Insights from Factor Analysis on the Marketing Practices of ICT Firms in India



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The Information and Communication Technology (ICT) sector operates in a highly competitive environment. Hence the marketing of these high technology (HT) products differs significantly from the marketing of other low technology products. Although the importance of marketing for the success of HT firms is widely recognized, very little research has been undertaken into the strategic marketing practices of these firms. The gap in literature and the need for theory development in regards to the marketing practices of HT firms have been identified by the researchers. This paper seeks to address this need for both conceptual and empirical research in this area. More specifically the paper examines the marketing practices of the ICT firms in India. The conceptual framework developed for this research integrated literature from different schools of marketing such as HT marketing, marketing mix theory, relationship marketing theory and social media. Exploratory factor analysis of survey data revealed ten factors that were indicative of the strategic marketing practices (SMPs) of the ICT firms in India. Interestingly, Social Media emerged as a new construct and some of the items used to assess Social Media practices are loaded in the factors such as Relationship Marketing and Market Research. Cronbach's alpha obtained from reliability analysis of the composite measures ranged from .752 to .920. Reliable measures for Social Media practices were obtained from this empirical study. This research also provides a basis to explore the influence of these SMPs on firm performance.

1. Introduction

The revolution of the information and communication sector with the liberalization of trade restrictions and globalisation has resulted in an increase in the number of High Technology (HT) firms all over the globe. Locke (2004) contends that the two forms of technology - communication technology and information technology, converged, creating a new type of technology known as Information and Communication Technology (ICT). Communication Technology consists of the hardware equipment, organisational structures and social values by which individuals collect process and exchange information with other individuals. Information Technology refers to computer and electronic-based technology, generally encompassing the development, installation and implementation of computer systems and applications. Thus ICT facilitates the exchange of information on a many-to-many basis, specifically through computer and electronics based

communication systems. In India, ICT firms are identified as those industries that are primarily intended to fulfill and facilitate the function of information processing and communication by electronic means, including transmission and display (Central Statistics Report, 2010).

A report by the Central Statistics Office (Ministry of Statistics & Programme Implementation MOSPI, 2010) records the contribution of the ICT sector to the Indian Economy. The ICT sector's Gross Domestic Product (GDP) has increased from Rs. 656 billion in 2000-01 to Rs. 2530 billion in 2007-08. The share of the ICT sector to the total GDP was 5.52% during 2007-08, which was only 3.05% in 2000-01. Apart from this, ICT also contributes to employment generation, market diversification, foreign exchange earnings, economic globalization and liberalization and socio-cultural developments (Central Statistics Office, MOSPI, 2010).

Research done on the marketing of HT products asserts that it differs significantly from the marketing of other low technology products (See for example, Gardner, Johnson, Lee & Wilkinson, 2000; Yadav, Swami & Pal, 2006). The importance of marketing for the success of HT firms is also noted by Traynor and Traynor (2004). In spite of the differences in their marketing practices and the importance of marketing to the success of HT firms, it is posited that very little study has been undertaken into the strategic marketing practices of these firms (Hills & Sarin, 2003). The gap in literature for the general theory development related to the marketing for HT firms has also been identified by Uslay, Malhotra and Citrin (2004). Their study noted the need for both conceptual and empirical research regarding the marketing of HT products.

The objective of this paper is to establish and develop valid measures of the marketing practices of ICT firms in India. This paper

- Examines the theoretical underpinnings of the constructs used to identify the marketing practices adopted by the ICT firms in India
- Reports the results of exploratory factor analysis of the various items used to measure the marketing practices adopted by these firms.

The next section, literature review, explains the theoretical perspective on which the conceptual model was developed for this research. Section 3 includes a description of the research methodology adopted for this study. Section 4 presents the results obtained from exploratory factor analysis, followed by the discussion and implications in Section 5 and the conclusion in Section 6.

2. Literature Review

This section begins by explaining the unique characteristics of the marketing environment of the HT firms which necessitate modifying the marketing practices adopted by these firms. This overview of the marketing environment of HT products and services signifies the marketing environment of ICT firms, as ICT is recognized as an HT sector. The second part of this section details the theoretical background on which the conceptual model for this research was developed.

HT Marketing Environment

A review of extant literature shows certain fundamental characteristics of the marketing environment which are unique to firms existing in the HT sector. In particular, literature identifies uncertainty as an overarching central tenet of HT

marketing literature (See, Mohr, Sengupta & Slater, 2010; Gerhard, Brem, Baccarella & Voigt, 2011). The HT marketing environment is best described to be at the intersection of market uncertainty, technological uncertainty and competitive volatility. These three uncertainties are contended as the inherent feature of the marketing environment in which the HT firm exists. This marketing environment is characterized by the fluctuant and turbulent marketing environment, which is defined as complicated and challenging (Yadav et al., 2006).

Since the 1980s, it is proposed in marketing literature (Wind & Robertson, 1983; McDaniel & Kolari, 1987) that changes in the marketing environment bring about changes in the marketing practices adopted by the firms existing in the environment. It was posited that successful organizations are those that interact most efficiently with their environment and adopt appropriate marketing strategies relevant to their marketing environment (See McDaniel & Kolari, 1987; Day & Wensley, 1983).

This is also acknowledged by researchers specializing in HT marketing. For example, Gardner et al., (2000) contend that HT marketing is influenced by different industry/market situations. This is in line with the view of Mohr and Shooshtari (2003), who posit that as a result of the unique characteristics of the marketing environment of the HT firms, marketing must be adapted and modified to effectively handle the complicated environment. It is asserted that this difference in the business environment of HT firms requires modification in the standard marketing strategies and the tactics that are adopted by these firms (Uslay et al., 2004; Yadav et al., 2006; Gardner et al., 2000). It was also pointed out that the rapid advancement in technology and the turbulent marketing environment necessitate the businesses to have more distinctive marketing strategies.

Apart from the differences in the marketing environment, the HT products are also different from other low technology products and services. These differences stem from the unique product characteristics including continuous shortening of product and market cycles, interdependence of HT products, high research and development expenses, frequent product improvements, and rapid obsolescence of products and services (Kaynak & Hartley, 2005; Gongming & Lee, 2003).

The importance of marketing in bringing HT to the market is well documented by various researchers (Traynor & Traynor, 2004, Uslay et al., 2004). It is argued that HT firms find it increasingly difficult to maintain competitive advantage through technological superiority alone which contributes only to the short term competitiveness of the firms (Traynor & Traynor, 2004; Kaynak & Hartley, 2005). Firms were found to struggle to match their capabilities with customer needs as a consequence of the technology oriented-culture. This calls for the need for a greater marketing-oriented culture in high technology firms, as marketing is identified as the single dominant interface between the firm and the customers (Uslay et al., 2004; Boussouara and Deakins, 1999). Despite the need to modify the marketing practices of HT firms and the importance of marketing to the success of the ICT firms, very little research has been undertaken into the strategic marketing practices of these firms (Hills & Sarin, 2003). Researchers contend that there is a dearth of research in the marketing of HT products and services (Boussouara & Deakins, 1999; Hills & Sarin, 2003). The gap in literature for the development of theory related to the marketing of HT products has been identified by Uslay et al., (2004). In their study they note that there is a need for both conceptual and empirical research regarding the marketing of HT products.

