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Strategies for E-Commerce Platform Adoption in the Manufacturing Sector in Western India

Neeraj Parikh
Walden University

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Walden University

College of Management and Technology

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Neeraj Parikh

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Review Committee

Dr. Jorge Gaytan, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Mohamad Hammoud, Committee Member, Doctor of Business Administration
Faculty

Dr. Matthew Gonzalez, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2016

Abstract

Strategies for E-Commerce Platform Adoption in the Manufacturing Sector in Western

India

by

Neeraj Parikh

PMP[®], Project Management Institute, 2006

MBA, Keller Graduate School of Management, 2004

BS, DeVry University, 2003

AS, ITT Technical Institute, 2002

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

July 2016

Abstract

While 95% of Indian SME leaders have not adopted an e-commerce platform, the few SME leaders having adopted such platforms reported 64% higher sales and 65% higher profits. The purpose of this multi-case study, guided by the diffusion of innovation (DOI) theory, was to explore the strategies that Indian SME leaders used to adopt e-commerce platforms to expand their businesses. Data for this study emerged from conducting face-to-face, semistructured interviews with 3 SME leaders who operated in the manufacturing industry in western India. The data analysis process included validating, coding, interpreting, and summarizing data and generating themes. Methodological triangulation of data obtained from interviews, observations, and document review resulted in 4 major themes: leveraging the marketplace model, dealing with tedious governmental requirements, finding well-trained employees, and handling fraudulent product returns. The study results may contribute to positive social change in western India by generating greater employment opportunities and increasing e-commerce literacy among online shoppers. Wider e-commerce adoption by SME leaders can generate a large number of employment opportunities for people living in western India resulting in a better quality of life. Increased use of e-commerce activities among online shoppers can result in higher awareness about online frauds, identity theft, malware threats, and overall online security.

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Dedication

I would like to dedicate this doctoral study to my autistic son, Shiv. Realizing that you cannot attend a traditional school, I have embarked on a journey to achieve the highest academic degree possible on your behalf. I also dedicate this award to Neal, my younger son, who has seen me go through the highs and lows of this educational journey. It is my sincere hope that my journey inspires you to believe in yourself, fight against all odds, and achieve anything you desire in your life. I would like to thank my parents for all of their sacrifices. Finally, to my wife, Ulupi - without your steadfast support this study would not have been possible.

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I would like to thank my chair, Dr. Jorge Gaytan, who was always willing to assist, advise, inspire, and encourage me throughout my doctoral journey. I truly have learned many things from our interactions. I intend to incorporate that knowledge in my personal and professional lives. I also want to offer my gratitude to Dr. Mohamad S. Hammoud and Dr. Matthew Gonzales, who provided valuable feedback to improve the quality of my study. I am forever thankful for your mentorship.

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Section 1: Foundation of the Study

Small- and medium-sized enterprises (SME) play a major role in the economic development of many countries (Huq & Khan, 2013; Suresh & Mohideen, 2012). SME contribute to these nations' economies by creating job opportunities, advancing trade and investment sectors, and increasing output (Huq & Khan, 2013). Ubiquity and expansion of the Internet is changing how company leaders market and sell their products globally (Meltzer, 2014). Capitalizing on Internet technologies, e-commerce is changing the fundamentals of business activities (S. Khan, Liang, & Shahzad, 2014). While leaders of many companies have embraced e-commerce technology as part of their business models, the impact on SME leaders of adopting this technology has received minimal attention by researchers (Yang, Xun, & He, 2015).

The focus of this case study was to explore e-commerce platform adoption barriers faced by SME leaders in the manufacturing industry from western India, with the objective of finding ways to overcome those obstacles. As a foundation for this study, this section includes information on the background of the problem; problem statement; purpose statement; nature of the study; research questions; conceptual framework; definition of terms; assumptions, limitations, and delimitations; and significance of the study. Section 1 also includes a comprehensive review of literature on the advantages of e-commerce, barriers to e-commerce platform adoption, customers' inhibitions relative to e-commerce platform adoption, and use of online marketing strategies to promote a business.

Background of the Problem

The Internet serves as a connection to the marketplace for more than 3 billion people and businesses worldwide (International Telecommunication Union [ITU], 2015). E-commerce is also responsible for 3% of global gross domestic product (GDP) (Gnanasambandam et al., 2012). Globalization, increased international trade, continued customer demands, and fast-paced technological advances have become important factors for success by SME in developing countries (Gupta & Gupta, 2014). With the advent of the Internet, organizations are discovering opportunities to expand the reach of their businesses, improve operating efficiency, and deliver their products quickly (Gautam, 2012). People can buy products and services through e-commerce sites without going to a physical store (Jahanshahi, Zhang, & Brem, 2013). SME leaders should understand the increasing role of technology in everyday business practices to align their business processes with technological innovations (Gautam, 2012).

Although India will compete with other developing economies in the future, as of 2013, 95% of Indian SME lack a website (Federation of Indian Chambers of Commerce and Industry [FICCI], 2013). In general, leaders of small organizations are constrained by limited capital, labor, and resources to improve their technology (Mathur, Mittal, & Dangayach, 2012). Indian SME leaders also face the challenges of lower Internet penetration, digital literacy, and consumer trust related issues (Gnanasambandam et al., 2012). Successful adoption of e-commerce platforms is important to study because web-enabled SME earn more revenues, generate higher profits, and reach a broader customer base compared to the SME that lack a web presence (FICCI, 2013).

Problem Statement

While 95% of Indian SME leaders have not adopted an e-commerce platform (FICCI, 2013), the few SME leaders having adopted such platforms reported 64% higher sales and 65% higher profits (FICCI, 2013). With access to the fourth largest Internet user-base in the world, e-commerce in India is poised to go from \$10 billion in 2012 to \$260 billion by 2024 (Das, 2012). The general business problem was that without the adoption of an e-commerce platform, some Indian SME leaders were limiting themselves from generating greater revenue and expanding their customer base. The specific business problem was that some Indian SME business leaders in the manufacturing sector lacked strategies to adopt e-commerce platforms to expand their businesses.

Purpose Statement

The purpose of this qualitative multi-case study was to explore the strategies that Indian SME business leaders in the manufacturing sector used to adopt e-commerce platforms to expand their businesses. The population for this study consisted of manufacturing Indian SME business leaders having adopted e-commerce platforms in their businesses in the State of Gujarat, which is one of the most rapidly growing states in western India (Debroy, Bhandari, & Aiyar, 2013). The social impact of this study may include increases in innovation, employment, awareness of global trends, and living standards. Indian SME business leaders in the manufacturing sector may also realize increased profits, which may enable them to increase their charitable contributions to the local communities in the State of Gujarat.

Nature of the Study

There are three methods for conducting research: (a) qualitative, (b) quantitative, and (c) mixed methods (Yin, 2014). Qualitative research methodology highlights the significance of phenomena based on individuals' perspectives (Kaczynski, Salmona, & Smith, 2014). A qualitative research method is appropriate when the variables are unknown (Parker, 2012), which was the case for this study. The purpose of this study was not to use numerical data or test any statistical hypotheses. Mixed-methods research methodology combines qualitative and quantitative research methods (Östlund et al., 2011; Thomas & Magilvy, 2011; Venkatesh, Brown, & Bala, 2013). Therefore, mixed-methods research methodology was not appropriate because there was no need to use numerical data or test any hypotheses. Qualitative research methodology, in contrast, involves using multiple techniques to collect data, such as personal interviews, observations, focus groups, and review of documentation (Bryman, 2012; Gross, Blue-Banning, Turnbull, & Francis, 2015). Therefore, I selected qualitative research methodology for this study.

