activities regardless of whether it comes from the government or other sources
8	S. Wright; D. Pickton and J. Callow	2002	Competitive intelligence in UK firms: a typology	A pilot research project was undertaken to gain a better understanding of how UK companies conduct competitive intelligence. From this pilot, a tentative typology of companies was developed to reflect four attributes of a competitive intelligence activity: attitude, gathering, use, and location. Further research was subsequently undertaken to corroborate the findings of the pilot study, test the appropriateness of the typology and further develop the classification definitions. The research has resulted in a typology that illustrates a continuum of behaviour on the four strands of investigation. From this, an understanding of CI best practice can be deduced.
9	Jamie RSmith	2012	Competitive Intelligence Behaviour and Attitude Antecedents	This thesis examines the Competitive Intelligence behaviour and attitude antecedents of SME decision-makers in a funded environment in France. As a

			in Franch Small and Medium Sized Enterprises in a Funded Intervention Environment	leader in CI national policy programmes. This two stage sequential mixed method study within the pragmatic paradigm evaluates Competitive Intelligence as a public policy to enhance SME sustainable competitiveness. Semi-structured interviews were undertaken with the directors of 15 Competitive Intelligence programmes at French Chambers of Commerce and Industry. Guided by the structure and Theory of Planned Behaviour, the findings from this qualitative phase were then used to develop a research instrument to test research questions that relate to behaviour, attitudes, background factors, choice of CI advisor, terminology, and perceived constraints. In this second stage, data was obtained via questionnaire from 176 SME decision makers in the Rhône-Alpes and Ile de France regions, for the two sectors of Automobile and Telecoms. The findings show that tangible results have been achieved despite resistance from small businesses in regard to their Competitive Intelligence practices. The thesis uncovers innovative practices to change SME awareness, attitude, and practices of Competitive Intelligence. Evidence of significant relationships between terminology usage, advisor choice, and SME decision-maker attitudes towards CI practices provides insight for future behaviour intervention programmes and future research.
10	Smith, Jamie R; Wright, Sheila; Pickton, David	2011	Competitive Intelligence Programmes for SMEs in France: Evidence of Changing Attitude	This paper reports on an empirical study of the French Chambers of Commerce and Industry Competitive Intelligence (CI) programmes. Semi-structured interviews were undertaken with the directors of 15 CI programmes from four regions of France. The research questions focused on definitional issues, CI programme content, Small and Medium-sized Enterprise (SME) CI practices and innovative methods used to change attitudes towards CI. The interview transcriptions were sorted, analysed and classified in N Vivo software. The findings show that tangible results have been achieved despite resistance from small businesses in regard to their Competitive Intelligence practices. The paper also identifies the public and private sector entities which were named as sources of advice for small businesses for

				their Competitive Intelligence needs. The SMEs were also classified by the application of a CI attitude typology. The insights elicited can help future initiatives by public/private partnerships in both CI programmed sign and implementation.
11	Tej Phani Adidam; Madhumita Banerjeeand Paurav Shukla,	2012	Competitive Intelligence and firm's Performance in Emerging Markets: an Exploratory Study in India	This paper aims to explore the impact of This paper aims to explore the impact of competitive intelligence (CI) practices on the firm's performance in the emerging market context of India. The paper seeks to answer the following questions: do CI activities have an impact on the market performance of Indian firms? If so, what are the macro and micro environmental drivers of CI for Indian firms? How are CI activities organized within Indian firms? How is the usage and dissemination of CI taking place within Indian firms? The study used a stratified sample developed from a variety of mailing lists focusing on Indian firms. The study employed a cross-sectional, survey-based methodology. The study identifies two key aspects: Indian firms that exhibit higher levels of CI activities indeed achieve better financial performance results; and the current level of CI activities in Indian firms is at a moderate level, thereby suggesting an opportunity for using and implementing more sophisticated CI techniques.

Appendix-F Comparison of Japan and US Competitive Intelligence Practices

	Japan	**United State of America**
Philosophy	Continuous improvement	Improve when needed
Value of CI	The expense in collecting information is more than justified by its value	Look for cost/benefit and a positive return on CI investments
Information Sharing	Share information within and outside their *keiretsus* (Informal Business Group), have always inherently practiced knowledge management	Less likely to share, although firms are moving away from information hoarding and to knowledge management
Government Role	Actively supports Japanese organizations by providing CI to them and assisting their CI efforts in Japan and overseas	Little direct support is given by the government. Intelligence needs commonly framed in noncommercial terms
Workforce Participation	Far more successful than their counterparts in the West at involving their entire workforces, including all employees and managers	Have generally centralized CI functions and assigned CI responsibilities to specialized employees, rely more heavily on the information technology
Data Collection	Japanese voraciously collect data and information, although they generally acknowledge a lack of analysis and application of analytical tools	Collect less information in general, but apply a more sophisticated range and quantity of analytical tools to collected data
CI and Strategy	Generally more successful than Western firms in integrating and linking CI and strategy development activities	Companies have continuously reported difficulties in fully integrating CI and strategy development processes and systems

Appendix-G Competitive Intelligence Process Model Constructs and Statements

Factor 1 Planning and Focus	• We are concerned with the plans and intentions of our key competitors, alliances, suppliers, distributors and other stakeholders (S18) • Our employees report information about our competitors on foreign markets to the right manager for decision-making (S23) • In our company, we meet with executives to identify their intelligence needs (S27) • We train/prepare our employees before they go on trade shows, exhibitions, conventions etc. about what information they should look for (S33) • Results from exit interviews/job interviews are used in our intelligence system (S34)
Factor 2 Collection	• Key decision-makers are interviewed to verify that the intelligence products produced for them to satisfy their needs (S31) • All information is checked for accuracy and validity by at least one other source (S32) • Our employees attend intelligence seminars/training programmes (S36) • We evaluate the reliability of our sources of information (e.g. persons, publications, internet, etc.) (S37) • We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have, publications, etc.) (S38)
Factor 3 Analysis and Communication	• Our company has a variety of methods for collecting information (e.g. tradeshows web sites, industry reports, etc.) (S8) • Our intelligence findings are widely distributed within the company (S9) • We have a variety of ways to present intelligence findings (e.g. briefings, newsletters, competitor profiles, industry reports, etc.) (S13) • Our company produces intelligence reports and assessments on emerging technologies that we believe are most important (S21) • Our company analyses our competitors' plans and strategies to predict and anticipate their actions (S24) • Our company uses basic competitor analytical models (e.g. SWOT and gap analysis) (S25) • Our company develops profiles on emerging technologies to better understand their characteristics, potential applications and market advantages (S29)

Appendix-H Competitive Intelligence Context Model Constructs and Statements

Factor1 Awareness	• Our company recognizes CI as a necessary activity for business (S1) • Our management understands what competitive intelligence is (S2) • Senior management supports intelligence activities (S4) • Competitive intelligence can be used to create a competitive advantage (S5)
Factor 2 Internal Information	• We maintain a comprehensive map or inventory of internal information and knowledge (S10) • Our corporate culture encourages information sharing (S15) • We report intelligence findings to the CEO or senior manager (S19) • In our company, the company's intelligence needs are communicated to employees (S26) • Senior management use CI results in their strategic planning and decision-making (S28) • We evaluate our competitive intelligence findings. (S35)
Factor 3 Formal Infrastructure	• There is a central co-ordination point for receiving competitive intelligence information (S11) • We have a formal knowledge management system (S14) • Our company maintains a central record of reliable sources of information (S16) • We have a long-term competitive intelligence plan (S17) • Competitive intelligence is a formal activity in our company (S20)
Factor 4 Employee Involvement	• Most employees understand what competitive intelligence is (S3) • Our company has incentives to encourage employees to report their competitive observations and information (S6) • We make competitive intelligence training (e.g. collection and analysis techniques) available to all our employees. (S12)

Appendix-I Questionnaire

Organization Name Date | D | D | M | M | Y | Y |

Dear Sir/Madam, I am a PhD Research Scholar at the Central University of Haryana. I am working on Competitive Intelligence relationship with business performance in Indian Retail Industry. In this context, I request you to please read the following questions carefully and answer them. The answers you give will be held confidential and used only for academic purposes in a collective analysis. I will be very thankful for your precious time.

Note: What is Competitive Intelligence (CI)?