Theoretical Background

According to Gummesson (2002), no one has been able to suggest a more general and systemic theory to sort out the constituent elements of marketing and their links on a higher conceptual level. Further, there are no specific theories that are exclusive to explaining all the concepts in marketing management. Being mindful of this fact, in this section, the theoretical perspective, that provides the basis on which the conceptual model was developed, is presented. The proposed conceptual model and the rationale for the choice of the constructs in the model are also discussed in this section.

Marketing Management Perspective

The continuous transformation in the theoretical perspectives of marketing management since the 1900s led to the development of the marketing management school of thought. Weber (1992) calls it the "managerial approach" to the study of marketing, which evolved in the 1950s and the 1960s. This school of thought was characterized by a decision-making approach to managing the marketing functions with an extended focus on the customers. Vargo and Lusch (2004) contend that "McCarthy (1960) and Drucker (1967) characterized marketing as a decision-making activity directed at satisfying the customer at a profit by targeting a market and then making optimal decisions on the marketing mix or the 4ps" (p. 1).

This proposition that emerged as the 4Ps marketing mix theory is often recognized as the traditional view of marketing and is referred in literature as transaction marketing or marketing mix management. According to this view, the focus of the firm is on managing the marketing mix decision variables – Product, Price, Promotion and Place (distribution) in order to attract customers (that is, to generate a transaction). Thus transaction marketing involves a firm managing the elements in the marketing mix to attract potential buyers and to satisfy them (Coviello, Bordei, Danaher & Johnston, 2002).

The marketing mix theory/concept has its origin in the 1960's. Grönroos (1994) contends that the expression "mixer of ingredients" was originally used by Culliton (1948, cited by Grönroos, 1994), to connote the concept of the "marketer" in a study of marketing costs in 1947 and 1948. In 1964, Neil Borden identified twelve controllable marketing elements. According to him, if these elements are properly managed it would result in a profitable business operation. These Borden's factors were reduced by McCarthy, to a simple four element framework: Product, Price, Promotion and Place (Grönroos, 1994). The majority of marketing practioners began to use the marketing mix as a toolkit of transaction marketing and a classical model for operational marketing planning.

The 4Ps mix also played an exceptional role in the advancement of the marketing management science. It developed as a fundamental concept of the commercial philosophy with theoretical foundations in the optimization theory (Webster, 1992). Several studies also confirmed that the 4Ps mix is certainly the trusted conceptual platform for practioners dealing with tactical/operational marketing issues

Segmentation and targeting, and differentiation and positioning were also introduced in the marketing literature, during this period. Marketing research also gained significance in marketing management practice during this period as an instrument for aligning the firms' productive capabilities with the needs of the market place (Webster, 1992). Accordingly the marketing management school

formed a union between the "marketing concept" that firms exist to satisfy customer wants, and the perspective of optimizing profit through the management of the marketing mix (Pels & Saren, 2009). The marketing management school signified the development of optimal marketing management solutions by solving, for optimal marketing mix, segmentation solution and offering positioning.

The emergence of the services marketing literature during the 1970s brought to light the limitations of the marketing management school of thought. Pels and Saren (2009) summarized the major limitation of the marketing management school as one that did not mention anything about the buyer-seller interactions or relationships. This was so because in the 1980s the world economy became a predominant services economy, with its focus on customer service. The central tenet of marketing moved from a product-dominant view, in which tangible products and transactions were central, to a service-dominant view, in which intangibility, exchange processes and relationships were central (Vargo & Lusch, 2004). Hence the marketing management traditions were questioned by those researchers who were interested in studying the marketing of services.

The primary concern of such researchers was that the marketing-mix approach did not include the modeling and the managing of the relationships between the service provider and the customers. It was contended that the aspect of long-term relationships with customers and other stakeholder groups was often overlooked in mainstream marketing management literature (Dwyer, Schurr & Oh, 1987). In spite of this major limitation, marketing mix theory, which emerged from the marketing management school, is considered by many as a trusted conceptual platform for practitioners (Coviello et al., 2002; Constantinides, 2006).

As discussed above, from the 1980s the world economy became predominantly a services economy, with its focus on long-term relationships with customers. The emphasis on the importance of the development and the maintenance of long term buyer-seller relationships led to the emergence of relationship marketing.

Relationship Marketing Theory

Since early 1980's there has been a significant increase of interest in theory, research and practice focusing on the buyer-seller relationships in marketing (Dwyer et al., 1987; Lewin & Johnston, 1997). During these decades, companies competing in both consumer and industrial markets sought the help of their suppliers to support them to achieve stronger competitive advantage by supplying them with higher quality products, improved services, and efficient distribution systems. Thus, they began to embrace co-operative buyer-seller relationships. Accordingly, the parties involved in the exchange attained and settled for lower total costs by working together to ensure efficient management of inventories, to share risks and to eliminate unnecessary tasks and procedures (Lewin & Johnston, 1997). These "discrete" market relationships were progressively displaced by closer, long-term relationships between the buyers and the sellers (Macneil, 1981 Cited by Lewin & Johnston, 1997).

The term "Relationship marketing" was first alluded to by Thomas in 1976 (Cited by Harker & Egan, 2006). This term was explicitly used by Berry (1983) in the context of services marketing. Relationship marketing is described as attracting, maintaining and enhancing customer relationships. Servicing existing customers and

selling to them is viewed to be just as important to long-term marketing success as acquiring new customers (Berry, 2002).

Although research identifies numerous factors associated with relationship marketing constructs, the factors that were most cited are trust, commitment and communication. These three factors are consistently identified as significant for relationship marketing practice to be successful. Trust is recognized as the central component in all relational exchanges (Dwyer, et al., 1987; Lewin & Johnston, 1997). Trust exists when one party in the exchange process has confidence in an exchange partner's reliability and integrity. Also Dwyer et al., (1987) argue that trust provides a basis for future collaborations, which results in long term relationships among the partner firms. It is proposed that trust is the extent to which the customer believes that the vendor has intentions and motives beneficial to the customer and is concerned with creating positive outcomes for the customer.

Commitment is the other major component of relational exchanges (Anderson & Weitz, 1992; Moorman, Zaltman & Deshpande, 1992). It is defined by Moorman et al., (1992) "as an enduring desire to maintain a valued relationship" (p. 316). Studies propose that relationship commitment is the crux of all successful working relationships and is also commended as an essential ingredient in successful long term relationships. It is posited that commitment increases with the ability of the exchange partners providing positive outcomes to one another in their relationship.

Communication is also an important aspect of successful relationships and a major antecedent to trust and commitment (Anderson & Narus, 1984; Mohr, Fisher & Nevin, 1996). Anderson and Narus describe communication as "formal and informal sharing of meaningful and timely information between firms' (1990, p.44). Empirical research from literature suggests that communication increases the level of trust between firms (Anderson & Narus, 1984; Anderson & Weitz, 1992). Along with the partners' ability to align their expectations and perceptions, communication also helps build trust among partners by providing a mechanism that could be used to resolve conflicts (Arnett & Badrinarayanan, 2005).