The qualitative research method offers a number of design approaches, such as narrative research, phenomenology, ethnography, and case study (Hamilton & Corbett-Whittier, 2012; Petty, Thomson, & Stew, 2012). Researchers using the case study research design approach can collect data impartially from real-life scenarios (Amerson, 2011; Yin, 2014) and ask questions related to *how* and *what* in nature (Yin, 2014). Therefore, I selected the case study research design approach for this study. Because grounded theory focuses on the development of new theories from the data collected by

the researcher (Bryman, 2012; Petty et al., 2012), I eliminated the possibility of using grounded theory for this study. Because the purpose of this research was not to develop new theories, and grounded theory focuses on the development of new theories from the data collected by the researcher (Bryman, 2012; Petty et al., 2012), the possibility of using grounded theory did not fit the purpose of this study. Petty et al. (2012) suggested that researchers use an ethnographic design to explain the social pattern of a group, which was not suitable for this study. A phenomenology research method requires the researcher to interpret the participants' beliefs and stories (Pringle, Hendry, & McLafferty, 2011), which was also not suitable for this study.

Research Question

The overarching research question revolved around the business leaders of SME in western India who have successfully adopted e-commerce platforms as part of their business model. Consequently, the overarching research question of this study was as follows: *What strategies do Indian SME leaders in the manufacturing sector use to adopt e-commerce platforms to expand their businesses?* I asked interview questions to obtain information that might assist me in finding an answer to the overarching research question, as recommended by several scholars (Jacob & Furgerson, 2012).

Interview Questions

The interview questions, also listed in Appendix A, were as follows:

1. What made you adopt an e-commerce platform in your organization?
2. What experience did you have before launching your e-commerce platform?

3. What is the extent to which you adopted the use of an e-commerce platform in your business?
4. How did you support your staff when deploying the e-commerce platform?
5. How would you describe the challenges you experienced during the initial adoption of an e-commerce platform?
6. What deployment strategies did you use to successfully adopt an e-commerce platform?
7. What advice would you offer to other SME business leaders who may be in the midst of adopting e-commerce platforms?
8. What issues, if any, are stopping you today from adopting a higher level of e-commerce platform?
9. What strategic considerations did you use before adopting e-commerce platforms as part of your business?
10. How did you determine the requirements for adopting an e-commerce platform in your organization?
11. What changes did you make in your everyday business processes to adopt an e-commerce platform?
12. What impact did external parameters (i.e., end-user awareness, government intervention) have on e-commerce platform adoption?

Conceptual Framework

I used diffusion of innovation (DOI) theory for this study. Rogers (1961, 2003) introduced DOI theory to explain how innovation propagates over time among a segment of society. Expanding on DOI theory, Rogers (2003) suggested that individual character, internal attributes of organization structure, and external qualities of the organization are predecessors of innovativeness in an organization.

DOI theory is a popular model used when studying information technology (IT) innovation adoption (Hameed, Counsell, & Swift, 2012). Stieninger et al. (2014) confirmed that DOI theory is well suited to explain the outcome of technology adoption within an organization. IT can have a positive effect on an organization's productivity, if technology adoption is clearly understood, widely spread, and consistently used within the organization (Stieninger et al., 2014). Hameed et al. (2012) also stated that the technology adoption life cycle should be a part of the overall organizational processes to achieve optimum results.

DOI theory is applicable to this study because it provided a framework for highlighting SME business leaders' perceptions of e-commerce platform adoption initiatives and insights into the SME business leaders' likelihood of technology adoption. DOI theory suggests that newer technology, such as e-commerce, has a greater chance of adoption by a population if it offers more appealing advantages than traditional technology (Rogers, 2003). SME business leaders in the manufacturing sector in western India may be able to apply DOI theory to assess the internal and external characteristics of their businesses and adopt e-commerce platforms to expand their businesses.

Definition of Terms

Diffusion of innovation (DOI) model. The DOI model is a component of the information management framework, which aids in understanding how well business leaders accept or reject an innovation, based on relative advantage, compatibility, complexity, and trialability of the innovation (Shamsudeen, Zainab, Noor, Noorhidawati, & Mehwish, 2013).

E-commerce. E-commerce is an abbreviation for electronic commerce, which involves buying and selling of goods and services over the World Wide Web (Khan & Uzma, 2013).

E-commerce platform. An e-commerce platform enables business leaders to reinvent their organizational processes to deliver their products and services efficiently using the Internet (Das, 2012).

E-tailers. E-tailers is an abbreviation of electronic retailers; retailers who sell their products exclusively on the Internet (Pei, Paswan, & Yan, 2014).

Gross domestic product (GDP). GDP is the measure of total value of goods and services produced by a nation in a specified interval of time (Pritzker, Doms, & Moyer, 2014).

Information technology (IT). IT refers to the use of computer software to sustain business practices by electronic means (Bengtsson & Agerfalk, 2011).

Micro, Small, and Medium Enterprises Development (MSMED) Act. MSMED act refers to a legislation enacted with the intent of recognizing “the concept of ‘enterprise’ to include both manufacturing and services sector besides, defining the medium

enterprises, setting up a Board for developing policy frameworks and indicating a procurement policy” (Ministry of Micro, Small, & Medium Enterprises [MSME], 2015a, p. i).

Small and medium enterprises (SME). Although the definition of SME varies by nation and region (Seyal et al., 2013; Sharma, 2014), SME are privately owned business with relatively few employees and low sales volume (Huq & Khan, 2013).

Assumptions, Limitations, and Delimitations

This study was specific to manufacturing SME leaders in western India. The study consisted of 3 participants who successfully adopted e-commerce into their businesses. This section includes a discussion of the assumptions, limitations, and delimitations used in this study.

Assumptions

Assumptions are factors considered essential to the research but the researcher has no intention to verify or control them (Simon, 2011). This study included the following assumptions: (a) study participants were honest and provided truthful answers to the study interview questions thereby highlighting the strategies to help successfully adopt e-commerce platforms by SME business leaders in western India; (b) participants’ experiences provided adequate insights to support the goal of the study; (c) literature review supported the goals of the study; and (d) the outcome of this study may provide helpful insights to SME business leaders in western India on e-commerce platform adoption.

Limitations

Limitations are potential drawbacks outside the researchers' influence (Lees et al., 2012). The following limitations surfaced while conducting this study: (a) a consistent level of demographic factors influence on study participants because they were from the same geographic region, (b) the worldview of study participants, (c) lack of a tangible outcome of the study, and (d) inability to generalize the findings to a broader population.

Delimitations

Delimitations are factors that constrain the scope of the study (Yang & Kenagy, 2011). For this study, delimitations included (a) the small number of SME business leaders within the manufacturing sector in western India, (b) transferability of the results of the study to SME business leaders outside of western India, and (c) applicability of the outcomes of the study to other SME leaders across India.

Significance of the Study

This study is significant because it may provide insights to leaders of governmental agencies, e-commerce consultants, and e-commerce application vendors responsible for addressing the needs of SME business leaders adopting e-commerce platforms. Although the e-commerce market in India grew by 88% in 2013 to \$16 billion, businesses in India represent only 0.5% of the online market, compared to the global average of 4%, indicating vast potential for future growth (Prasad & Miranda, 2014). To enhance the widespread adoption of e-commerce in the business community, e-commerce vendors may consider helping SME business leaders to integrate e-commerce platforms into SME business leaders' existing applications (Ghobakhloo, Arias-Aranda, & Benitez-

Amado, 2011). While Ghobakhloo et al. reported that SME business leaders are likely to embrace e-commerce platforms if they receive training and support from e-commerce vendors, no-cost training by governmental agencies might encourage SME business leaders to adopt e-commerce platforms.

Reduction of Gaps

E-commerce plays a crucial role in sustainability and growth of the SME segment (S. Khan et al., 2014). Many researchers addressed the barriers to e-commerce platform adoption in India and other countries. Few studies addressed successful adoption of e-commerce platforms by SME business leaders in India. This study may help other SME business leaders who have unsuccessfully attempted to adopt e-commerce platforms in their businesses. The purpose of this qualitative multi-case study was to explore the strategies that Indian SME business leaders in the manufacturing sector have used to adopt e-commerce platforms to expand their businesses.