Competitive Intelligence is a process of monitoring the competitive environment with a goal to provide actionable intelligence that will provide a competitive edge to the organization. The questions are related to the way your organization conduct these activities.

PART –A

Q1: In which sector of Retail Industry are you operating?

Q2: Kindly mark the total number of employees in your company?

1) Less than 10 2) 10 to 50 3) 51 to 100 4) More than 100.

Q3: Kindly tick your designation in the company?

1) Owner/Board Chairman

2) CEO/Director

3) Head of Marketing/Strategic division

4) Other Please mention……..

Q4: Kindly tick your Gender?

1) Male 2) Female

Q5: Please tick your Educational Qualification?

1) Undergraduate 2) Post Graduate 3) Other Please mention …….

Q6: How long have you been working or Running this Company?

1) Less than One Year 2) 1 year to less than 3 Years

3) 3 years to less than 5 years 4) 5 year or more than 5 Years

Q7: Do your company has a formal Competitive Intelligence Department?

1) Yes 2) No

Q8: If yes, how long it has been operational?

1) Less than 1 year 2) 1 year to less than 3 years

3) 3 years to less than 5 years 4) More than 5 years

Q9: Kindly mark the department which deals with the Competitive Intelligence in your Organization.

1) Corporate planning 2) Information Technology

3) Marketing/market research 4) Research & Development

5) Sales 6) Separate dedicated department

7) Other please specify …….

Q10. A number of employee working full times in Competitive Intelligence Department.

1) 1 to 5 2) 6 to 10 3)11 to 15 4) More than 15

PART B

Now I would like to understand a few things regarding the process of competitive Intelligence in your Organization. You are requested to read the statements carefully and mark your response at respective places:

SNo	Statements					
1	Our company recognize competitive Intelligence as a necessary activity for business	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2	Our management understands what competitive Intelligence is.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3	Senior management support intelligence activities	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4	Competitive Intelligence can be used to create competitive advantage	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5	Our company has the incentive to encourage employees to report their intelligence observation and information	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6	We have a convenient way for employees to report their observation and Information	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7	Our company has a variety of methods for collecting information.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
8	Our intelligence activities are widely distributed within the company	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9	We maintain a comprehensive map or Inventory of Internal Information and knowledge.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10	There is a central co-ordination point for receiving competitive Intelligence Information.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11	We make competitive Intelligence (e.g. collection and analysis technique) available to our employees.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12	We have a variety of ways to present intelligence findings.(e.g Briefings, newsletters, competitors profiles, Industry reports etc)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13	We have formal knowledge / Information management system	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
14	Our corporate culture encourages information sharing	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15	Our company maintains a central record of reliable sources of Information	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16	We have a long term Competitive Intelligence Plan	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
17	We are concerned about the plans and Intentions of our key competitors, alliance suppliers, distributors and other stakeholders.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18	We report our intelligence findings to the CEO or Senior Managers.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19	Competitive Intelligence is a permanent activity in our company	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

PART C

Now as research I would like to understand a few things regarding the process of competitive Intelligence in your Organization. Please indicate to what extent you implement the following with regard to your business on a scale from 1 to 5, where 1 equals never and 5 equals always

S.No	Statement	1	2	3	4	5
20	Our Company produces Intelligence reports and assessments on emerging technologies that we believe are most important	Never	Seldom	Sometimes	Often	Always
21	Our Company produces assessments that address several possible outcomes of our competitor's actions that might be threats or opportunities for our company	Never	Seldom	Sometimes	Often	Always
22	Our employees report information about our competitors in foreign markets to the right managers for decision making purposes.	Never	Seldom	Sometimes	Often	Always
23	Our company analyses our competitor's plans and strategies to predict and anticipate their action	Never	Seldom	Sometimes	Often	Always
24	Our Company uses basic competitor analytical models (e.g SWOT and gap analysis)	Never	Seldom	Sometimes	Often	Always
25	In our company, the company's intelligence needs are communicated to employees	Never	Seldom	Sometimes	Often	Always
26	In our company, we meet with executives to identify their intelligence requirements.	Never	Seldom	Sometimes	Often	Always
27	Senior managers use CI results in their strategic planning and decision making.	Never	Seldom	Sometimes	Often	Always
28	Our Company develops profiles on emerging technologies to better understand their characteristics, potential applications and market advantages	Never	Seldom	Sometimes	Often	Always
29	We use information management tools (e.g. data mining, data warehousing, OLAP or "business intelligence" software) to understand our customers	Never	Seldom	Sometimes	Often	Always
30	Key decision-makers are surveyed/interviewed to verify that the intelligence products produced for them satisfy their needs.	Never	Seldom	Sometimes	Often	Always
31	All information is checked for accuracy and validated by at least one other source	Never	Seldom	Sometimes	Often	Always
32	We train/prepare our employees before they go to trade shows, exhibitions, conventions etc. about what information they should look for.	Never	Seldom	Sometimes	Often	Always
33	Results from exit interviews/Job interviews are used in our intelligence system	Never	Seldom	Sometimes	Often	Always
34	We evaluate our competitive intelligence finding.	Never	Seldom	Sometimes	Often	Always
35	Our employees attend intelligence seminars/training programmes.	Never	Seldom	Sometimes	Often	Always
36	We evaluate the reliability of our source of information (e.g. persons, publications, Internet etc.)	Never	Seldom	Sometimes	Often	Always
37	We conduct an internal knowledge audit (e.g. identify and catalogue what people know, what reports they have publication etc.)	Never	Seldom	Sometimes	Often	Always

Section D: Strategic Use of CI

D1. How important to your organisation is the use of CI for the following purposes/roles?

Purpose/Role	Highly Undesirable	Desirable	Neutral	Desirable	Highly Desirable
(1) Supporting strategic decision making	1	2	3	4	5
(2) Identifying early warning for threats	1	2	3	4	5
(3) Identifying blind spots and opportunities	1	2	3	4	5
(4) Performing industrial benchmarking	1	2	3	4	5
(5) Supporting strategic planning and implementation	1	2	3	4	5
(6) Supporting competitor assessment and tracking	1	2	3	4	5
(7) Performing counterintelligence	1	2	3	4	5

D2. How frequently do you use CI in the following strategic decision making activities?

Strategic Decision	Never	Seldom	Sometimes	Often	Always
(1) Merger & acquisition	1	2	3	4	5
(2) Strategic alliance	1	2	3	4	5
(3) Market entry/exit	1	2	3	4	5
(4) Vertical integration	1	2	3	4	5
(5) New product/service development	1	2	3	4	5
(6) Capacity expansion	1	2	3	4	5
(7) Diversification	1	2	3	4	5
(8) Divestment	1	2	3	4	5
(9) Technology adoption	1	2	3	4	5
(10) Global	1	2	3	4	5
(11) Organisational	1	2	3	4	5

Section E: Business Performance

Now I would like to understand a few things regarding your perception about the performance of your Retail Business. How the introduction of Competitive Intelligence impact the business performance of your organization as compared to previous performance (Prior to the introduction of Competitive Intelligence).Please indicate on a scale from 1 to 5, where 1 equals Much Worse and 5 equals Much Better.

	Performance Indicator	**Much Worse**	**Worse**	**Same**	**Better**	**Much Better**
1	Sales per Square Foot	1	2	3	4	5
2	Total Sales	1	2	3	4	5
3	Return on Investment	1	2	3	4	5
4	Return on Assets	1	2	3	4	5
5	Market Share	1	2	3	4	5
6	Gross Margin	1	2	3	4	5
7	Revenue Growth	1	2	3	4	5
8	Sales Per Employee	1	2	3	4	5

Thank you deeply for your involvement in our study and for sparing a part of your precious time.