Social Media

It is proposed by Naude and Holland (2004) that marketing has moved from the transactional approach, through the relationship approach, and into a new era that is called information marketing. In this new era it is posited that the successful acquisition, analysis and deployment of information is the key to marketing success. Accordingly Brennan and Croft (2012), and Naude and Holland (2004), contend that the most successful marketing organizations in this era will be those that make the most effective use of Information Technology tools in developing their marketing strategy. The latest tool to emerge, that has huge impact on the marketing practices of firms is social media.

Social media marketing is a form of word-of-mouth marketing, done with the intention of influencing customer communications by professional marketing techniques through the World Wide Web (Kozinets, de Valck, Wojnicki & Wilner, 2010). Social media facilitates the companies to talk to their customers directly and to listen to what their customers are saying about them and their products and services, thereby enhancing the relationship between them. Because social media helps to know the pulse of the customer and deepens the relationship with the customers, it is proposed that it would influence customer satisfaction. It is found to

drive customer purchase intentions, and build brand image, thereby influencing the performance of the firms.

Integrated Approach to Marketing Practices

All through the marketing literature, there have been consistent arguments about the superiority of one particular approach over the other (for example, see Constantinides, 2006; Sheth & Parvatiyar, 2000; Vargo & Lusch, 2004). However, Lehtinen (2011) posits that the marketing mix and relationship approaches can be combined extensively. He contends that "when developing marketing theory, marketing mix and relationship marketing should not be considered as rivals but rather complementary approaches that could even be combined" (p. 118)

The idea of combining approaches was explicitly presented by Lehtinen in 1983, even before Berry (1983) introduced the term 'relationship marketing'. He anticipated that the importance of marketing mix will not disappear but would be improved through an integrative approach. It is evident from empirical research done in marketing that the parallel use of mix and relationship marketing approaches is characteristic of most firms. Lehtinen (2011) proposes some of the reasons for an integrated approach to marketing. They are

- The complicated environment has created a need for a comprehensive approach to marketing
- The above discussed major approaches to marketing have their own distinctive strengths and therefore, they complement each other
- These approaches have never been fully separated, not only in theory but also in marketing practice. Hence firms using one approach necessarily integrated elements from the other approach
- Combining these basic approaches fills the gaps that separate theories and between theory and practice.

Even though the idea of combining the approaches has received little attention in marketing research, there are few studies in marketing literature that used combined approaches to identify the marketing practices firms. For example, Coviello and Brodie (2000) concluded that, regardless of the firm size, to capture the scope of what is being practiced, the theoretical framework should include the full spectrum of marketing types. To quote them "studies that attempt to assess the presence of a particular type of marketing (for example, Transaction marketing) are not likely to capture the scope of what is really being practiced. This concern is valid regardless of firm size." (p.541). Further, Fruchter and Sigue (2005) also contend that marketing is about both exchange transactions and exchange relationships.

Based on the above discussions, this research seeks to simultaneously examine the transactional and relational practices to determine and discover the marketing practices emphasized by the ICT firms and how these various practices relate to firm performance. In integrating these different theoretical perspectives, this research captures both the transactional and relational marketing practices of the ICT firms.

Further this paper also identifies the social media practices adopted by the ICT firms in India. Literature suggests the extensive use of social media by firms all over the world (Naude & Holland, 2004; Brennan & Croft, 2012). The effective use of social media is found to improve customer satisfaction and enhance firm performance.

The conceptual model (based on the integrated approach) showing the elements of the strategic marketing practices of the ICT firms is presented (Figure. 1). These include social media, relationship marketing, market research, segmentation, targeting, differentiation, positioning and marketing mix practices. These are identified as the predictor variables in the conceptual model. Customer satisfaction is posited as the mediating variable and firm performance is regarded as the dependent variable. The conceptual model for the research is presented below.

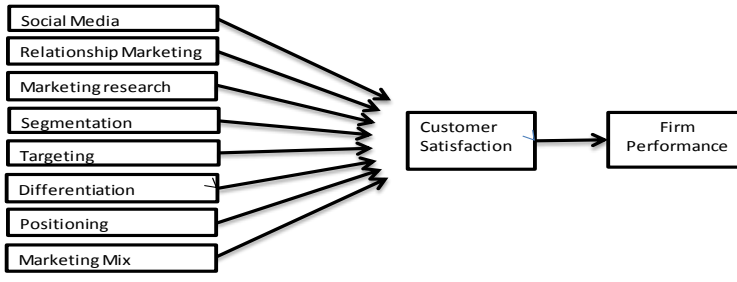


Figure 1 *Preliminary Conceptual Framework of the Strategic Marketing Practices of ICT Firms and their Influence on Firm Performance*

Strategic Marketing Management and Firm Performance

In literature, much evidence exists proving the contribution of strategic marketing to firm performance. For example, Doyle & Wong (1998), found a strong correlation between marketing and business performance. In their study, they contend that marketing strategy and marketing planning are also highly correlated with performance. Knight (2000) argued that in the globalised environment, adopting suitable marketing strategies to suit the uncertain and turbulent environment is positively associated with firm performance. Knight also posits that marketing strategy is designed to generate tactics and other actions that satisfy the demands of the consumers in specific markets which lead to desired corporate objectives.

It is acknowledged that application of strategic marketing management practices in HT firms increase customer satisfaction and thus enhances firm performance (Mohr et al., 2010). It is also contended that under conditions of strategic uncertainty, strategic marketing management processes are significantly more important as determinants of long term performance. Since HT environments are fraught with change and uncertainty (Mohr et al., 2010), it is posited that application of strategic marketing management practices in ICT firms increases customer satisfaction and thus enhances firm performance. An extant literature review showed that all the independent variables in the conceptual framework were found to influence customer satisfaction and firm performance.

Customer Satisfaction

According to Gupta and Zeithaml, (2006) customer satisfaction is defined essentially as the consumer's judgement that a product or service meets or falls short of expectations. Firms seek to increase customer satisfaction, because satisfied customers ultimately lead to financial benefits to the firms who serve them (Ranaweera & Prabhu, 2003).

There is significant evidence in the marketing literature that customer satisfaction is an important driver of a firm's profitability. For example, Rust, Moorman, and Dickson (2002) report a positive impact of customer satisfaction on financial performance, such as return on investment and return on assets. Yeung and Ennew (2002) studied the impact of customer satisfaction on profitability. Their research results suggested that satisfaction does have a positive impact on profitability. A study on the personal computers industry by Smith and Wright (2004), suggests that the firm's ability to satisfy its customers provides a sustainable competitive advantage that allows higher average prices, higher sales growth and higher return on assets. Customer satisfaction is also recognised as one of the market assets that can be leveraged to produce superior financial performance (Clark, 1999).