SME business leaders, considering taking advantage of development opportunities in international markets, should have an e-commerce platform adoption strategy and clear organizational goals (S. Khan et al., 2014). Despite the many perceived benefits of e-commerce platform adoption, the adoption rates are low among SME business leaders in India (Prasad & Miranda, 2014). Information in this study, based on interviews with SME business leaders in western India who have successfully adopted e-commerce platforms, may fill a gap by providing a perspective different from SME business leaders who have not incorporated e-commerce platforms into their businesses.

Implications for Social Change

The purpose of this qualitative multi-case study is to explore the strategies that that Indian SME business leaders need to adopt e-commerce platforms to expand their businesses. Technology plays a crucial role in the ability of an organization to compete globally (Luqman & Abdullah, 2011). With the emergence of e-business, companies can market to potential customers around the world (Luqman & Abdullah, 2011) and simultaneously create new jobs and contribute to society. Social change is the cornerstone of Walden University's mission. Technology adoption can help SME business leaders improve the internal processes of their organization, compete globally, communicate efficiently, and strengthen their supply chain (Kannabiran & Dharmalingam, 2012). As a result, Indian SME business leaders may produce increased profits, which may translate into the creation of more jobs and the generation of more charitable contributions to the local community.

Review of the Professional and Academic Literature

Conducting a literature review provides the researcher with an understanding of previous studies, potential opportunities for additional research, and drawbacks in relation to the research topic (Gil-Salom & Soler-Monreal, 2014; Macfarlane et al., 2015). The systematic literature review helps lower the barriers between the researcher and the practitioners in the community, leading to more collaborative efforts for future studies (Borrego, Foster, & Froyd, 2014).

To prepare the literature review, I searched peer-reviewed journal articles, government reports, government-sponsored reports, articles from professional

publications, conference proceedings, and past dissertations available through Walden University website. I also reviewed several databases, including ProQuest Central, SAGE Premier, and EBSCO. Some of the main keywords I used in the literature review and annotated bibliography search were *SME*, *DOI model*, *e-commerce platform adoption*, *barriers to e-commerce adoption*, *e-commerce in India*, and *manufacturing SME in India*.

I focused the following literature review on the overarching research question: *What strategies do Indian SME business leaders in the manufacturing sector use to adopt e-commerce platforms to expand their businesses?* Further breakdown of this section into various subtopics includes the importance of e-commerce, barriers to adoption of Internet technologies, consumer inhibitions to e-commerce, and e-commerce marketing strategies. The literature review provided additional and interrelated information crystallizing the importance of the research question.

This study includes a total of 249 references, out of which 215 (i.e., 86%) are peer-reviewed. The literature review section contains 89% peer-reviewed references. A total of 87% of the references used in this study were published within 5 years of receiving approval from Walden University's chief academic officer (CAO) for graduation.

Diffusion of Innovations Theory

The purpose of this study was to explore the strategies that Indian SME leaders in the manufacturing sector use to adopt e-commerce platforms to expand their businesses. While there are multiple theories available to understand the adoption of innovative technologies (Woodward et al., 2014), I used Rogers' (1995, 2003) DOI theory in this

literature review to understand how innovative technological trends can gradually spread throughout the society. Rogers (2003) stressed that an innovative idea does not have to be new to the marketplace; it just has to be new for an organization or an individual. More specifically, an organization or an individual may be familiar with a specific innovation with or without having a positive or negative opinion about adopting or rejecting it (Rogers, 2003). Woodward et al. ranked DOI theory at the highest position for three main reasons: (a) DOI theory provides broader focus compared to other models and theories; (b) DOI theory is focused on the socio-cultural context and, therefore, more emphasis is given to cultural values, common practices, and beliefs; and (c) DOI theory is an effective conceptual tool to analyze complex social norms.

Hameed et al. (2012) considered DOI theory as one of the most popular theories that can help explain the innovative technology adoption behavior of an individual or an organization. Hameed et al. (2012) confirmed the use of the DOI model for evaluating technological innovation inside an organization. Using the DOI model, Kucukemiroglu and Kara (2015) established a linear relationship between an organization's social presence and consumer trust, leading to increased word-of-mouth communication.

Rogers (2003) defined DOI theory as a process where an innovation is adopted by a broader segment of the society over a given period. Rogers (2003) classified DOI theory into four categories, including (a) innovation, (b) communication channels, (c) adoption time, and (d) a social system. DOI theory also consists of several technological factors, including (a) comparative advantage, (b) complexity, (c) capability, (d) compatibility, and (e) trailability that may affect SME leaders' decision to adopt new

technology (S. Khan et al., 2014; Sila & Dobni, 2012). Rogers (2003) believed that while these five attributes are conceptually unique, they are interrelated. These attributes will expedite changes related to technological adoption inside an organization (Rogers, 2003). Rogers (1995) outlined five stages for an adoption to spread in the marketplace: knowledge, persuasion, decision, implementation, and confirmation.

People measure comparative advantage by the degree to which other individuals perceive a new innovative technology compared to an existing technology (Conrad, 2013). Economic profitability, cheaper cost, and increased social prestige may contribute to a higher comparative advantage (Rogers, 1995). Improved productivity, portability, reachability, and efficient time management were some of the advantages that fueled the adoption of cellular phones (Rogers, 1995). Relative advantage, identified as a ratio between anticipated gains and implementation cost, is a prime indicator of the rate of adoption (Rogers, 2003). Overall, relative advantage is directly proportional to adoption rate (Fallan, 2015).

Complexity is the degree to which individuals perceive an innovative technology adoption as difficult to use (Conrad, 2013; Rogers, 1995). Fallan (2015) highlighted that an adopter's view and assessment of an innovation is critical before wide-scale adoption inside an organization. In other words, perceived complexity of innovation can be inversely proportion to adoption intention. Cellular phones worked similar to landline telephones; therefore, cellular phones were not complex to use for end users, which is similar to DOI theory premises (Rogers, 1995). For this study, while the Internet can be easy to use for most, older users may find navigating the Internet both confusing and

intimidating (Lawson-Body et al., 2014). Conrad (2013) discovered that users are willing to use new technologies when complexity is low; however, increasing the adoption rate for complex technologies will require additional incentives before users are willing to adopt. While Prasad and Miranda (2014) indicated that the adoption of new technologies is critical for a nation, Stieninger, Nedbal, Wetzlinger, Wagner, and Erskine (2014) pointed out the linear relationship between the level of complexity and the technology adoption period. It takes a longer period for businesses to adapt to new technologies, particularly when business leaders perceive technology implementation as a complex task.

Compatibility is the degree where individuals perceive an innovation co-exist with legacy systems or previous experiences (Rogers, 2003). Innovation's incompatibility with organizational culture can have a negative impact on the adoption of technology (Rogers, 1995). In other words, any idea that is perceived to be compatible with society's norms has a higher chance of adoption by the people of that society compared to the idea that is not compatible (Fallan, 2015). The cellular network works with the landline network, allowing anyone from either network to talk to each other (Rogers, 1995). Knowing that older technology can co-exist with new technology will allow speeding up the adoption of new technology.

Trialability is the degree to which an innovative technology will be available for a limited period (Conrad, 2013; Fallan, 2015, Rogers, 2003). Rogers (1995) believed that new ideas tested on the installment plan have a better chance of adoption compared to ideas with no visibility. In other words, perceived trialability is proportionally linked with

adoption of innovation (Fallan, 2015). Someone can borrow a friend's cellular phone for a trial and experience all of its features before deciding to purchase that cellular phone. This will allow someone to experience an innovative technology without a long-term commitment. Conrad (2013) discovered that while promoting the adoption of complex technology, offering a trail before implementation is helpful.