Appendix-J Codebook

Question Number & Question	SPSS Variable Name	CODE
Question 1, In which sector of Retail Industry are you operating	Sector	Open Ended
Question 2;Kindly mark the total number of employees in your company.	Total Employee	1= Less than 10 2= 10 -50 3= 51-100 4= More than 100
Question 3: Kindly tick your designation in the company.	Designation	1=Owner /Board Chairman 2= CEO/Director 3=Head of Marketing/Strategic Division 4= Other
Question 4:- Kindly tick your gender.	Gender	1= Male 2= Female
Question 5:- Please tick your Educational Qualification.	Qualification	1= Undergraduate 2= Post Graduate 3=Other
Question 6, How long have you been working or Running this Company?	Duration_company	1= Less than one year 2=1 year to less than 3 year 3= 3 years to less than 5 year 4= 5 years or more than 5 years.
Question7, Does your company have a formal Competitive Intelligence Department?	CI_Departemnt	1= Yes, 2=NO
Question 8, If Yes how long it has been operational?	Duration_CI	1= Less than 1 year 2= 1 year to less than 3 year 3= year to less than 5 year 4 =5 year or more than 5 years.
Question 9 Kindly mark the department which deals with the Competitive Intelligence in your Organization.	Name of CI Department	1= Corporate Planning 2= InformationTechnology 3= Marketing/Market Research 4= Research&Development 5=Sales 6=Separate dedicated department 7= Other

Question Number & Question	SPSS Variable Name	CODE
Question 10, Number of employees working full time in Competitive Intelligence Department.	Employee_CI_Department	1= 1 to 5 Employees 2=6 to 10 Employees 3=11 to 15 Employees 4= More than 15 Employee
PART B		
Statement 1 to Statement 19	S1 –S19	1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree
PART C		
Statement 20 to Statement 37	S20-S37	1= Never 2= Seldom 3= Often 4= Sometimes 5= Always
PART D Strategic role of Competitive Intelligence		
Question D1, How important to your organisation is the use of CI for the following purposes/roles	D1_S1 to D1_S7	1= Very Unimportant 2= Unimportant 3= Neutral 4= Important 5= Very Important
Question D2, How frequently do you use CI in the following strategic decision making activities?	D2_S1 to D2_S11	1= Never 2= Seldom 3= Often 4= Sometimes 5= Always
PART E Business Performance		
Question E, How the introduction of competitive intelligence impacts the business performance of your organisation as compared to previous performance.	BP1 to BP8	1= Much Worse 2= Worse 3= Same 4= Better 5= Much Better

Appendix-K Name and Retail Sector of Respondent Firms

	Company	Retail Sector
1	Louis Philippe	Apparel
2	Planet Fashion	Apparel
3	Lacoste	Apparel
4	Clark	Apparel
5	Liberty	Footwear
6	Titan	Watches
7	Arrow (Arvind Life style)	Apparel
8	Allan Solly (Aditya Birla)	Apparel
9	Cantabil International	Apparel
10	Peter England	Apparel
11	Raymond	Apparel
12	Black Berry	Apparel
13	Wills Life style	Apparel
14	Numero Uno	Apparel
15	Flying machine (Arvind life style)	Apparel
16	Mufti	Apparel
17	Shoetree(SSIPL)	Footwear
18	Wildcraft	Apparel
19	Lotto(SLPL)	Apparel
20	Aurelia (TCNS)	Apparel
21	Lee(VF)	Apparel
22	Kalpana	Apparel
23	Ashok's	Apparel
24	Color Plus(Raymond)	Apparel
25	Jainsons	Apparel
26	Indian terrain Fashion Ltd	Apparel
27	Givo	Apparel
28	Zeven	Sports
29	50Shades	Apparel
30	99Sublimation	Gift Retail
31	Xotik	Packaged drink
32	Roman Island	Apparel
33	Sanjivani	Retail
34	Gokaldas	Apparel

	Company	Retail Sector
35	Jiffy Lush	Bags and Accessories
36	Beth	Modular Living Products
37	Kent	Electronics
38	Sri Sri Tattva	FMCG
39	Doubleu Bags	Fashion
40	Wayne Wright	Footwear
41	Baidyanath Ayurved	Retail
42	Mother Care	Kids Retail
43	Pure	Home Interior Products
44	Indian Kitchen	Food & Beverages
45	Euro Foods	Food & Beverage
46	Roxx World	Kitchenware Retail
47	Ayesha Fashion	Fashion
48	Divniti	Gift Retail
49	Gitanjali	Jewellery
50	Global Exchange	Apparel
51	Humpty Dumpty	Kids Retail
52	Leather World	Fashion
53	Manbhavan	Food & Beverages
54	Marwah	Apparel
55	MotiMahal	Food & Beverages
56	T.T Garments	Apparel
57	Royal Creatyions	Apparel/Jewellery
58	Amante	Lingerie
59	Vincenzio Robertina	Footwear
60	Relience Digital	Electronics
61	R Trends	Apparel
62	Satyapaul	Apparel
63	Meena Bazar	Apparel
64	Mohanlal Sons	Apparel
65	Kala Niketan	Apparel
66	Global Desi	Apparel
67	AND	Apparel
68	Studio firang	Apparel
69	Rangriti	Apparel

	Company	Retail Sector
70	Medieval India	Watches
71	Being Human	Apparel
72	Da Milano	Accessories
73	Bombay Selections	Apparel
74	OSIM	Lifestyle
75	Andaz	Apparel
76	Anokhi	Apparel
77	Gipsy	Apparel
78	Biba	Apparel
79	Big Bazar	Super Market
80	Biotique	Ayurvedic Beauty Product
81	Cover Story	Apparel
82	Creyate	Apparel
83	Croma	Electronics
84	Da Milano	Footwear
85	Newu	Ayurvedic Beauty Product
86	Pantaloons	Apparel
87	Fab India	Apparel
88	Jockey (Page Industry)	Apparel
89	R Trends	Apparel
90	Reliance Digital	Electronics
91	Shoppers Stop	Electronics
92	Spykar	Apparel
93	Titan Eye +	Eye care and Eyewear
94	DLF Brands	Departmental Store
95	Times Vacanza	Travel & Tourism
96	ToonMart	Kids Retail
97	Vadilal	Food & Beverages
98	Voyalla Fashion	Fashion
99	Panwaadi	Food & Beverages
100	Manbhavan	Food & Beverages
101	Barista	Food & Beverages
102	Wood Land	Footwear
103	24seven	Grocery Store
104	Vanson Shoes	Footwear

	Company	Retail Sector
105	Venus Steps	Footwear
106	Baluja	Footwear
107	BGS	Fashion
108	Mohan Lal Sons	Apparel
109	Michel kors	Fashion
110	Madame	Apparel
111	Anita Dongre	Apparel
112	Loom Tree	Apparel
113	Armani Exchange	Apparel
114	Speedo (page industries)	Apparel
115	Dabur newu	Lifestyle
116	Neeru's	Apparel
117	Bata India	Footwear
118	Relaxo Footwear	Footwear
119	Baluja Shoe Co	Footwear
120	Suvarn Jewels	Jewellery
121	BGS Fashion	Apparel
122	Store99	Departmental Store
123	Kaaryah Lifestyle Solutions Pvt. Ltd.	Apparel
124	RG lifestyle	Apparel
125	Crocs	Footwear
126	Hindware Home Retail Pvt Ltd	Bathroom accessories
127	Mohan Clothing	Apparel
128	Quest Retail Private Ltd	Lifestyle
129	Ritika Pvt Ltd	Apparel
130	More	Grocery Store
131	Easy Day	Grocery Store
132	Ritu Wears	Apparel
133	Ebony Retail	Fashion
134	Free Culture Apparels Pvt Ltd	Apparel
135	Chunmun Stores Pvt. Ltd.	Footwear
136	Diwan Saheb	Apparel
137	Perfection House	Apparel
138	Nalini	Apparel
139	AMPM	Apparel

	Company	Retail Sector
140	Callino India Pvt. Ltd	Apparel
141	W	Apparel
142	Sahara Q Shop	Grocery Store
143	Croma	Electronics
144	Zodiac	Apparel
145	Heritage	Apparel
146	Siyaram	Apparel
147	Kapoor watch (Rolex)	Fashion
148	Bose India	Electronics
149	The Mobile Store	Electronics
150	Lakshita	Apparel
151	Planet Fashion	Apparel
152	Westside	Departmental store
153	Fab India	Apparel
154	Pluss	Apparel
155	Kapsons (UCB)	Apparel
156	Ritika Bhasin	Apparel
157	Star Mobitel	Electronics
158	Roush	Footwear
159	Metro Shoes	Footwear
160	Zohra emporium	Apparel
161	iworld	Electronics
162	Panna Sarees	Apparel
163	Andaz	Apparel
164	SSIPL Retail Ltd	Apparel
165	SNG Fashions Pvt Ltd	Apparel
166	Twenty Four Seven Retail Stores Pvt.Ltd	Grocery Store
167	Woodland (Aero Club)	Footwear
168	Stroika	Furniture Retail

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Competitive Intelligence Research: An Academic Literature Review and Classification

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The purpose of this paper is to review the academic literature on competitive intelligence and classify the literature into mutually exclusive categories by using the method of content analysis. Total 120 research papers published between Years 2000 to 2014 were collected from following online databases Emerald Insight, ABI/Inform (Proquest), Business Source Complete (EBSCO), JSTOR, Taylor & Francis. Research has classified the academic literature for competitive intelligence in to the following six broad areas Defining & Exploring the Construct of Competitive Intelligence, Significance of Competitive Intelligence, Implementation of Competitive Intelligence, Relation of Competitive Intelligence with other Constructs, Competitive Intelligence in SMEs, Tools Used for Competitive Intelligence and Competitive Intelligence in Different Countries. Out of these categories two categories Relation of Competitive Intelligence with other Constructs and Competitive Intelligence in Different Countries have more than 50 % of total paper under review. It has been concluded that competitive intelligence has been studied around the globe in recent past but with no standardization of measurement and methodology.