In response to the competitive market place, managers seek to improve organizational effectiveness by identifying organizational metrics which contribute to long term success (Sui-Hua, 2007). They contend that organizations are touting for continuous improvement strategies to stay ahead of the competition. In order to drive continuous improvement, researchers are placing more importance on measuring organizational performance from the customer's perspective. A growing number of organizations are using customer satisfaction measures in developing, monitoring and evaluating product and service offerings (Anderson, Fornell & Lehmann, 1994). This is because the firm's ability to satisfy customers provides a sustainable competitive advantage which is necessary to operate in today's competitive global environment (Smith & Wright, 2004).

Customer satisfaction is a very important fundamental indicator of firm's performance due to its link to behavioural and economic consequences that are beneficial to the firm. According to Gupta and Zeithaml (2006), customer satisfaction is expected to lead to repurchase behaviour (behavioural consequence), which translates into increased sales and profits (economic consequence). Also, customer satisfaction is the central element in the marketing exchange process (Martin-Consuegra, 2007). The marketing concept starts with a well-defined market, focuses on customer needs, coordinates all the activities that affect customers, and produces profit by satisfying customers (Kotler & Keller, 2007). Hence it is appropriate to use customer satisfaction as an intervening variable.

Firm Performance

Firm performance measures attempt to evaluate the extent to which the firm's financial and other objectives are achieved (Jarvis, Curran, Kitching & Lightfoot, 2000; Knight, 2000). It has been acknowledged in literature that firm performance is a complex and multidimensional construct (Wolff & Pett, 2006). Firm performance may, at various times, be reflected by financial outcomes, sales or market growth, customer satisfaction, or establishment of a foundation upon which future growth may take place. From the marketing practice perspective, performance is seen to be influenced primarily by the firm's management of the marketing mix, the usefulness of its marketing research, the appropriateness of its positioning strategies, relationship marketing practices and social media practices. Many different criteria for evaluating performance have been used. According to Rust et al., (2004), the measures of performance often prioritise profit maximisation. The financial measures of performance includes profitability measures indicated by return on

investment, profit margins (Jarvis et al., 2000); shareholder value (Gronholdt & Martensen, 2006); sales, market share and cash flow (Clark 1999; Rust et al., 2004).

3. Research Design and Methodology

This section discusses the research design, data collection and sampling methods employed in this research. Sub-sections which describe the questionnaire design, sampling design, instrumentation and survey implementation are included in the discussion.

Exploratory research design was used in this research to obtain insights into the different marketing practices of ICT firms in the Indian context. To achieve this, a survey method of data collection was used in this study. The choice of the suitable survey method depends on the context of the specific research and the advantages of the chosen method over the other options (Malhotra, 2010; McDaniel & Gates, 2010). This study includes ICT firms and so the sample population has access to the internet. Hence self-administered web survey method of data collection was adopted for the study as it facilitates speedy data collection, geographical flexibility, and less cost, and there is less interviewer interference (Zikmund & Babin, 2012; Braunsberger, Wybenga & Gates, 2007). A formal, well-structured questionnaire was used to obtain specific information from the representative sample.

A review of relevant literature and a series of informal discussions with the academic staff and experts in ICT firms guided the development of the survey instrument of this study. Structured questions were used in the questionnaire. Fixed alternative questions were used because it was easier for the respondents to answer and it enabled comparability of answers, facilitated coding, tabulation and interpretation of data (McDaniel & Gates, 2010; Hair, Black, Babin, Anderson & Tatham, 2010).

In order to minimize the risk of comprehension and misinterpretation problems, definitions of key question concepts were made available to the web survey respondents as suggested by Peytchev, Conrad, Couper & Tourangeau (2010). This helped the researcher to communicate the intended meaning of the key concepts in the questionnaire to the survey respondents, thereby increasing the accuracy of the responses. All key concepts were clearly defined in the questionnaire to improve the accuracy of the survey results.

In the web survey questionnaire all the items for a construct were presented on the same page. This facilitated easy referencing to the definitions of the construct and to effectively lead the respondents through to complete the questionnaire. All the questions and the definitions for the constructs were highlighted. A “progress bar” to indicate the percentage completion of the questionnaire was included in each page of the questionnaire. The “back button” option was added to assist respondents, if they wanted to go back and change the answers. The respondents were required to access a uniform resource locator (URL) to take the survey. Because of the save and continue option in the questionnaire, they also had the possibility of completing the survey at their convenience within the stipulated time frame of two weeks.

Once the questionnaire was developed, it was pre-tested with a small group of respondents as suggested by Zikmund and Babin (2012) to check for clarity of questions, relevance and completeness. The pre-testing improved the face validity of the survey questionnaire. Further modifications to the questionnaire content, format, wording and response alternatives were made based on the results of the pretest.

Also, every effort was undertaken to develop the final questionnaire so that it was more respondent friendly.

International Standard Industrial Classification (ISIC) codes were used in this study to describe and identify the ICT firms in India. The sampling frame for this research comes from the list of registered online panel members of a reputable market research agency who provided the data collection services for this research. In the survey, screening questions were used to overcome the sampling frame error. All over India there are approximately 2393 ICT firms with 50 to 499 employees. Approximately 1907 of the 2393 firms are clustered in specific cities like Bangalore, Chennai, Delhi/Greater Noida, Mumbai/Pune and Hyderabad/Secunderabad, which are known as the "IT Hubs" in India. The survey was sent to all the members in the sample population. The web survey yielded 187 completed questionnaires. This sample size was well within the acceptable range of 100-200 for well-defined factors (Tabachnick & Fidell, 2013; MacCallum, Widaman, Zhang & Hong, 1999).

Measurement and Scaling of Constructs

The theoretical background and an extensive review of related literature helped to identify the concepts that must be measured to answer the research question and to achieve the research objectives. The concepts identified from literature for this research are: social media, relationship marketing, market research, segmentation, targeting, differentiation, positioning, marketing mix, customer satisfaction and firm performance.

These identified concepts are abstract and must be made operational in order to be measured. The operational definition of the variable takes the construct from being the abstract to the concrete (Zikmund & Babin, 2012). In this research the constructs were operationalized and the activities (items) that are to be measured were generated from literature in line with the operationalization of the definition of the construct. Care was taken that all measurement scales reflect the underlying construct. Each of the constructs was measured with a number of items and therefore a multi-item instrument was used in this research. Social media was measured with 11 items; relationship marketing, 10 items; market research, 7 items; segmentation, 8 items; targeting, 5 items, differentiation, 5 items; positioning, 3 items; product, 11 items, pricing and distribution, each with 6 items; and promotion with 11 items. A composite measure of the several items used would be obtained to form and to measure a single construct. The composite measures would be used for subsequent analysis.

Likert scales (itemized rating scale) were used to evaluate the scale items used in the research. The anchor points of the Likert scale used were 1=strongly disagree and 7 = strongly agree. The respondents were asked to indicate their degree of agreement by choosing any one of the seven response categories for all the items used to measure the various concepts. To increase the number of completed questionnaires, the survey was sent to all the elements or respondents in the sampling frame defined for the research. The web survey yielded 187 usable responses out of the 254 responses that were received.