DOI theory is versatile enough to apply in different industries all around the world. For example, Imroz (2013) used DOI theory to explain the diffusion process and the adoption of a life-saving healthcare treatment in Bangladesh. Stieninger et al. (2014) applied DOI theory to assess the adoption of cloud computing among organizations. Using DOI theory, Pozzebon, Mackrell, and Nielsen (2014) gained a better understanding of inhabitations around software adoption in Australia's cotton industry. Fallan (2015) applied DOI theory to corporate social responsibility and found that the innovation adoption rate varies by the size of the organization and the environment in which it operates.

Similarly, using DOI theory, Taiwanese business leaders implemented information technology to improve customer satisfaction and establish a profitable business model (Su & Fu, 2015). Focused on the capability attribute of the DOI theory, Su and Fu argued that newly developed information and communication technologies (ICT) for Taiwanese retailers can help integrate additional technologies, allowing business leaders to become flexible, adoptable, and resilient. Right after independence in 1947, political leaders in India realized the importance of adopting innovative

technologies for the country's self-reliance and advancement and, therefore, took additional steps to create various departments and agencies (Kumar, 2012).

Between 2003 and 2012, Leggott et al. (2015) conducted a study applying the DOI theory to understand the adoption of an alternative procedure while performing arthroscopic knee surgery. During this period, the adoption rate of the alternative procedure jumped from 10% to 70% (Leggott et al., 2015). Leggott et al. credited this growth to several of the DOI theory's characteristics, including safety records, quality of the treatment, patients' trust in their physicians, healthcare provider's organizational structure, and technological changes.

After understanding the effect of e-commerce and technology adoption related to supply chain management in Pakistan, another developing country, S. Khan et al. (2014) discovered that SME leaders that use technologies into their businesses have generated higher average sales compared to those businesses without technology adoption. When organizational leaders adopt and successfully implement technological solutions in their businesses, the results can include increased efficiency, faster response time, improved customer service, and higher cost saving benefitting their business partners, vendors, and their customers (S. Khan et al., 2014).

Lowson-Body, Willoughby, Illia, and Lee (2014) applied DOI theory to understand veterans' adoption of government benefits via the Internet. To receive their benefits from the Department of Veteran Affairs (VA), each veteran needed to complete forms and register on the website (Lawson-Body et al., 2014). Many study participants found this transition to be complicated. Rogers (2003) defined complexity as the degree

to which end users perceive an innovation. Lawson-Body et al. found that younger veterans adopt e-services quicker than older veterans. Addressing complexity and risk attributes of DOI theory, Lawson-Body suggested increasing computer and web navigation training, publishing privacy policies on the websites, and providing successful transaction assurance.

DOI theory plays a critical role in increasing adoption intention (Ainin, Parveen, Moghavvemi, Jaafar, & Mohd Shuib, 2015). Adoption includes both phases, such as initiation and implementation, as well as levels, which includes organizational, environmental, individual, and technological (Rossi et al., 2012). Business leaders are most likely to adopt new technology when they understand the compatibility of the new application with their existing environment (Ainin et al., 2015). Successful adoption of new technology is dependent upon a successful interaction between humans and technology (Lee & Kozar, 2012). Focused on the compatibility attribute of the DOI theory, Ainin et al. linked Facebook usage to positive organizational performance. Ainin et al. also revealed how SME leaders can gain financial and non-financial advantages by incorporating Facebook as part of their marketing and customer service strategy.

DOI theory deals with how, why, and at what speed new ideas that are technology fueled can spread through cultures, and affect organizations (Sedem, Twum, Hayfron-Acquah, & Panford, 2015). Along the same line, Pozzebon et al. (2014) concluded that social processes and structures play a critical role affecting an innovation's diffusion. At the same time, S. Khan et al. (2014) and Rossi et al. (2012) stressed the importance of the government's role in preparing the needed infrastructure to fuel the adoption of

technology within a country. While there is a plethora of research outlining the impact of technology on an organization's performance, little research has been conducted on how technology innovations are adopted by individuals inside an organization (Conrad, 2013). There is not enough research indicating how to spot the deficiencies on existing technology implementations and how to successfully implement an adequate solution for continued organizational productivity (Conrad, 2013).

Innovation inside an organization can be a complex process because while some people will invite the changes, others may oppose them (Sedem et al., 2015). Therefore, the success of innovativeness inside an organization depends upon the leaders' characteristics and organizational structure. Rossi et al. (2012) believed that effectively designed employee training programs allow organizational leaders to reduce implementation challenges. Conrad (2013) stressed that willingness to adopt fast-changing innovative technologies is crucial for organizations' existence. S. Khan et al. (2014) also supported the adoption of innovative technologies to better serve an organization's customer base. Business leaders at the Ghana Health Services, a leading healthcare provider in Ghana, implemented e-healthcare solution using ICT and cloud computing.

Looking at the pace of technology deployment, Sedem et al. (2015) concluded that individuals can be grouped into five categories based on their innovativeness. These categories include innovators, early adopters, early majority, late majority, and laggards (Doyle, Garrett, & Currie, 2014; Sedem et al., 2015). This finding mirrors Rogers' (2003) *S-shape curve* where a sharp vertical line suggests a faster adoption rate and a flat line

represents a slower adoption rate. While, innovators are the first to adopt new technology, the laggards are the last ones to adopt new technology (Rogers, 2003). Early adopters play a significant role in promoting innovations in the industry (Thakur & Srivastava, 2015). Innovation adoption is an indication of why some businesses remain small while others grow and prosper (Rogers, 2003). Conrad (2013) concluded that relative advantage, complexity, and trialability of technologies determine potential adopters' willingness to use.

Doyle et al. (2014) used DOI theory to understand the adoption of mobile devices in nursing education to effectively manage a vast amount of clinical information, improve patient care, and augment decision-making abilities. Using DOI theory, Rogers (2003) pointed out three phases for an organization to adopt innovation: initial phase, decision, and implementation. Rossi, Russo, and Succi (2012) stressed the significance of DOI in an organizational context and expanded the parameters of innovation decision processes when selecting products, services, and technologies. During the initial phase, company leaders are preparing for changes they need to apply to implement new technologies. Decision phase involves selecting the solution identified during the initial phase. Finally, implementation phase includes all the activities needed to successfully implement the chosen innovative technologies. Doyle et al. (2014) concluded that while technology adoption can be challenging, successful implementation can improve organizational processes and productivity.

Zhu (2014) applied DOI theory to understand innovation and diffusion in the Chinese government. Innovation in public administration includes planning and

executing large-scale projects, services, or policies to accomplish new goals, reform existing technologies, and improve the lives of citizens (Zhu, 2014). Innovation in the public sector can spread both horizontally, when central government mandates local governments to adopt innovation, and vertically, when one local government voluntarily adopts innovative practices from another local government (Zhu, 2014). Zhu also pointed out that an innovation from central government can be rapidly adopted by the local governments but the overall implementation may not be successful everywhere.

Knowing that innovative companies can contribute to a healthy economy, Hausman and Johnston (2014) wanted to find out if a country with innovative companies suffers less economic problems during global economic recession. Hausman and Johnston (2014) recommended several internal and external actions to stimulate innovation. Internal recommendations include (a) establish well-coordinated organizational management efforts, (b) deliver advanced employee training, (c) gain improved access to information technology, (d) adopt well-calculated strategies for increasing risk taking, and (e) establish enhanced employee retention plans. External recommendations to promote innovation include (a) establish higher incentives to ensure continued innovation, (b) set clear patent application process, (c) develop simpler intellectual properties laws, (d) establish easier access to educational programs involving math and science, (e) develop new courses that fuel innovation, and (f) offer tax-credits to employers encouraging their employees to upgrade their skills (Hausman & Johnston, 2014).