Keywords— *Competitive Intelligence, Literature Review, Literature Classification*

INTRODUCTION

Competitive Intelligence is a continuous process of environmental scanning. Nearly 30 years ago Porter reported that whilst companies were carrying out this activity informally. He advocated the need for a structured intelligence process at all times in order to continuously and systematically identify business opportunities and threats (Porter, 1980). The Objectives of competitive intelligence includes anticipation of changes in the market, Identification of new or potential competitors, the study of the successes and failures of competitors, the study of new technologies, products, and processes, the monitoring of changes in the political, legislative, and regulatory areas that affect a business, start a new business, it gives a clear view of an enterprise's own activities. (Bayandina & Kretovb, 2012)

The objective of this paper is to review the academic litreture in the area of Competitive Intelligence and classify them in to mutually excusive categories and providing a comprehensive bibliography.

RESEARCH METHDOLOGY

This research paper present a review of Competitive Intelligence research published in academic research journals between 2000 to 2014. The literature is collected from following five online data base resources.

1. Emerald Insight
2. ABI/Inform (Proquest)
3. Business Source Complete (EBSCO)
4. JSTOR
5. Taylor & Francis

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The literature search was based on keyword descriptor "Competitive Intelligence" for the selected databases and for the period ranging from year 2000 to 2014. The databases were queried for the keywords in the titlle, abstract and the keyword list. The full text of each research paper was further reviewed to eliminate those that were not actually related to Competitive Intelligence. After analysing by 2 researcher independently and discussion the review finaly yield 120 research papers related to competitive intelligence sourced from 90 Journals. The full text of each paper was carefully studied by researcher to identify the appropriate categorization. This process is repeated

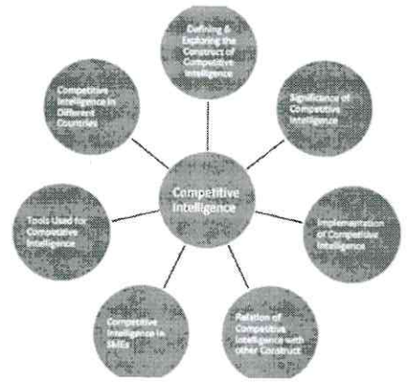

Fig. 1: Developed by Researcher

Table 1: Source Prepared by Researcher

Category	*Bibliography*
Defining and Exploring the construct Competitive Intelligence	(Rouach & Santi 2001; Jaworski et al. 2002; Vedder & Guynes 2002; Marson 2006; Calof & Wright 2008; Dishman & Calof 2008; Saayman et al. 2008; Maguire et al. 2009; Gainor & Bouthillier 2012; Ganzert et al. 2012; García et al. 2013; Iyamu & Moloi 2013; Jamil 2013; PETRIŞOR & STRĂIN 2013; Gaspareniene et al. 2013)(Gainor & Bouthillier 2014)
Significance of Competitive Intelligence in Business	(Barrett 2010; Bourret 2012; Bulley et al. 2014; Gaidelys & Dailydka 2013; Gaidelys & Valodkiene 2011; Mamawi 2012; Staškevičiūtė et al. 2006; Wang & Luis 2013)
Implementation of Competitive Intelligence	(Trim 2001; Mason 2006; Štefániková & Masárová 2014; Rittenburg et al. 2007; Bartes 2011; Colakoglu[a] 2011; Salvador & Casanova 2012; Powell & Bradford 2000; Saba et al. 2014; Cekuls 2015)
Relation of Competitive Intelligence with other Construct	(Adidam et al. 2009; Agnihotri & Rapp 2011; Ahearne et al. 2013b; Breese-vitelli & Kohun 2013; Ahearne et al. 2013a; Calof & Smith 2010; CĂPĂŢÎNA & VANDERLINDEN 2012; Das 2010; Erickson & Rothberg 2012; Fahey 2007; Ghannay & Zeineb 2012; Gilad 2011; Guimaraes 2011; Hughes et al. 2013; John et al. 2014; Liu & Wang 2008; Luu 2014; MILLER & MILLER 2012; Nemutanzhela & Iyamu 2011; Qiu 2008; Rapp et al. 2014; Richardson & Luchsinger 2007; Slater & Narver 2000; Trim & Lee 2008; Trong Tuan 2013; Tuan 2013b; Tuan 2013a; Ursăcescu & Cioc 2012; Zangoueinezhad & Moshabaki 2009)
Competitive Intelligence in SMEs	(Bayandin & Kretov 2013; Guimaraes 2000; Islam et al. 2011; Tarraf & Molz 2006; Wright et al. 2013; Wright et al. 2012)
Tools Used for Competitive Intelligence	(Teo & Choo 2001; Shing & Spence 2002; Ong et al. 2002; Boncella 2003; Bose 2008; Michaeli, Rainer ; Simon 2008; Fleisher Craig 2008; Shih et al. 2010; Huggins & Clifton 2010; Xu et al. 2011; Vaughan & You 2011; Valeriu 2011; Gay 2012; Gaidelys & Meidute 2012; Rothberg & Erickson 2012; He et al. 2013; Li & Li 2013; Ramírez et al. 2013)
Competitive Intelligence in Different Countries	(Wright et al. 2002; Viviers et al. 2002; Toit 2003; Pelsmacker et al. 2005; Priporas et al. 2005; Viviers et al. 2005; Liu & Oppenheim 2006; Wright & Calof 2006; Fleisher & Wright 2009; Heppes & Toit 2009; Wright et al. 2009; Strauss & Toit 2010; Franco et al. 2011; Mahdy & Mahnoosh 2011; Nasri 2011; Pellissier & Kruger 2011; Adidam et al. 2012; Gatsoris 2012; Capatina et al. 2013; Fatti & Toit 2013; Momeni & Mehrafzoon 2013; Salvetat & Laarraf 2013; Toit 2013; Yap et al. 2013; Agboh 2014; Campos et al. 2014; Hamplová & Provazníková 2014; Mucan & Özeltürkay 2014; Sewdass & Toit 2014; Tarek & Sami 2014)

by another independent researcher and after discussion the researchers classified the litreture according to the model shown in fig.1.

Results

This section presents the result of Classification Exercise

Table 1 shows a comprehensive bibliography of research papers corresponding to eight predefined categories.

Defining and Exploring the Construct Competitive Intelligence

In almost all the articles it was agreed that competitive intelligence is not a new concept. Its benefits were identified long back. Researcher refer example from House of Fugger (Rouach & Santi 2001), Work of Sun Tzu and Nathan Rothschild's fortune in London stock exchange (Calof & Wright 2008). Competitive Intelligence is considered as an initial phase of marketing strategy. (Jaworski et al. 2002), (Dishman & Calof 2008). In the literature it has been found that Competitive Intelligence is both a product and a process (Gainor & Bouthillier 2012). It is a continuous and strategy demand-driven process that has the goal to provide decision support specifically for strategic levels in any organization(Jamil 2013). Due to the inconsistent conceptualization of the Competitive Intelligence field it has many issues of measurement (Gainor & Bouthillier 2014), (Gainor & Bouthillier 2012). Competitive Intelligence has the following characteristics: it is an art of collecting, processing and storing information to be made available to people at all levels of the firm to help shape its future and protect it against current competitive threat: it should be legal and respect codes of ethics: it involves a transfer of knowledge from the environment to the organization within established rules (Rouach & Santi 2001).