4. Results

Exploratory factor analysis (EFA) was used in this study with the primary objective of identifying the underlying structure among the 83 variables in the analysis (Hair et

al., 2010). Only those items that were used to measure the independent variables in the conceptual framework were included in the EFA. The suitability of the data for factor analysis was assessed by the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test for sphericity. Significant scores of .904 for sampling adequacy and Chi-square value of 5135.122 (significance. 000) rendered the data suitable for factor analysis (see table 1).

Table 1 *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.904**
Bartlett's Test of Sphericity	Approx. Chi-Square	5135.122
	Df	1035
	Sig.	.000

Between the two methods of EFA, viz, principal components analysis and common factor analysis, the latter method was identified as the suitable method for this study, as the primary objective was to identify theoretically meaningful underlying factors (Ho, 2006). There are various methods for factor extraction in common factor analysis. However, principal axis factoring (PAF) was employed in this research, as it is established in literature that this method of extraction recovers weak factors much better than most other methods of EFA. It is also recognized as one of the most popular estimation methods in EFA (Winter & Dodou, 2012). The objective of this study was to discover theoretically meaningful factors, and hence oblique rotation (promax) was found to be appropriate for the exploratory factor analysis. Oblique rotation is found to exhibit the clustering of variables more accurately.

Eigen values were used to determine the number of factors to be extracted. Since Eigen values of 1 or greater than 1 are considered to be significant (Ho, 2006), all other factors with Eigen values less than 1 were disregarded in the analysis. Items on all factors, with factor loadings less than .33 were deleted from the analysis. Single item factors were also excluded from the analysis from the standpoint of parsimony (Lawson-Body, Willoughby & Logossah, 2010). Items with squared multiple correlations less than .4 were excluded from the analysis as it indicates that these items do not measure the same construct that the rest of the items are attempting to measure (Anna & Osbourne, 2005).

The iterative sequence of factor analysis and item deletion was repeated, resulting in a final instrument of 43 items representing 10 distinct factors. These 10 factors extracted through factor analysis, explains 72.36% of the variance evidenced in the quantitative data. This percentage of the variance is regarded as sufficient to represent the data (Pett, Lackey & Sullivan, 2003). Cronbach's alpha is used in this study to assess the degree of consistency between multiple measurements of a variable (Hair et al., 2006). Cronbach's alpha, also referred to as the coefficient of reliability describes how closely related the items are as a group in defining the construct. Communality shows the total amount of variance, the original variable shares with all the other variables included in the analysis. It is the squared multiple correlation of the variable as predicted from the factors (Tabachnick & Fidell, 2013).The individual factors with their factor loadings (from the obtained pattern

matrix), together with the Cronbach's alpha and the item communalities are tabulated below.

Factor 1 -Relationship Marketing Practices

Factor 1 was assigned the name 'relationship marketing practices' as it can be seen from the table that these items pertain to relationship marketing. This factor explains 39% of the total variance and consists of 10 items with statistically significant factor loadings ranging from .513 to .821. It comprises of items that identify the different aspects of the relationships- trust, commitment and communication, which exist between the exchange partners in the given context and the customer relationship orientation of the firm.

It is interesting to note from Table 2 that some of the items used to assess the social media practices have loaded on to this construct. These items are marked (in bold) in the Table 2. It appears therefore, that social media is effectively used by the ICT firms in India to improve customer relations by constant interaction with customers through online networks (SM7), to encourage customers to participate in live and interactive discussion forums (SM5) and to increase efficiency in developing products due to online customer interaction at various stages of product development (SM7). The results show that social media practices are prevalent in the ICT firms in India and are efficiently used by these firms to build relationships through effective communication. The number of items that contribute to the underlying relationship marketing construct is ten with a Cronbach's alpha of .920. High communality values (>.6) indicate that the variables are adequately accounted for by the factor solution.

Table 2 *Relationship Marketing Practices*

Items	Factor Loadings	Communalities
RM10: We are committed to establish long term relationship with our customers	.821	.764
RM2: In our organization, customer relationships are considered to be a valuable asset	.750	.779
RM8: We fulfill all obligations and promises we make with customers.	.692	.689
SM7: Our constant interaction with customers through online networks has improved our customer relations.	.666	.635
SM5: We encourage our customers to participate in live and interactive discussion forums on our website.	.656	.642
RM5: We can rely on our firm to keep the promises that it makes to the customers	.646	.692
RM3: Our senior management emphasizes the importance of customer relationships	.633	.609
SM6: Our firm has increased efficiency in developing products due to online customer interaction at various stages of product development.	.602	.610
RM6: In our relationship with customers, our firm can be trusted at all times	.587	.685
RM9: We make significant investments (in terms of time and resources) in building relationship with our customers	.513	.638

Factor 2 -Product Practices

Factor 2 is labeled product practices as the variables loaded on to this factor consists of items which describe the product practices of ICT firms (See table 3). This factor explains 7% of the total variance and contains seven items with statistically significant factor loadings (ranging from .511 to .825). Communality values greater than .6 indicate the sufficient contribution of these items in explaining the variance in the factor structure.

As can be seen in Table 3, ICT firms: develop common product platforms, which are then adapted to customer requirements; deliver unique products and services in which they specialize; provide technologically superior products to cater to the niche market on which they focus; provide a pool of highly trained personnel expertise; understand the customer requirements and develop a conceptual design, which is then presented to the customer for feedback; provide extensive customer support from product conceptualization to product delivery and are always ahead of competitors with respect to product innovation. The Cronbach's alpha of these seven items is .91.

Table 3 *Product Practices*

Items	Factor Loadings	Communalities
PT1: We develop a common product platform, which is then adapted to customer requirements	.825	.580
PT7: We provide exclusive products and services, by being a specialist shop	.809	.634
PT9: We provide niche based technological superiority	.739	.745
PT8: We provide a pool of highly trained personnel expertise	.723	.668
PT2: We understand the customer requirements and develop a conceptual design, which is then presented to the customer for feedback	.587	.640
PT10:We provide extensive customer support from product conceptualization to product delivery	.568	.693
PT11: Our firm is always ahead of competitors with respect to product innovation	.511	.604

Factor 3 - Distribution Practices

Factor 3 is aptly assigned the name 'distribution practices' as the items that have loaded on to this factor explain the distribution practices adopted by the ICT firms in India (See Table 4). This factor comprises four items, each measuring the different distribution practices relevant to the industry. This factor accounts for 5% of the total variance with factor loadings ranging from .567 to .821 and a Cronbach's alpha value of .847. As can be seen in Table 4, communalities are higher than .5 indicating that these variables sufficiently explain this factor.

Factor 4 - Promotional Practices

Factor 4 is labeled as 'promotional practices' and is presented in Table 5. This factor consists of five items each appropriately explaining the construct and accounts for 4% of the total variance. The factor loadings range from .456 to .760 and their communalities range from .490 to .709. These high values indicate that these items are statistically significant. The value of the Cronbach's alpha is .840.