In the following literature review, I used supporting and contrasting theories to explore the strategies that Indian SME leaders in the manufacturing sector have used to adopt e-commerce platforms to expand their sales and profits. The overall objective of this review is to understand the trends in the recent past involving e-commerce platform adoption and offer suggestions on how to address each barrier. A higher rate of e-commerce platform adoption can lead to higher revenue, lower operating costs, wider customer reach, and increased jobs. The outcome of this review will provide the framework for the data analysis cycle.

Manufacturing SME in India

SME are the cornerstone of the manufacturing sector in India as well as in developed countries (Mathur et al., 2012; Suresh & Mohideen, 2012). Indian SME generate 45% of the industrial output, contribute 40% of exports, employ 60 million people, create 1.3 million jobs per year, and produce over 8,000 products for domestic and foreign markets per year (Mathur et al., 2012). Overall, Indian SME leaders employ an estimated 100 million workers (FICCI, 2013; Suresh & Mohideen, 2012). Overall, SME contribute over 8% to the GDP of India (FICCI, 2013; Suresh & Mohideen, 2012). Realizing the importance of SME to the economic success of the country, members of the Indian government drafted legislation to promote and develop the growth of this segment (MSME, 2012).

Over time, the Indian SME segment has generated employment, enhanced entrepreneurship, distributed national income, and increased exports from the country (Suresh & Mohideen, 2012). As of 2015, staff of the MSME organize and coordinate all

government initiatives related to development of the SME sector (Jayaram, Dixit, & Motwani, 2014; MSME, 2012; Sharma, 2014). The MSME Development Act of 2006 created two types of SME: manufacturing and service enterprises (Sharma, 2014). These categories of enterprise are further divided into micro, small, and medium enterprises.

Industry in India consists of 5% large business and 95% SME (Jammulamadaka, 2013). As one of the most rapidly growing economies in the world, India (Leavy, 2014) is gaining reputation as the home of companies known for designing and manufacturing innovative products (Garengo et al., 2012; Jayaram et al., 2014; Saboo, Garza-Reyes, Er, & Kumar, 2014). More specifically, India is emerging as a new manufacturing center, and leaders of many of the companies located in India are eager to increase the value of their products and services by streamlining their operations (Panizzolo, Garengo, Sharma, & Gore, 2012). The manufacturing sector has substantial influence on prices, interest rates, and exchange rates in India (FICCI, 2013).

Many scholars have explained the concept of manufacturing SME in India. In summary, developed countries around the world perceive Indian industries as an important part of their strategic value chain. The SME segment contributes to the industrial production, exports, and employment of the nation. SME represent a vital segment of the Indian economy; therefore, it is in the best interest of Indian government to protect and promote SME-related development.

Importance of E-Commerce

Electronic commerce is commonly known as e-commerce (Khan & Uzma, 2013; Prasad & Miranda, 2014; Vasvi, Radhakrishna, & Seema, 2014). E-commerce facilitates

buying and selling of products and services on the Internet with the help of interconnected computers (Das, 2012; Khan & Uzma, 2013; Prasad & Miranda, 2014; Vasvi et al., 2014). Commercialization of the Internet and advances in ICT highlight are advantageous to e-commerce (Jahanshahi et al., 2013). Despite the dot-com disaster in early 2000, many SME leaders are investing in e-commerce related technologies (T. Yang et al., 2015). Since 2010, the e-commerce marketplace has grown 400% (Vasvi et al., 2014).

With two-way communication, real-time access to information, and internal and external connectivity, e-commerce infrastructure is significantly different compared to a traditional IT infrastructure (T. Yang et al., 2015). Business leaders using e-commerce have achieved faster execution of business transactions, offering cost savings, reducing operating costs, and enabling contact with a broader customer base (Awiagah, Kang, & Lim, 2015; Chiliya, Chikandiwa, & Afolabi, 2011; Senarathna, Warren, Yeoh, & Salzman, 2014). Business leaders are using e-commerce to form global supply chains resulting in increased international trade (Awiagah et al., 2015).

E-commerce platform adoption can be helpful to businesses of all sizes. While e-commerce adoption can help increase profits for larger organizations, e-commerce can also benefit smaller companies by empowering them to reach a broader customer base and bolster customer relationships (Hung, Chang, Lin, & Hsiao, 2014; Meltzer, 2014). Business individuals consider e-commerce innovative because it enables business leaders of SME to gain unprecedented opportunities to compete globally and integrate uniquely with their suppliers, customers, and stakeholders (Chiliya et al., 2011). Customers using

e-commerce sites gain numerous advantages including access to a variety of products at reduced rates, the convenience of round-the-clock shopping, enhanced physical privacy, and improved customer service (Das, 2012).

E-commerce has interconnected the global marketplace, reduced the delivery time for goods, and increased the transaction speed, improving customer service (Vasvi et al., 2014). The cost of doing business on the Internet is cheaper compared to traditional outlets (Das, 2012). In summary, e-commerce has changed the way businesses sell their products and services and how consumers buy their products (Awiagah et al., 2015). SME leaders can capitalize on e-commerce if they generate niche products and services that cater to geographically scattered markets (S. Khan et al., 2014).

While new opportunities await Internet-enabled organizations if leaders of these organizations are willing to accept uncertainty and risk (Leavy, 2014; Meltzer, 2014), it is critical to understand that there is no relationship between investments made in e-commerce technologies and organizational profitability (T. Yang et al., 2015). SME leaders must address in advance issues related to e-commerce deployment, including product quality, refund policy, payment methods, and on-time delivery for a smooth customer experience (Das, 2012). Organizations willing to make investments to revamp their business processes and to commit to employee training programs usually outperform organizations that spend on e-commerce technologies only (T. Yang et al., 2015).

E-commerce is rapidly growing in India (Das, 2012; Vasvi et al., 2014). Indian entrepreneurs are preparing themselves for the global marketplace by engaging in

innovations and new business models because the Indian economy offers many lucrative opportunities to e-tailers (Khare, Khare, & Singh, 2012). The Indian government's liberal policies, between 2000 and 2010, fueled investments and advancements from global corporations (Khare & Sadachar, 2014). Subsequently, FDI in B2B commerce is at a historical high in India (Prasad & Miranda, 2014). Experts estimated that the number of Internet users would rise from 140 million, in 2014, to 376 million, in 2015, leading to an unprecedented growth in the e-commerce eco-system (Prasad & Miranda, 2014).

The State of Gujarat was the focus of this study. With a rich history and culture, Gujarat is home to over 60 million people (Institute of Small Enterprises and Development [ISED], 2013). Gujarat, because it is one of the most developed and industrialized states of India, has been a preferred destination for investors since 2000 (ISED, 2013). Although Gujarat accounts for only 5% of the national population, industry in Gujarat accounts for 7.2% of the GDP in India (ISED, 2013). Gujarat has a strategic role in the national agenda of manufacturing growth and export competitiveness, as outlined by the national manufacturing policy. Manufacturing SME leaders in India can benefit by adopting e-commerce in their corporate sales and marketing strategies.

E-commerce consists of three main categories: (a) business to business (B2B), (b) business to consumer (B2C), and (c) consumer to consumer [C2C] (Suresh & Mohideen, 2012). While C2C e-commerce is in its infancy stage, the use of B2C e-commerce is increasing, led by the B2B e-commerce, which has experienced 30% annual growth (Suresh & Mohideen, 2012). Figure 1 highlights a typical B2B e-commerce model where transactions take place between two businesses. The B2B e-commerce model offers

multiple benefits to companies, including managing their inventory effectively, responding to customers' demands rapidly, eliminating costs involving paperwork, and purchasing raw materials and supplies at lower prices (Khare & Sadachar, 2014).