In this category 16 research papers have been classified. It contributed to 11% of the total paper under review. Table 2 shows the classification of papers according to the journals.

Competitive Intelligence in Different Countries

Competitive Intelligence has been studied in different countries across the globe. In UK Competitive Intelligence considered to be the tool of large companies which required a huge amount of investment(Wright et al. 2002). In Greece the focus of competitive intelligence is on short-term customer satisfaction not on long term competitiveness (Priporas et al. 2005). In South Africa considerable level of awareness and culture

Table 2: Source- Prepared by Researcher

Journal Title	*Number of Article*
African Journal of Business Management	1
Aslib Proceedings	2
European Journal of Marketing	2
European Management Journal	1
Information Systems Management	1
International Journal of Intelligence and Counter Intelligence	1
Journal of Market Focused Management	1
Journal of Medical Marketing	1
Knowledge Management Research & Practice	1
Procedia Technology	1
Proceedings of the European Conference on Information Management & Evaluation	1
Strategic Change	1
USV Annals of Economics & Public Administration	1
journal of Small Business and Entrepreneurship	1
Total	16

of competitive intelligence but it is far behind the developed countries in terms of education, training and consulting service (Viviers et al. 2005) (Viviers et al. 2002). In comparison of South Africa and Belgian exporters South African exporters have more organised competitive intelligence active then Belgian exporters (Pelsmacker et al. 2005). In South Africa majority of manufacturing enterprise use informal intelligence network mainly focus on competitors (Toit 2003). In retail banks of South Africa competitive intelligence found to be at mid maturity level (Heppes & Toit 2009). South Africa lacks skilled people to drive competitive intelligence process towards world class(Strauss & Toit 2010). South Africa as a country continues to rank low in the world of Competitiveness (Sewdass & Toit 2014). In Tunisia companies understand the importance of Competitive Intelligence but they are focusing more on internal source of information and not investing in formal structure of competitive intelligence process (Nasri 2011) (Tarek & Sami 2014). In the case of high technology European firms it was found that the role of top management is essential but middle level management participate relies on information expert for competitive intelligence practice in organization (Salvetat & Laarraf 2013).

In a research on Portuguese firm it was found that the probability of adopting competitive intelligence by firms depends upon two factors first orientation of business policy and strategy, second public policies that improve the business context in the perspective of competitive intelligence (Franco et al. 2011).

In industry wise comparison of Competitive Intelligence practices in Tehran researcher found a significant difference between competitive intelligence practices across industries (Mahdy & Mahnoosh 2011)

In exploratory study of Indian firms it was found that companies which exhibit higher level of competitive intelligence activities achieve a better financial results and Competitive Intelligence in Indian firms is at moderate level (Adidam et al. 2012).

Greek Furniture retailing Industry managers believe the importance of monitoring the competition. They monitor competition with traditional and modern marketing tools and price is the most sought information about the competitors (Gatsoris 2012).

Table 3: Source- Prepared by Researcher

Journal Title	*Number of Article*
Aslib Proceedings	2
Business Management Dynamics	1
Business Process Management Journal	1
EuroMed Journal of Business	1
European Business Review	1
European Journal of Marketing	1
Global Conference on Business and Finance Proceedings	1
Human Systems Management	1
Information Development	1
International Business research	1
International Journal of Information Management	2
International Journal of Social Economics	1
Journal of Business and Industrial Marketing	1
Journal of Enterprise Information Management	1
Journal of Intelligence Studies in Business	3
Journal of Marketing Management	1
Knowledge Horizons - Economics	1
Marketing Intelligence & Planning	3
Procedia - Social and Behavioral Sciences	2
South African Journal of Business Management	1
Studies in Business and Economics	1
The journal of Information and Knowledge Management Systems	1
Thunderbird International Business Review	1
Total	30

In this category few papers focused on the country wise comparison of Competitive Intelligence studies and practices. A comparison of Canada, UK and Europeans competitive intelligence studies it was found that a generalization is not possible because of significant difference in study designs (Wright & Calof 2006). In a comparison of China, Japan and US competitive intelligence practice it was found that competitive intelligence capability in Japan much developed than china but it is still viewed as a less sophisticated than US(Fleisher & Wright 2009).

In this category 30 research papers have been classified. It contributed almost 21% of the total paper under review. Table 3 shows the classification of papers according to the journals.

Competitive Intelligence in SMEs

Small Organizations play a very important role in economic development and employment generation in any economy. In the research of competitive intelligence few researchers have studied competitive intelligence in SMEs. Research provides strong evidence in SMEs regarding the importance of effective Competitive Intelligence and effective Information system to successfully implementing the change in their business process, products, organization structure, organization culture etc. (Guimaraes 2000). Turkish SMEs are only concerned about short term productivity and not focused on long term competitiveness (Wright et al. 2013). A lot of support and development needed in case Turkish SMEs ((Wright et al. 2012). Cost inhibits competitive intelligence system implementation in SMEs (Islam et al. 2011).

Table 4: Source Prepare by Researcher

Journal Title	*Number of Article*
Journal of Business & Economics	1
Journal of Intelligence Studies in Business	1
Journal of Strategic Marketing	1
Logistics Information Management	1
SAM Advanced Management Journal	1
Scientific and Technical Information Processing	1
Total	6

In this category 6 research papers have been classified. It contributed almost 4% of the total paper under review. Table 4 shows the classification of papers according to the journals.

Competitive Intelligence Tools

Lot of tools have been identified and studied for competitive intelligence in the literature. Internet is being used more frequently in competitive intelligence process (Boncella 2003). It has been found that usage of internet have a positive impact on quality of competitive intelligence information (Teo & Choo 2001). An integrated web based application FOCI (flexible organizer for competitive intelligence) provides a integrated platform for gathering, organising, tracking and sharing of information collected from web (Ong et al. 2002). Fleisher advocate the use of open source for competitive intelligence because of its easy accessibility and inexpensiveness (Fleisher Craig 2008). Research proposed a set of metrics that measure the web profile of the business (Vaughan & You 2011).

Table 5: Source- Prepare by Researcher

Name of the Journal	*Number of paper*
ACR	1
Business Ethics: A European Review	1
Communications of Association for information systems	1
Decision Support Systems	2
Economic Science Series	1
Economics and Management	1
European Journal of Marketing	2
Expert Systems with Applications	1
Industrial Management & Data Systems	1
Information & Management	1
International Journal of Information Management	1
International Journal of Intelligent Systems	1
Journal of Intelligence Studies in Business	1
Regional Studies	1
Technological Forecasting and Social Change	1
Total	18

Apart from web based importance of other tools also been discussed by researchers for example traditional methods financial forecasting, analysis of budget, analysis of expenses (Gaidelys & Meidute 2012), Benchmarking(Huggins & Clifton 2010), Mystery shopping (Shing & Spence 2002), Text mining (Bose 2008) (Xu et al. 2011) (He et al. 2013). Patent Trends (Shih et al. 2010). Early warning and scenario methods (Ramírez et al. 2013), (Valeriu 2011). Baye's theorem in decision making (Michaeli, Rainer ; Simon 2008) etc.

In this category 18 research papers have been classified. It contributed around 13% of the total paper under review. Table 4 shows the classification of papers according to the journals

Implementation of Competitive Intelligence

In this category the paper focuses on application of competitive intelligence. In one of the case study of Thermoplastic Elastomers industry competitive intelligence helped company 'XYZ' to adopt product differentiation strategy rather than high volume products or low cost strategy (Salvador & Casanova 2012). Trim proposed that intelligence regarded as a separate and professional activity with representation at the highest level within the organization (Trim 2001). Organizations which have not developed a formal structure of competitive intelligence should not fall in to trap of trying to design a perfect Competitive intelligence system covering every competitor, market and technology but take baby step approach and start with three basic activity first holding competitive intelligence and counterintelligence seminars, second vulnerability testing and last establishing a strong legal and ethical footing (Mason 2006). A detail action plan has been proposed for intelligence analysis stage (Bartes 2011). In case of agriculture cooperatives of Languedoc-Roussillion implementation of ICT enhance organizational intelligence (Saba et al. 2014).

In this category 10 research papers have been classified. It contributed around 7% of the total paper under review. Table 6 shows the classification of papers according to the journals.