Table 4 *Distribution Practices*

Items	Factor Loadings	Communalities
DT4: Our firm gained distribution rights through joint ventures, as a result of the collaborative development of a new technology	.821	.773
DT2: We engage certified resellers to distribute our products and Services	.794	.730
DT6: Our firm relies on distributors to deliver pre-packaged solutions	.687	.707
DT3: Our firm forms tactical alliances with smaller firms to help put a "complete product" for our customers	.567	.509

Table 5 *Promotional Practices*

Items	Factor Loadings	Communalities
PM6: Using customer references in our advertisements	.760	.655
PM3: Inviting customers to leadership forums	.699	.709
PM4: Print advertising	.690	.490
PM5: Online advertising	.612	.623
PM2: Organizing industry conferences	.456	.605

Factor 5 - Market Research Practices

This is another factor that has yielded interesting results in the analysis. Looking at the items loaded under this construct (see Table 6), it is interesting to note the use of social media for market research purposes (marked in bold). Along with using external contractors for market research, firms are found to use social media to know about the reviews of their firm's products and services and to know about competitors' products and services. Also market opportunities are actively searched for in user generated blogs in online communities. Hence this factor is assigned the name 'market research practices'. The factor loadings on this factor range from .387 to .793 with the Cronbach's alpha value of .806. Statistically significant communalities (.515 to .662) represent the proportion of variance accounted for by the factor solution for each variable.

Table 6 *Market Research Practices*

Items	Factor Loadings	Communalities
SM3: Our firm constantly monitors social networking sites for reviews of our products and services.	.793	.662
SM2: Our firm actively searches for market opportunities n user generated blogs in online communities.	.644	.656
MR2: Use external contractors to do market research for us	.513	.515
SM4: In our firm, we constantly check online networks to Know about competitor's products and services.	.387	.545

Factor 6 – Social Media Practices

Factor 6 is labeled 'Social Media practices'. This new construct introduced in this research, is loaded as a separate factor (see Table 7), with items that explain the purposes of using social media by the ICT firms, for reasons other than for relationship marketing and market research. Social media is found to be used by the firms to explain the products and services to customers, to facilitate endorsement of the firm's products and services by customers and to build the firm's reputation. The factor loadings range from .566 to .813, communalities range from .629 to .728 and the value of the Cronbach's alpha is .825. These high factor loadings and high communalities indicate the statistical significance of all the variables that has loaded on to this factor.

Table 7 *Social Media Practices*

Items	Factor Loadings	Communalities
SM10: We use our online networks to facilitate endorsement of our product/services by customers	.813	.728
SM9: We use our online networks to explain our products/services to customers.	.666	.629
SM11: Our engagement in the online social networks helps build our firm's reputation.	.566	.660

Factor 7 - Segmentation Practices

Factor 7 is assigned the name 'segmentation practices' (Table 8) as the items contained in this factor identify the segmentation practices of the ICT firms in India. The segmentation practices were found to be need based – need for packaged solutions, need for value solutions and need for customized solutions. The factor loadings range from .501 to .611 and are statistically significant. The high value for Cronbach's alpha (.765) indicates that these items are internally consistent. The communalities of the variables are .510 (SEG6), .611 (SEG5) and .520 (SEG4).

Table 8 *Segmentation Practices*

Items	Factor Loadings	Communalities
SG6: Based on customers who need packaged solutions	.611	.510
SG5: Based on customers who need value solutions	.610	.611
SG4: Based on customers who need customised solutions	.511	.520

Factor 8 - Targeting Practices

Factor 8 is labeled 'targeting practices' and is comprised of two items that describes the targeting practices of the ICT firms in India (Table 9). As can be seen in Table 9, the factor loadings are .727 and .561; and the communalities are .691 and .617. These high values confirm that these measures are statistically significant and the variables are adequately explained by the factor solution. The Cronbach's alpha value is .752.

Table 9 *Targeting Practices*

Items	Factor Loadings	Communalities
TGT5: Potential customers whose needs we are aware of	.727	.691
TGT4: Customers with the potential of giving us long term or downstream profit	.561	.617

Factor 9 - Pricing Practices

Factor 9, presented in Table 10, contains three items that measure those variables which influence the pricing strategies of ICT firms in India. Hence this factor is aptly assigned the name 'pricing practices'. High values for factor loadings (.539 to .587) and communalities (.651 to .732) indicate that these variables are statistically significant. The Cronbach's alpha value for this factor is .853.

Table 10 *Pricing Practices*

Items	Factor Loadings	Communalities
PRI1: The cost incurred	.587	.732
PRI3: Uniqueness of the products and services	.552	.651
PRI2: Profit objectives of the company	.539	.713

Factor 10 - Positioning Practices

Factor 10 is labeled 'positioning practices'. Three items are loaded on to this factor (see Table 11) and it explains 2% of the variance. The factor loadings and communalities are statistically significant as they range from .506 to .631 and .650 to .784 respectively. The cronbach's alpha value is .871indicating that these items are internally consistent. The ICT firms' positioning strategies are based on the extensive after sales support, the reputation within the industry and the winner image in the market.

Table 11 *Positioning Practices*

Items	Factor loadings	Communalities
PG2: Has a reputation within the industry	.631	.784
PG3: Has the winner image in the market	.536	.650
PG1: Provides extensive after sales support	.506	.689

From the results obtained from the exploratory factor analysis, composite measures for individual constructs will be obtained and used for further analysis to examine the influence of these independent variables on customer satisfaction (mediating variable) and firm performance (dependent variable).

5. Discussions and Implications

In this study, exploratory factor analysis has identified ten underlying constructs, which explain the strategic marketing practices that are adopted by the ICT firms in India. High values for the factor loadings and the communalities indicate that the

items extracted were statistically significant. Table 12 presents the summary of the factor analysis, including the name of the factors extracted, the number of items in each factor and their Cronbach's alpha values. Cronbach's alpha values greater than .750 confirm that these measures are reliable measures of the individual underlying constructs.

Extraction of these internally consistent measures facilitates the computing of composite variables that can be used in further analysis as recommended by Hair et al (2010). Exploratory factor analysis also facilitated data reduction in this study.

Table 12 *Summary of the Factor Analysis*

	Factors	Number of Items	Cronbach's Alpha
1	Relationship Marketing Practices	10	.920
2	Product Practices	7	.910
3	Distribution Practices	4	.847
4	Promotional Practices	5	.840
5	Market Research Practices	4	.806
6	Social Media Practices	3	.825
7	Segmentation Practices	3	.765
8	Targeting Practices	2	.752
9	Pricing Practices	3	.853
10	Positioning Practices	3	.871

This paper integrates the relevant theoretical underpinnings to understand the marketing practices of ICT firms. A new but a relevant construct, social media, was introduced and reliable measures were developed for this construct. The use of social media for marketing purposes in ICT firms in India has been identified in this study. Also the significant contribution of social media for relationship marketing and market research has been explored. Practitioners can encourage their firms to engage diligently on social media as it is evident that social media supports marketing practices in firms in the ICT sector.