Using the B2B model, companies can conduct business with another organization in variety of ways. Traditional web, e-procurement, broker, and industry-vertical sites are some of the ways companies can view other organizations' inventory, obtain pricing, bid for products, pay for the products, and monitor the end-to-end logistics process (Khare & Sadachar, 2014).

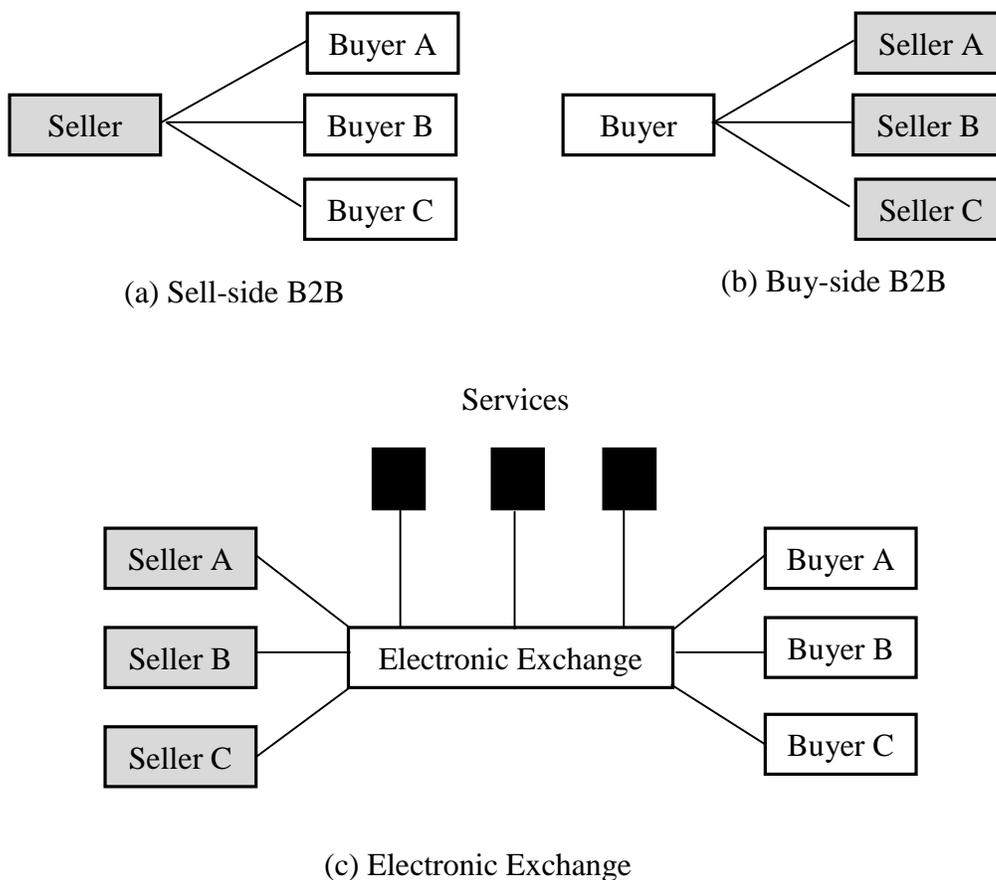


Figure 1. Various transactional models in B2B e-commerce. Adapted from “Affiliate marketing in tourism determinants of consumer trust” by V. Kumar and G. Raheja, 2012, *International Journal of Computers & Technology*, 3, p.447. Copyright 2012 by IJCT. Adapted with permission.

In the B2C e-commerce model, businesses sell their products or services directly to their customers through the Internet (Kumar & Raheja, 2012). Attributes including flexibility, speed, and cost savings attract customers to use. E-commerce to gain popularity in the marketplace. As outlined in Figure 2, the B2C model removes intermediate layers from the traditional distribution channel and facilitates direct interaction between the manufacturer and consumer (Kumar & Raheja, 2012). Manufacturer are able to provide direct service to the customer at a reduced price, while establishing long term relationships through using B2C model of e-commerce technology.

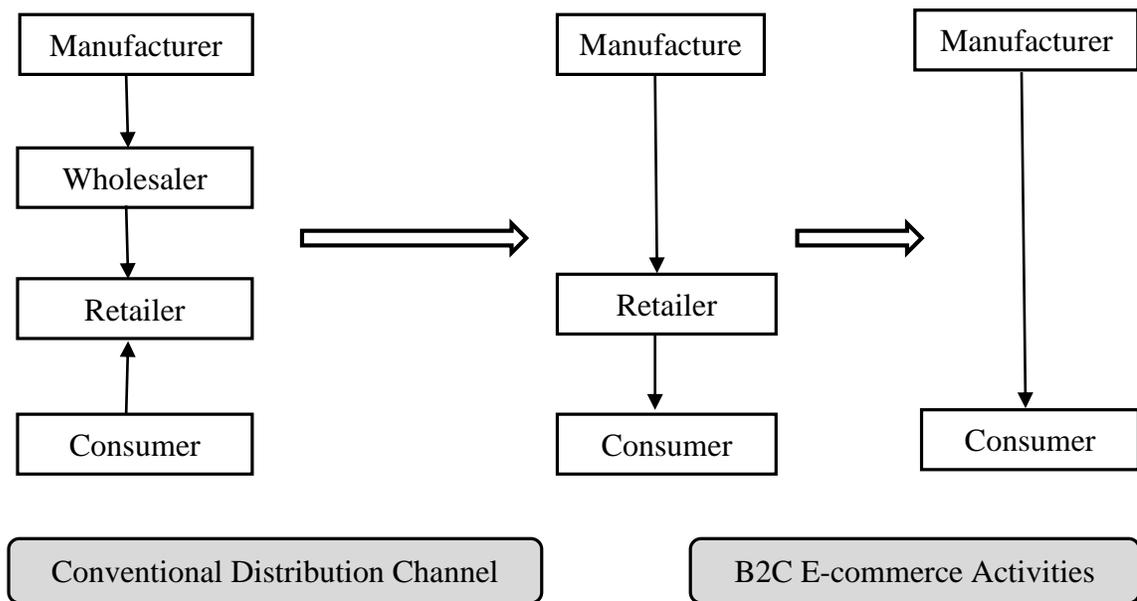


Figure 2. Comparing traditional distribution channel with B2C model. Adapted from “Affiliate marketing in tourism determinants of consumer trust” by V. Kumar and G. Raheja, 2012, *International Journal of Computers & Technology*, 3, p.448. Copyright 2012 by IJCT.

Indian SME business leaders can embrace an e-commerce revolution by starting an Internet-based company, modifying existing strategies to conduct business using the Internet, or establishing a partnership with another large organization (MSME, 2012). E-commerce has changed every traditional aspect of retail and global business strategies (Awiagah et al., 2015). Outside of facilitating electronic financial transactions, e-commerce also enables (a) digital content downloading, (b) paperless information exchanging, (c) stock trading, (d) product sourcing, (e) lading, and (f) collaborating (Khan & Uzma, 2013). Therefore, business leaders cannot afford to ignore the influence of e-commerce on the marketplace because their competitors are adopting e-commerce platforms into their businesses (Awiagah et al., 2015; Chen, Pan, & Ouyang, 2014).

As the reach of e-commerce companies begins to expand beyond a small geographic location, business leaders of traditional businesses are left with no option but to respond by creating their own e-commerce platforms (Chen et al., 2014). Finally, e-commerce is playing a crucial role in helping to narrow the digital divide between the developing and developed countries by improving access to information, awareness, and aptitude (Awiagah et al., 2015).

This section highlighted the importance of e-commerce as presented by different scholars. Business leaders can sell products and services on a global platform circumventing many traditional obstacles by using e-commerce Internet technologies. Leaders of businesses of every size must adopt e-commerce platforms to expand their businesses and to remain viable. Indian SME leaders are poised to take advantage of e-commerce and elevate their businesses to the next level. While Indian SME leaders can

be agile enough to take advantage of growing e-commerce trends, adequate planning and strategy must be in place first.