Table 6: Source Prepared by Researcher

Name of the Journal	*Number of Articles*
Economics & Management	1
European Integration Studies	1
International Journal of Information Management	1
International Strategic Management Review	1
Journal of Business Ethics	1
Journal of Intelligence Studies in Business	1
Journal of Medical Marketing	1
Procedia - Social and Behavioral Sciences	2
Strategic Change	1
Total	10

Relation of Competitive Intelligence with Other Construct

Competitive Intelligence capability is positively associated with superior customer value (Slater & Narver 2000). It generates the strategy inputs(Fahey 2007)(Trim & Lee 2008) (Liu & Wang 2008). For long term survival of business competitive intelligence play a crucial role (Gilad 2011). Competitive Intelligence is positively related with competitive advantage (Zangoueinezhad & Moshabaki 2009). Research proposes a synergy between competitive intelligence and knowledge management to get a competitive advantage (Ghannay & Zeineb 2012). The success of new innovation also has positive relation with Competitive Intelligence(Das 2010)(Guimaraes 2011)(Nemutanzhela & Iyamu 2011). A Sales person's tactical use of competitive intelligence has a indirect positive influence on customer satisfaction and brand loyalty (Agnihotri & Rapp 2011). Cultural factors have a major influence on collection, analysis and outcome of any competitive intelligence project (Adidam et al. 2009) (Luu 2014). Information systems are

significantly related in attaining competitive intelligence (Zangoueinezhad & Moshabaki 2009). In this category 29 research papers have been classified. It contributed around 20% of the total paper under review. Table 7 shows the classification of papers according to the journals.

Table 7: Prepared by Researcher

Name of the Journal	*Number of Articles*
Journal of the Academy of Marketing Science	1
Business Strategy Series	1
Electronic journal information Systems Evaluation	1
European Journal of Innovation Management	1
European Journal of Marketing	1
Industrial Management & Data Systems	1
Industrial Marketing Management	1
International Journal of Innovation & Technology Management	1
Issues in Information System	1
Journal of academy of Market Science	1
Journal of Global Business Issues	1
Journal of Intelligence Studies in Business	2
European Journal of Marketing	4
Journal of Strategic Marketing	1
Journal of the Academy of Marketing Science	2
Marketing Intelligence & Planning	2
Marketing Intelligence & Planning	1
Review of International Comparative Management	2
Strategy & Leadership	1
Team Performance Management	1
The Learning Organization	1
The Marketing Review	1
Total	29

Significance of Competitive Intelligence

Competitive Intelligence plays a significant role in business organizations to perform efficiently. In recent time it is also helpful for historically non competitive sector like Higher Education (Barrett 2010). Sector like Railway also has competition from other transport sectors so research recommended competitive intelligence is very much helpful for Railways (Gaidelys & Dailydka 2013). Companies implementing Competitive Intelligence to form temporally alliance with other companies to obtain French procurement contract (Mamawi 2012).

In this category 8 research papers have been classified. It contributed around 5% of the total paper under review. Table 8 shows the classification of papers according to the journals.

Table 8: Prepared by Researcher

Name of the Journal	*Number of Articles*
Economics & Management	1
Engineering Economics	2
International Journal of Business Anthropology	1
Journal of Intelligence Studies in Business	2
Journal of Management and Sustainability	1
World Future Review	1
Total	8

Conclusion and Future Research

In the exercise of classification almost half of the papers come in two categories first "Competitive Intelligence in different Countries" and second "Relation of competitive intelligence with other construct". Competitive intelligence has been studied across the globe but most of these studies are exploratory in nature and lack standardization so comparison in different countries is not possible. In this category the future research should give more focus on empirical evidences.

In the second best category it was found relation of competitive intelligence studied with other constructs like marketing orientation, entrepreneurial orientation, performance of manager, performance of organization etc. It was found in the trend that competitive intelligence getting recognition as a different concept. It is recommended that the future research should test these relations or models in different research settings.

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Impact of Psychological Empowerment on Job Satisfaction Information Technology Sector in Bengaluru

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With intense global competition, the Information Technology companies are operating in an environment encompassed by technological innovation and change. Empowering and retaining employees are the major challenges for an IT company. Employee empowerment does not mean absolute authority or absolute power. It is the extent or degree of responsibility and authority given to an employee or a team. For this Research, Bengaluru is chosen as the area of study. Survey Research is proposed for the study. The Employees were interviewed about their work situations, rapport with employers, autonomy to make decisions in their work areas, their general demeanor in the organization, and their level of satisfaction in their current jobs. Similarly, a few were questioned about their approach and attitude towards empowering their employees and granting greater freedom to subordinates. Primary data was collected from 100 entry level and middle level employees of five IT companies in Bengaluru. Secondary data collected from Journals and Research articles. Such data has been accessed electronically. Based on the findings it was found that there is a significant relationship between Employee Empowerment and Employees' Job Satisfaction.

Keywords— *Empowerment, Information Technology, Job Satisfaction, Employee Engagement*

INTRODUCTION

The study is confined to the geographical region of Bengaluru. The significance of choosing Bengaluru is, out of 29 states in India, the state Karnataka has housed India's Silicon Valley. Bengaluru is called the silicon valley of India, as it employees 35% of India's pool of 2.5 million IT professionals and account for the highest IT related exports in the country. Information Technology industry in Bengaluru has got 2 main clusters - ITPL (International Technology Park Ltd) and Electronic city. The city is home of more than 900 IT firms. India's second and third largest software companies Infosys and Wipro are headquartered in Electronics City. The great challenge for the Silicon Valley is keeping the employees engaged and empowered and thereby providing job satisfaction. The IT majors are able to achieve this and control the attrition rate. Infosys CEO Vishal Sikka, during the company's recent quarter analyst call, said that, standalone attrition has dropped to 14.1% this quarter and they are continuing to simplify the internal processes and have redesigned their performance management framework to focus more on individual accountability, individual responsibility and continuous feedback. Echoing similar thoughts, Mr. Saurabh Govil, senior VP & global head, HR, Wipro, felt that its attrition level has been under control by keeping their employees empowered. Mr. Prithvi Shergill, chief human resources officer, HCL Technologies, also remarked that providing Job satisfaction is a challenge everyday. The greatest influential factor of job satisfaction is how

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Competitive Intelligence and Indian Retail Industry

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Abstract

The article has studied the process of Competitive Intelligence in Indian retail firms. The 168 firms operating in retail sector have been selected for study from National Capital Region of India. The Calof and Dishman's model of competitive intelligence is used to study the process. Calof and Dishman's model of competitive intelligence based on the consideration that Competitive Intelligence is a process which consists of planning and focus, collection, analysis, and communication of intelligence, as well as the necessary processes and structures and an organizational awareness and culture Based on the score of Indian Retail firms on the process of Competitive Intelligence, It was concluded that Indian firm are strong in Communication and Analysis, Internal Information and Formal Infrastructure but weak in Planning and Focus and Employee Involvement.

Keywords: Competitive Intelligence, Indian Retail Industry, Calof and Dishman's model.

Introduction

Today's business environment is changing very fast. Due to the social network consumers can exchange information faster than ever before. New development of technology is helping by creating new industries. Online stores are creating global competition. The business environment is extremely dynamic. The challenge is to be continuously on the lookout for new opportunities and transforming the organizations objectives, skills, resources and capabilities as per the need of time to grasp the opportunities. Companies are using different processes and techniques to study the environment in which they are operating. Earlier companies were using Industrial Espionage to collect the information. The famous case of Tea industry in Europe, which was the monopoly of china in 1800s and Europe was having a huge demand of tea. The London based East India company hired Scottish botanist and adventurer Robert Fortune to transfer the seeds, plants and trade secrets from China to British ruled India within a period of 25 years Indian tea production surpass the production of China. Some 2400 years ago the work of Sun Tzu titled “The Art of War” is considered to be the origin of CI. In 1815 Nathan Rothschild makes his fortune in London stock exchange because of having timely

information about the outcome of battle of waterloo.

Although Competitive Intelligence have been practiced since ancient time but it is relatively a new area in academic research. Competitive Intelligence has been studied in different countries of the world. It has been studied in countries like China, USA, UK, Japan, South Africa etc. but it has not been studied in India yet. No focus has paid till date on the environment scanning practices of Indian Industries. At present due to liberal FDI policy of India, Indian retail sector is passing through a very tough competition. The objective of this study is to access the status of competitive intelligence practice in Indian retail Industry.