6. Conclusion

The overall contribution of this research study to literature is the identification of the industry-specific marketing practices adopted by the ICT firms. The ICT sector is a priority sector and is clearly of growing importance in many economies. Given the importance of the ICT sector for the economy, insights into their marketing practices enhances the understanding of their contribution to firm performance. The study assumes significance in that it identifies and documents those marketing practices that are adopted by the ICT firms in India. It provides a basis to explore the influence of the marketing practices of the ICT firms on firm performance. This research also highlights the need to explore more fully, the contribution of social media practices to marketing strategy of firms in the ICT sector, not only in India, but also in other countries where ICT contributes significantly to their respective economies.

7. References

1. Anderson, E., & Weitz, B. (1992). "The Use of Pledges to build and Sustain Commitment in Distribution Channels", "Journal of Marketing Research (JMR)", 29 (1), 18-34.
2. Anderson, J. C., & Narus, J. A. (1984). "A Model of the Distributor's Perspective of Distributor-Manufacturer Working Relationships", "Journal of Marketing", 48 (4), 62-74.
3. Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994)."Customer Satisfaction, Market Share, and Profitability: Findings from Sweden", "Journal of Marketing", 58(3), 53.
4. Anna, C. B., & Osborne, J. W. (2005). "Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis". "Practical Assessment. Research and Evaluation", 10(7), 1-9.
5. Arnett, D. B., & Badrinarayanan, V. (2005). "Enhancing Customer-Needs--Driven CRM Strategies: Core Selling Teams, Knowledge Management Competence, and Relationship Marketing Competence" "Journal of Personal Selling & Sales Management", 25(4), 329-343.
6. Bartels, R. (1951). Influences on the Development Of Marketing Thought, 1900-1923. [Article]. Journal of Marketing, 16(1), 1-17.
7. Berry, L. L. (2002). Relationship Marketing of Services- Perspectives from 1983 and 2000. [Article]. Journal of Relationship Marketing, 1(1), 59.
8. Boussouara, M., & Deakins, D. (1999). Market based learning, entrepreneurship and the HT firm. International Journal of Entrepreneurial Behaviour & Research, 5(4), 204-223.
9. Braunsberger, K., Wybenga, H., & Gates, R. (2007). A comparison of reliability between telephone and web-based surveys. Journal of Business Research, 60(7), 758-764. doi: 10.1016/j.jbusres.2007.02.015
10. Brennan, R., & Croft, R. (2012). The use of social media in B2B marketing and branding: An exploratory study. [Article]. Journal of Customer Behaviour, 11(2), 101-115.
11. Clark, B. H. (1999). Marketing Performance Measures: History and Interrelationships. [Article]. Journal of Marketing Management, 15(8), 711-732.
12. Constantinides, E. (2006). The Marketing Mix Revisited: Towards the 21st Century Marketing. [Article]. Journal of Marketing Management, 22(3/4), 407-438.
13. Coviello, N. E., & Brodie, R. J. (2000). An Investigation of Marketing Practice by Firm Size. [Article]. Journal of Business Venturing, 15(5/6), 523.
14. Coviello, N. E., Brodie, R. J., Danaher, P. J., & Johnston, W. J. (2002). How Firms Relate to Their Markets: An Empirical Examination of Contemporary Marketing Practices. [Article]. Journal of Marketing, 66(3), 33-46.
15. Day, G. S., & Wensley, R. (1983). Marketing Theory with Strategic Orientation. [Article]. Journal of Marketing, 47(4), 79-89.
16. Doyle, P., & Wong, V. (1998). Marketing and competitive performance: An empirical study. [Article]. European Journal of Marketing, 32(5/6), 397-535.
17. Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing Buyer-Seller Relationships. [Article]. Journal of Marketing, 51(2), 11-27.

18. Evans, J. R., & Mathur, A. (2005). The value of online surveys. Internet Research-Electronic Networking Applications and Policy, 15(2), 195-219. doi: 10.1108/10662204510590360
19. Fruchter, G. E., & Sigué, S. P. (2005). Transactions vs. Relationships: What Should the Company Emphasize? [Article]. Journal of Service Research, 8(1), 18-36. doi: 10.1177/1094670505276629
20. Gardner, D. M., Johnson, F., Lee, M., & Wilkinson, I. (2000). A contingency approach to marketing HT products. [Article]. European Journal of Marketing, 34(9/10), 1053.
21. Gerhard, D., Brem, A., Baccarella, C., & Voigt, K.-I. (2011). Innovation Management and Marketing in the High-Tech Sector: A Content Analysis of Advertisements. [Article]. International Journal of Management, 28(1), 330-348.
22. Gongming, Q., & Lee, L. (2003). Profitability of Small- And Medium-Sized Enterprises in High-Tech Industries: The Case of the Biotechnology Industry. [Article]. Strategic Management Journal, 24(9), 881-887. doi: 10.1002/smj.344
23. Grønholdt, L., & Martensen, A. (2006). Key Marketing Performance Measures. [Article]. Marketing Review, 6(3), 243-252.
24. Grönroos, C. (1994). Quo Vadis, Marketing? Toward a Relationship Marketing Paradigm. [Article]. Journal of Marketing Management, 10(5), 347-360.
25. Gummesson, E. (2002). Practical value of adequate marketing management theory. [Article]. European Journal of Marketing, 36(3), 325-349.
26. Gupta, S., & Zeithaml, V. (2006). Customer Metrics and Their Impact on Financial Performance. [Article]. Marketing Science, 25(6), 718-739.
27. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). Multivariate data analysis (7th Ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.
28. Harker, M. J., & Egan, J. (2006). The Past, Present and Future of Relationship Marketing. [Article]. Journal of Marketing Management, 22(1/2), 215-242.
29. Hills, S. B., & Sarin, S. (2003). From Market Driven to Market Driving: An Alternate Paradigm for Marketing in HT Industries. [Article]. Journal of Marketing Theory & Practice, 11(3), 13-24.
30. Ho, R. (2006). Handbook of univariate and multivariate data analysis and interpretation with SPSS Boca Raton Chapman & Hall/CRC.
31. Jarvis, R., Curran, J., Kitching, J., & Lightfoot, G. (2000). The use of quantitative and qualitative criteria in the measurement of performance in small firms. Journal of small business and enterprise development, 7(2), 123-134.
32. Kaynak, H., & Hartley, J. L. (2005). Exploring quality management practices and high tech firm performance. [Article]. Journal of HT Management Research, 16(2), 255-272. doi: 10.1016/j.hitech.2005.10.000
33. Kozinets, R. V., de Valck, K., Wojnicki, A. C., & Wilner, S. J. S. (2010). Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities. [Article]. Journal of Marketing, 74(2), 71-89. doi: 10.1509/jmkg.74.2.71
34. Knight, G. (2000). Entrepreneurship and Marketing Strategy: The SME under Globalization. [Article]. Journal of International Marketing, 8(2), 12-32.
35. Kotler, P., & Keller, K. L. (2009). Marketing management. (13th Ed.). Upper Saddle River, N.J. Pearson Prentice Hall.