Barriers to Adoption of Internet Technologies by Indian SME Leaders

While e-commerce offers numerous advantages, adoption of e-commerce by Indian SME leaders has been limited, perhaps because SME have attributes that are different from those of large organizations (Franco, Santos, Ramalho, & Nunes, 2014). While most SME business leaders realize the importance of e-commerce, the majority of them are not able to reconfigure their daily business activities to incorporate e-commerce successfully (Chen et al., 2014). A joint study conducted by FICCI and MSME (2012) revealed that while SME in the U.S. and U.K. contributed 40-60% toward the GDP of their respective nations, Indian SME contributed only 20% of the GDP. This gap represents an untapped potential for Indian SME business leaders for sales and profit expansion, if adequate funding is available for SME support (FICCI & MSME, 2012).

In most SME, the primary decision maker is the owner of the business; therefore, the capacity of the organization to select and deploy technological solutions is directly related to the knowledge and experience of SME leaders, which may not be adequate (Duan, Deng, & Corbit, 2012; Mpofu & Watkins-Mathys, 2011). Similarly, SME business leaders who are technology-savvy may be skilled in specific products, but may lack an overall business background (Gupta & Gupta, 2014). Finally, as the primary decision makers, leaders of SME are burdened by day-to-day operational tasks and, therefore, are unable to manage every aspect of their business effectively (Kannabiran & Dharmalingam, 2012).

Historically, large organizations benefit more from deployment of advanced technologies than SME (Kannabiran & Dharmalingam, 2012). This advantage comes from a shift towards organizations that can operate at a lower cost and generate higher profit (Seyal, Rahman, & Abid, 2013). Mpofu and Watkins-Mathys (2011) confirmed there is a direct relationship between inadequate technical and managerial capacity in a SME leaders and technology adoption by SME leaders. Kannabiran and Dharmalingam (2012) pointed out that SME business leaders are often unaware of the financial and technical assistance available from their government for e-commerce platform adoption. Mpofu and Watkins-Mathys noted that the government could create a favorable business climate to promote the use of e-commerce and to enhance SME leaders' business processes. In the end, technological, organizational, and environmental variables play critical roles in determining the use of technology adoption level of SME leaders (Sila & Dobni, 2012).

Despite the potential benefits, the adoption of advanced IT products and services by Indian SME leaders is low (Kannabiran & Dharmalingam, 2012). Lack of financing to advance business growth continues to be a major roadblock to SME expansion across many countries (Naidu & Chand, 2012). SME business leaders from Fiji and Tonga (Naidu & Chand, 2012), Bangladesh (Chowdhury, Azam, & Islam, 2013), Nigeria (Ogbo & Nwachukwu, 2012), Morocco (Sefiani & Bown, 2013), and India (Nagaraju & Vani, 2013) reported that lending practices of financial institutions can dramatically change overall business conditions of SME. Mpofu and Watkins-Mathys (2011) pointed out that

lack of sufficient Internet infrastructure played a key role fueling e-commerce growth in Botswana and Zimbabwe, as compared to other countries in southern Africa.

Ahmed and Aguilar (2013) compared Internet infrastructure to physical infrastructure, such as roads, and sociopolitical infrastructure, such as justice systems. J. H. Khan, Namul, Hossain, and Rahmatullah (2012) confirmed that the lack of employee training, bureaucracy, and inadequate infrastructure facilities could curtail expansion of SME. Sefiani and Bown (2013) cited higher interest rates and increased collateral requirements as primary reasons for inadequate SME leaders' success in Morocco. Chiliya et al. (2011) found that employees' reluctance and customers' acceptance to use new technology can have a direct impact on the success rate for technology adoption in organizations. Mpofo and Watkins-Mathys (2011) revealed that intermittent electric supply was a major obstacle delaying widespread adoption of e-commerce in South Africa, Botswana, and Zimbabwe.

Similar to SME leaders from around the world, Indian SME leaders also lack necessary support from government, financial institutions, and other corporations (Chirputkar, Saxena, & Tarkas, 2015; SME Chamber of India, n.d.). More specifically, Indian SME leaders encounter numerous challenges, including (a) absence of adequate and timely financing, which contributes to insufficient capital; (b) limited technical expertise; (c) unavailability of modern technology; (d) ineffective marketing strategy; (e) inability to identify new markets; (f) constraints on modernization; (g) lack of reasonably priced skilled labor; and (h) lack of capability to effectively deal with bureaucracy

(Chiliya et al., 2011; FICCI & MSME, 2012; Kannabiran & Dharmalingam, 2012; S. Khan et al., 2014; Naidu & Chand, 2012).

MSME is one of the more complicated segments of the Indian economy (ISED, 2013). Varied policies, priorities, and opinions hamper the development of effective public policies to benefit the Indian SME community (ISED, 2013). The Indian government leaders are unable to undertake action with sufficient speed to provide timely help to SME in crisis (ISED, 2013). It is clear that SME leaders play an important role in the economic stability of India (SME Chamber of India, n.d.), but an understanding of SME business leaders' managerial strategy is key to understanding SME expansion and success (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013).

While e-commerce adoption offers economic benefits, government officials, regulatory agencies, logistics providers, payment processors, and other supporting agencies need to come together to provide support to the infrastructure of Indian SME (KPMG & Internet and Mobile Association of India [IAMAI], 2013). Income tax policies and complicated inter-state taxation rules make compliance difficult for Indian SME leaders trying to incorporate e-commerce into their businesses (Ernst & Young, 2012; KPMG & IAMAI, 2013). By streamlining the Indian tax code, understanding e-commerce taxation rules in other countries, and combining multiple taxes into a single goods and services tax (GST), SME leaders may be able to more easily comply with regulatory requirements while focusing on their core business (KPMG & IAMAI, 2013).

While Indian businesses lead development of IT and IT-enabled services globally, wide-scale technology adoption inside India has been slow (Kumar, 2012). Government

officials have proposed several pieces of government legislation with the objective of stimulating the adoption of technology in the country. Despite support, most of the proposals failed to pass once government funding was halted (Kumar, 2012).

This section included various scholars' findings regarding the barriers to technology adoption. Indian SME leaders face several technological, organizational, and economical factors governing the adoption of advanced technology. Forced to remain focused on their day-to-day activities, SME leaders have little time to devote to technology adoption and innovation. Indian SME leaders are constrained by limited capital, low penetration of technology, limited technical expertise, scarce government support, and other logistical barriers.

Consumer Inhibitions to E-Commerce

E-commerce continues to dominate the marketplace as the number of online business transactions steadily increases (Sebastianelli & Tamimi, 2013). E-commerce and e-shopping have changed the retail industry by creating additional opportunities for businesses to attract customers from around the world (Gautam, 2012). The U.S. Census Bureau (2013) estimated retail e-commerce sales for the first quarter of 2013 at \$61.2 billion, 15.2% greater than the previous year. Customers may gain convenient access to purchase products from multiple sources at cheaper prices through online shopping (Thakur & Srivastava, 2015). Consumers in developed countries are more likely to engage in e-commerce compared to developing countries (Khare & Sadachar, 2014).

Trust is a facilitator of human interactions, allowing people to perform business transactions (Bavarsad, Rahimi, & Mennatyan, 2013; McNeish, 2015; Toufaily, Souiden,

& Ladhari, 2013). As with in-person transactions, trust plays a major role in online purchases (Bavarsad et al., 2013; Ellahi & Bokhari, 2013; Gregori, Daniele, & Altinay, 2014). Trustworthiness of a website varies among customers, as they combine their individual perceptions with their interpretation of the website's return policy (Bavarsad et al., 2013).