Literature Review

Definition of Competitive

Competitive Intelligence is not a new concept. Many competitive intelligence articles refer to the work of Sun Tzu, who has some 2400 years ago written "The art of war" a seminal text which provides a detail description of how to develop a military intelligence. (Rouach & Santi, 2001). In ancient time it was a practice of Spying and espionage. In 1815 Nathan Rothschild makes a fortune on London stock exchange due to his timely intelligence about battle of waterloo(Ferguson, 1998).In the modern era the Kelly's Book Marketing Intelligence...(1965) considered to be the pioneering work in competitive intelligence. It introduced the field of Intelligence. Nearly 30 years ago, Porter reported that whilst companies were carrying out this activity informally, in his opinion this was nowhere near sufficient. He advocated the need for a structured intelligence process at all times in order to continuously and systematically identifying business opportunities and threats (Porter, 1980). Although competitive intelligence evolved out of marketing the activities of the discipline have come to serve all business functions. ``Research and development'' people seek to monitor rival organizations while safeguarding their own data. Possessing information such as the production capabilities of a competitor's factories, furthermore, can provide valuable insights. The financial health of a competitor may influence a decision to confront the rival ``head on'' or to strategically avoid direct conflict. Although competitive intelligence began as a special area of marketing research, it has grown beyond its origins and today it provides information in all areas (Walle,1999, Dishman & Calof, 2008).

In business and academics there are many synonym terms for competitive intelligence used by different researchers for example Environmental Scanning(Aguilar, 1967)(Saxby, Parker, Nitse, & Dishman, 2002), Business Intelligence(Pearce, 1976), Competitor analysis(Ghoshal & Westney, 1991), Marketing Intelligence(Kelley, 1965).Market Intelligence(Maltz & Kohli, 1996). Intelligence helps your company sustain and develop distinct competitive advantages by using the entire organization and its networks to develop actionable insights about the environment (customers, competitor, regulars, and technology). It uses a systematic and ethical process involving, planning, collection, analysis, communication and management (Calof, 2008). According to Kahaner Competitive Intelligence is a systematic programme for gathering and analyzing information about your competitor's activity and general business trends to further your own companies' goals(Kahaner, 1998).The Society of Competitive Intelligence Professionals (SCIP) define the competitive intelligence as follows "Competitive intelligence (CI) is the process of monitoring the competitive environment. CI enables senior managers in companies of all sizes to make informed decisions about everything from marketing, R&D, and investing tactics to long-term business strategies. Effective CI is a continuous process involving the legal and ethical collection of information, analysis that doesn't avoid unwelcome conclusions, and controlled dissemination of actionable intelligence to decision makers"

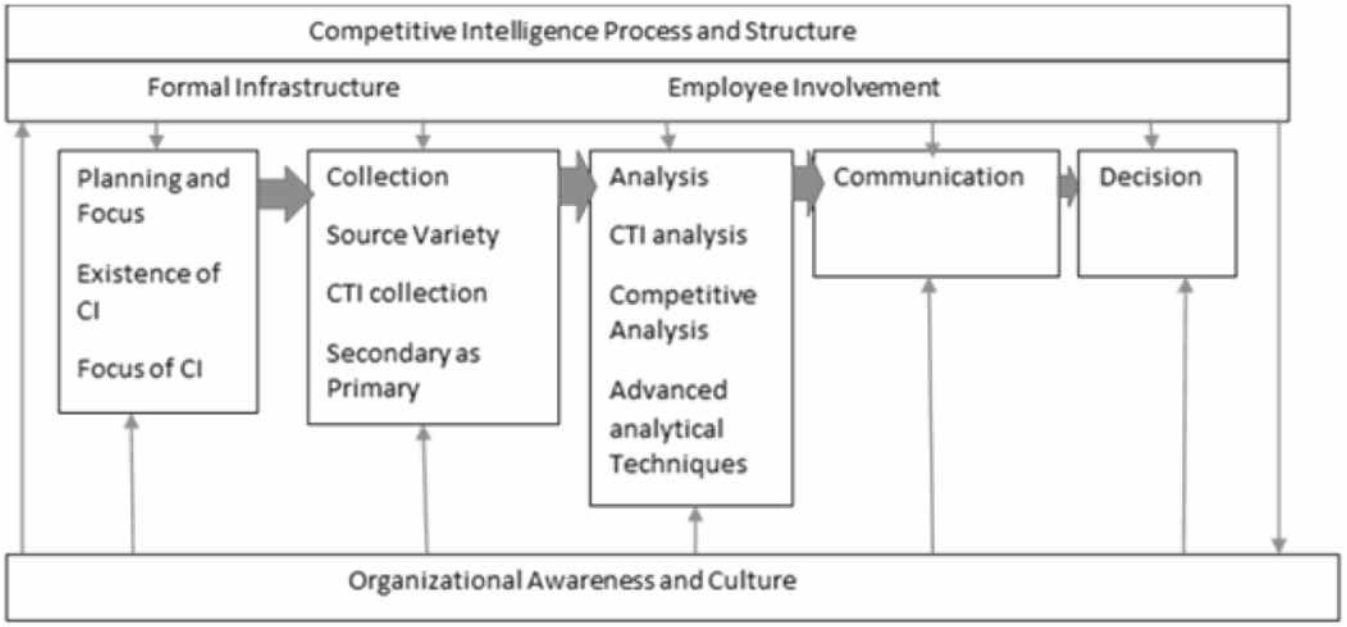
Competitive Intelligence Construct Measurement

The past research measured competitive intelligence capabilities of the firm with different ways. The literature provided two prominent models on measuring competitive intelligence. The one is based on the best practice model called Wright-Pickston best practice model (Wright, Pickton, & Callow, Competitive intelligence in UK firms: a typology, 2002). In this model the firm's capabilities of competitive intelligence measured on four parameters Attitude, Gathering style, Use and Location of competitive intelligence department in the firm. On the basis of Attitude firms are further categories as Immune, Task driven, Operational and Strategic. Gathering style further categorized as Easy and Hunter. Whether uses type is Joneses, Knee jerk, Tactical user or Strategic user and location of Competitive Intelligence department is Adhoc or Designated. On the basis of these four parameters the best practice model consists of Strategic Attitude, Hunter gathering, Strategic User and Designated location. This model is Called Wright-Pickston Model. (Wright, Pickton, & Callow, 2002). (Wright, Eid, & Fleisher, Competitive intelligence in practice: empirical evidence from the UK retail banking sector, 2009).

The second model is called Calof and Dishman's model of competitive intelligence based on the consideration that Competitive Intelligence is a process which consists of planning and focus, collection, analysis, and

communication of intelligence, as well as the necessary processes and structures and an organizational awareness and culture. Based on the above propositions and preliminary research, How much extant firms follow this process is need to measure. The above theoretical consideration first used by (Sawka, Frances, & Herrin, 1995) in developing the measurement tool. Calof and Dishman (2002) further refined it and proposed the following model (Figure 1).The same model is further refined and used by (Viviers, Saayman, Muller, & Calof, 2002) in South Africa. This model further improved and published by (Dishman & Calof, 2008) and (Saayman, et al., 2008)

Figure 1- Competitive Intelligence Model by Saayman, et al., 2008



In the research tools the final statements is taken from (Saayman, et al., 2008). The final questionnaire contains 38 CI-related statements to be answered on a five-point Likert scale. The Likert scale questions were divided into two sections. In the first section the respondent has to indicate to which degree he/she agreed or disagreed with 17 statements. In the second part 21 statements the respondents had to indicate to what extent (never to always) they implemented a certain action. The 38 statements further divided in to two parts one is Process of Competitive Intelligence and Second part is the context of Competitive Intelligence. The competitive intelligence process is having three factors Communication and Analysis, Collection and Planning and Focus. The context of competitive intelligence has four factors Awareness, Internal Information, Formal Infrastructure and Employee Involvement.

Data Collection and Analysis

The survey was conducted in the Delhi NCR region of India where the retail outlets were selected on the basis of convenience sampling. The data were collected from Connaught Place, South Extension Markets in Delhi and Ambience Mall, MG Road from Gurugram. Apart from these markets the research has collected the data from Retail Trade shows. The questionnaire was field by the Owner, CEO/Director, Marketing Head, Cluster Head or Store Manager. The response of 175 firms have been recorded out of that 7 firms have missing values of more than 50 percent so the responses of these 7 firms has been not feed in to the analysis.