36. Lawson-Body, A., Willoughby, L., & Logossah, K. (2010). Developing an Instrument for Measuring E-Commerce Dimensions. [Article]. Journal of Computer Information Systems, 51(2), 2-13.
37. Lehtinen, U. (2011). Combining mix and relationship marketing. [Article]. Marketing Review, 11(2), 117-136. doi: 10.1362/146934711x589363
38. Lewin, J. E., & Johnston, W. J. (1997). Relationship Marketing Theory in Practice: A Case Study. [Article]. Journal of Business Research, 39(1), 23-31.
39. Locke, S. (2004). ICT Adoption and SME Growth in New Zealand. [Article]. Journal of American Academy of Business, Cambridge, 4(1/2), 93-102.
40. MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. Psychometric Methods, 14(1), 84-99.
41. Malhotra, N. K. (2010). Marketing research: an applied orientation (6th Ed.). Upper Saddle River, N.J.; London: Pearson Education.
42. Martin-Consuegra, D., Molina, A., & Esteban, Á. (2007). An integrated model of price, satisfaction and loyalty: an empirical analysis in the service sector. [Article]. Journal of Product & Brand Management, 16(7), 459-468.
43. McDaniel, C. D., & Gates, R. H. (2010). Marketing Research Essentials (7th Ed.). Hoboken, N.J: John Wiley & Sons.
44. McDaniel, S. W., & Kolari, J. W. (1987). Marketing Strategy Implications of the Miles and Snow Strategic Typology. [Article]. Journal of Marketing, 51(4), 19-30.
45. Ministry of Statistics & Programme Implementation, Government of India. (2010, April). Value Addition & Employment Generation in the ICT Sector in India. Retrieved October 30, 2012 from http://mospi.nic.in/mospi_new/upload/val_add_ict_21june11.pdf.
46. Mohr, J., Slater, S., & Sengupta, S. (2010). Marketing of High-Technology products and innovations. (3rd Ed.). New Jersey: Upper Saddle River, Prentice Hall.
47. Mohr, J. J., Fisher, R. J., & Nevin, J. R. (1996). Collaborative communication in interfirm relationships: Moderating effects of integration and. [Article]. Journal of Marketing, 60(3), 103.
48. Mohr, J. J., & Shooshtari, N. H. (2003). Introduction to the Special Issue: Marketing of High-Technology Products and Innovations. [Article]. Journal of Marketing Theory & Practice, 11(3), 1-12.
49. Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships between Providers and Users of Market Research: The Dynamics of Trust Within and Between Organizations. [Article]. Journal of Marketing Research (JMR), 29(3), 314-328.
50. Naudé, P., & Holland, C. P. (2004). The role of information and communications technology in transforming marketing theory and practice. [Article]. Journal of Business & Industrial Marketing, 19(3), 165-166.
51. Pels, J.K., & Saren, M. (2009). Do we really understand business marketing? Getting beyond the RM and BM matrimony. [Article]. Journal of Business & Industrial Marketing, 24(5/6), 322-336. doi: 10.1108/08858620910966219
52. Pett, M., Lackey, N., & Sullivan, J. (2003). Making sense of factor analysis: a practical guide to understanding factor analysis for instrument development in health care research: Thousand Oaks, CA: Sage Publication, Inc.

53. Peytchev, A., Conrad, F. G., Couper, M. P., & Tourangeau, R. (2010). Increasing Respondents' Use of Definitions in Web Surveys. Journal of Official Statistics, 26(4), 633-650.
54. Ranaweera, C., & Prabhu, J. (2003). On the relative importance of customer satisfaction and trust as determinants of customer retention and positive word of mouth. [Article]. Journal of Targeting, Measurement & Analysis for Marketing, 12(1), 82-90.
55. Rust, R. T., Moorman, C., & Dickson, P. R. (2002). Getting Return on Quality: Revenue Expansion, Cost Reduction, or Both? [Article]. Journal of Marketing, 66(4), 7-24.
56. Sheth, J. N., & Parvatiyar, A. (2002). Evolving Relationship Marketing into a Discipline. [Article]. Journal of Relationship Marketing, 1(1), 3.
57. Smith, R. E., & Wright, W. F. (2004). Determinants of Customer Loyalty and Financial Performance. [Article]. Journal of Management Accounting Research, 16, 183-205.
58. Sui-Hua, Y. (2007). An Empirical Investigation on the Economic Consequences of Customer Satisfaction. [Article]. Total Quality Management & Business Excellence, 18(5), 555-569. doi: 10.1080/14783360701240493
59. Tabachnick, B. G., & Fidel, L. S. (2013). Using multivariate statistics (6th Ed.). Boston: Pearson Education.
60. Tamilia, R. D. (2011). "Reflections on the history of marketing thought and theory development", "Marketing Theory, 11 (4), 507-512. doi: 10.1177/1470593111418808
61. Traynor, K., & Traynor, S. (2004). "A comparison of marketing approaches used by high-tech firms: 1985 versus 2001", "Industrial Marketing Management", 33(5), 457-461. doi: 10.1016/j.indmarman.2003.08.013
62. Uslay, C., Malhotra, N. K., & Citrin, A. V. (2004). Unique marketing challenges at the frontiers of technology: an integrated perspective. [Article]. International Journal of Technology Management, 28(1), 8-30.
63. Vargo, S. L., & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. [Article]. Journal of Marketing, 68(1), 1-17.
64. Webster, J. F. E. (1992). The changing role of marketing in the corporation. [Article]. Journal of Marketing, 56(4), 1.
65. Wilkie, W. L., & Moore, E. S. (2003). Scholarly Research in Marketing: Exploring the "4 Eras" of Thought Development. [Article]. Journal of Public Policy & Marketing, 22(2), 116-146.
66. Wind, Y., & Robertson, T. S. (1983). Marketing Strategy: New Directions for Theory and Research. [Article]. Journal of Marketing, 47(2), 12.
67. Winter, J., & Dodou, D. (2012). Factor recovery by principal axis factoring and maximum likelihood factor analysis as a function of factor pattern and sample size. Journal of Applied Statistics, 39(4), 695-710.
68. Wolff, J. A., & Pett, T. L. (2006). Small-Firm Performance: Modeling the Role of Product and Process Improvements. [Article]. Journal of Small Business Management, 44(2), 268-284. doi: 10.1111/j.1540-627X.2006.00167.x
69. Yadav, N., Swami, S., & Pal, P. (2006). HT Marketing: Conceptualization and Case Study. [Article]. Vikalpa: The Journal for Decision Makers, 31(2), 57-74.

70. Yeung, M. C. H., Lee Chew, G., & Ennew, C. T. (2002). Customer satisfaction and profitability: A reappraisal of the nature of the relationship. [Article]. Journal of Targeting, Measurement & Analysis for Marketing, 11(1), 24.
71. Zikmund, W. G., & Babin, B. J. (2012). Marketing research (10th Ed.). Australia; [Mason, Ohio]: South-Western/Cengage Learning.