Missing Value Analysis

Analysis of missing value by Little's MCAR test was performed to identify non response biasness. The chi square value is 2061.433, DF=2246, Sig = .998. The null hypothesis for Little's MCAR test is that the data are missing completely at random (MCAR). Data are MCAR when the pattern of missing values does not depend on the data values. Because the significance value is more than 0.05 it is concluded that the data are missing completely at random. There is no pattern in missing values. The missing values of likert statement were replaced by the median of that variable.

Profile of Respondent

The profile of respondents was divided in to two parts a) The profile of firm b) The profile of respondent. Profile of the firm includes the sector of retail industry in which the firm is operating. As shown in table 8 the sample firms are from 20 sectors of retail industry. The maximum numbers of firms (87) are from Apparel sector. 146 firms have more than 100 employees as shown in table 9. 130 firms have formal competitive intelligence department and 110 firms have competitive intelligence department for more than 5 years as shown in table 3. 111 firms have more than 15 employees in their competitive intelligence department as shown in table 4. The 65 firms say Marketing/Market Research deals with competitive intelligence activities in their organization. 61 firms say Sales and 24 firms say Research & Development department deals with competitive intelligence activities as shown in table 10.

Table 1 Sector of Retail Firms

In which sector of Retail Industry you are operating?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Apparel	87	51.8	51.8	51.8
	Footwear	17	10.1	10.1	61.9
	Electronics	10	6.0	6.0	67.9
	Fashion	10	6.0	6.0	73.8
	Food & Beverages	9	5.4	5.4	79.2
	Ayurvedic Beauty Product	5	3.0	3.0	82.1
	Grocery Store	5	3.0	3.0	85.1
	Departmental Store	3	1.8	1.8	86.9
	Home Interior Products	3	1.8	1.8	88.7
	Jewellery	3	1.8	1.8	90.5
	Kids Retail	3	1.8	1.8	92.3
	Lifestyle	3	1.8	1.8	94.0
	Gift Retail	2	1.2	1.2	95.2
	Watches	2	1.2	1.2	96.4
	Bathroom Accessories	1	.6	.6	97.0
	Eye care and Eyewear	1	.6	.6	97.6
	Furniture Retail	1	.6	.6	98.2
	Sports	1	.6	.6	98.8
	Super Market	1	.6	.6	99.4
	Travel & Tourism	1	.6	.6	100.0
	Total	168	100.0	100.0	

Table 2 Employee Wise Profile of the Responding Firm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More than 100	146	86.9	89.6	89.6
	51-100	11	6.5	6.7	96.3
	10-50	5	3.0	3.1	99.4
	Less than 10	1	.6	.6	100.0
	Total	163	97.0	100.0	
Missing	9	5	3.0		
Total		168	100.0		

The profile of respondent who represented the firm in sample includes his Designation, Gender, and Qualification and how long he or she has been working with the firm. 140 respondents were male and remaining 28 were female, 123 respondents were post graduates and 31 were undergraduates, 140 respondents are working with the firm for 5 years or more than 5 years.

Table 3 Designation of Respondent in Firm

Designation of Respondent in Firm					
		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Store Manager	141	83.9	85.5	85.5
	Head o f Marketing/Strategic division	21	12.5	12.7	98.2
	CEO/Director	3	1.8	1.8	100.0
	Total	165	98.2	100.0	
Missing	9	3	1.8		
Total		168	100.0		

Table 4 Qualification of Respondent

Qualification of Respondent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	31	18.5	18.5	18.5
	Post Graduation	123	73.2	73.2	91.7
	Other	14	8.3	8.3	100.0
	Total	168	100.0	100.0	

Table 5 Respondent's tenure with the firm

How long Respondent have been working or Running this Company?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 or >5 Years	140	83.3	89.2	89.2
	3 to <5 years	13	7.7	8.3	97.5
	Less than One Year	2	1.2	1.3	98.7
	1 to <3 Years	2	1.2	1.3	100.0
	Total	157	93.5	100.0	
Missing	System	11	6.5		
Total		168	100.0		

Status of Competitive Intelligence

The overall performance of Indian retail firms on these phases has been investigated on the bases of the total score of the firm in the respective phase. If the average score of the firms is more than 75 % of the total score of the factor it means firms are practicing advance level of Competitive Intelligence in that respective factor. If the average score of the firms is more than 50% of the total score of the factor it means firms are practicing intermediate level. If the average score is less than 50% of the total score of it means firms are practicing a basic level of competitive intelligence in that particular factor.

Factor 1 Planning and Focus

This factor consists of five statements which are measured on five points Likert scale. All five statements are positive so no need to reverse the coding of statements. The total possible score in Planning and Focus construct is 25. The Indian Retail firms have mean score of 15.30. It is 61.2% of the total score. The mean score of firms on Planning and Focus is more than 50% of the total score so Indian Retail firms are practicing intermediate level of Planning and Focus.

Factor 2 Collection

This factor consists of five statements which are measured on five point Likert scales. All five statements are positive so no need to reverse the coding of statements. The total possible score in Collection construct is 25. The Indian Retail firms have mean score of 15.85. It is 63.4% of the total score. The mean score of Indian Retail firms on Collection factor is more than 50% and less than 75% of the total score so Indian Retail firms are practicing

intermediate level of collection.

Factor 3 Communication and Analysis

This factor consists of seven statements which are measured on five point Likert scales. All five statements are positive so no need to reverse the coding of statements. The total possible score in Communication and Analysis construct is 35. The Indian Retail firms have mean score of 25.29. It is 72.3% of the total possible score. The mean score of Indian Retail firms on Communication and Analysis factor is more than 50% and less than 75% of the total score so Indian Retail firms are practicing intermediate level of Communication and Analysis.

Indian retail firms in terms of following competitive intelligence process are categorized as the practitioners of the intermediate level of competitive intelligence. In the comparison of three factors, Indian firms are competitively good in Communication and Analysis and weak in Planning and Focus

Table 6 Descriptive Statistics of Various Factors of CI

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Communication and Analysis	168	11.00	33.00	25.29	5.69
Collection	168	5.00	25.00	15.85	4.16
Planning and Focus	168	5.00	23.00	15.30	4.05
Awareness	168	7.00	20.00	16.39	2.95
Internal Information	168	7.00	29.00	20.34	4.79
Formal Infrastructure	168	5.00	25.00	18.57	4.34
Employee involvement	168	4.00	14.00	9.58	2.52
Valid N (listwise)	168				

Factor 4 Awareness

This factor consists of four statements which are measured on five points likert scale. All four statements are positive so no need to reverse the coding of statements. The total possible score in Awareness construct is 20. The Indian Retail firms have mean score of 16.39. It is 81.95% of total score. The mean score of firms on Awareness is more than 75% of the total score so Indian Retail firms have an advance level of Awareness.

Factor 5 Internal Information

This factor consists of six statements which are measured on five points likert scale. All six statements are positive so no need to reverse the coding of statements. The total possible score in Awareness construct is 30. The Indian Retail firms have mean score of 20.34; It is 67.80% of total score. The mean score of firms on Internal Information is more than 50% of the total score so Indian Retail firms have an intermediate level of Internal Information.

Factor 6 Formal Infrastructure

This factor consists of five statements which are measured on five points likert scale. All five statements are positive so no need to reverse the coding of statements. The total possible score in Formal Infrastructure construct is 25. The Indian Retail firms have mean score of 18.57. It is 74.28% of total score. The mean score of firms on Formal

Infrastructure is more than 50% of the total score so Indian Retail firms have an intermediate level of Formal Infrastructure.

Factor 7 Employee Involvement

This factor consists of three statements which are measured on five points likert scale. All three statements are positive so no need to reverse the coding of statements. The total possible score in Employee Involvement construct is 15. The Indian Retail firms have mean score of 9.58. It is 63.98% of total score. The mean score of firms on Employee Involvement is more than 50% of the total score so Indian Retail firms have an intermediate level of Employee Involvement.

Indian retail firms in terms of competitive intelligence context are having an advance level of Awareness, intermediate level of Internal Information and Formal Infrastructure and Employee Involvement.

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