Lack of trust in an e-tailer appears to be the biggest roadblock for consumers' willingness to use e-commerce (Bavarsad et al., 2013; Brengman & Karimov, 2012; Harris & Dennis, 2011). Pei et al. (2014) concluded that e-tailers need to remain focused on establishing a trusted brand for their business as one of their differentiating strategies in the marketplace.

Online shopping involves interacting with technology in the virtual world compared to interacting with other humans in a physical store (Kim & Lennon, 2013). Therefore, nontechnical issues play a greater role in e-commerce platform adoption than do technical issues (Bavarsad et al., 2013; Šimičević, Jaković, & Ježovita, 2013). Figure 3 highlights the four core determinants of trust, including (a) website design, (b) notion of trust, (c) e-tailer reputation, and (d) third-party endorsements (Gregori et al., 2014).

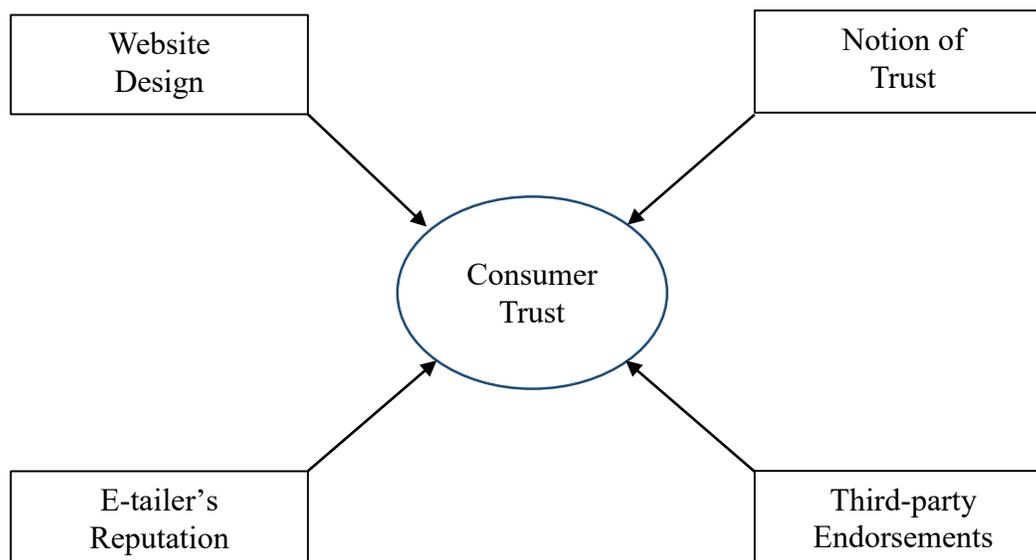


Figure 3. Core attributes determining the trust. Adapted from “Affiliate marketing in tourism determinants of consumer trust” by N. Gregori, R. Daniele, and L. Altinay, 2014, *Journal of Travel Research*, 53, p. 205. Copyright 2013 by SAGE Publications.

al., 2013), which includes one-dimension, two-dimension, and revolutionary dimension (Bavarsad et al., 2013). One-dimensional state includes notion of trust and distrust as a whole; two-dimensional state includes various stages of trust and distrust; and revolutionary dimension suggests human mind’s ability to change the notion of trust over time (Bavarsad et al., 2013). In essence, existence of trust minimizes the unexpected behavior between two parties (Kesharwani & Bisht, 2012).

The Internet can be a risky medium in which to conduct commerce for several reasons, including: (a) absence of physical contact between a buyer and a seller, (b) inability to examine products before purchase, (c) doubts about the overall transaction, and (d) lack of consumer trust in the electronic retailer (Bregman & Karimov, 2012; Thakur & Srivastava, 2015). Individuals can view online shopping as neutral,

unemotional, and anonymous because of the absence of human interactions and socialization (Toufaily et al., 2013).

Khare and Rakesh (2011) and Thakur and Srivastava (2015) explained that online shoppers look for focused, accurate, attractive, value-driven, and easily accessible content; consequently, online retailers who fail to provide seamless web experiences can lose their customers. Third-party validation in the form of digital certificates is a great way for e-tailers to gain credibility among concerned online shoppers (Karimov, Brengman, & Van Hove, 2011; Tamimi & Sebastianelli, 2015). Bavarsad et al. (2013) also underscored the importance of e-tailers' need to invest in robust and responsive infrastructure that can provide accurate and timely information in the shortest time possible to their perspective online shoppers. Bock, Lee, Kuan, and Kim (2012) pointed out that clearly stated product-return policies, especially tilted in the favor of the customers, will help e-tailers establish and gain consumer trust in the long run. Pei et al. (2014) concluded that e-tailers' return policy shapes customer perception of fairness and reconfirms customers' purchase intentions.

E-commerce platform adoption also differs based on consumers' attitudes, cultures (Khare & Sadachar, 2014), and online social networking activities (Xu-Priour, Truong, & Klink, 2014). At the same time, little information is available on how online social interaction affects users' online shopping patterns (Xu-Priour et al., 2014). In general, residents of developed countries use the Internet for matured and meaningful purposes, compared to residents of developing countries (Ahmed & Aguilar, 2013; Khare

& Sadachar, 2014). More specifically, there is more acceptance of online shopping in the U.S. than in India (Khare & Sadachar, 2014).

Focused on cultural differences, Ahmed and Aguilar (2013) concluded that Canadian students were more comfortable buying books from any website than were Mexican students due to lack of trust issues. Xu-Priour et al. (2014) found that Chinese consumers tend to spend more time browsing online stores before making online purchases, compared to French consumers. Xu-Priour et al. discovered a link between a society's culture and its perception of trust.

While Kim and Lennon (2011) emphasized that online communication among the buyers was paramount to electronic retailers' success, Sebastianelli and Tamimi (2013) revealed that transaction security, website usability, and e-retailer's reputation were some of the top attributes affecting consumers' online behavior. Online consumers usually determine e-tailers' trustworthiness by browsing their websites (Bock et al., 2012). Bae and Lee (2011) suggested that customers prefer recommendations from their friends before making online purchases. Many users consider interacting with others online as well as browsing websites as their favorite pastime activities (Xu-Priour et al., 2014). Kucukemiroglu and Kara (2015) concluded that word-of-mouth advertising plays a key role in the consumers' buying patterns.

Trust, in general, is established in phases and, therefore, e-tailers need to work hard to communicate the value proposition of their before their customers make their initial purchase online (Bock et al., 2012). Customers prefer to shop from an online retailer if the customers are familiar with the retailers' physical presence (Khare &

Rakesh, 2011; Patra, 2015). Customers usually transfer their experience and trustworthiness from retailers' face-to-face to online presence (Bock et al., 2012). Khare, Dixit, Chaudhary, Kochhar, and Mishra (2012) introduced another perspective of this experience by stating that younger shoppers are more likely to adapt to newer technologies. Bock et al. suggested a hybrid e-commerce method to conduct business where customers can reserve products online, visit a nearby physical store to evaluate their reserved products, and then decide if they want to purchase them.

Between 2007 and 2012, e-commerce in India grew by 50% (Ernst & Young, 2012). The number of online transactions in India has also increased from 3 million in 2007 to 11 million in 2011 (Ernst & Young, 2012). As e-commerce gains wider acceptance in India, it is critical for online retailers to understand the purchase decision criteria of Indian consumers (Khare & Rakesh, 2011). While Gupta and Nayyar (2011) suggested that Internet adoption in India is growing rapidly, data from the Internet World Stats (2014) indicated that Internet penetration in India has reached only 19.7%, as compared to the global average of 42.3%. In another study, Ernst & Young (2012) confirmed that the Internet penetration rate in India is among the lowest in the world. KPMG and IAMAI (2013) suggested that poor infrastructure, intermittent availability of payment gateways, and scarcity of consumer trust forces online retailers to use expensive and ineffective methods, such as cash on delivery (COD).

Ernst & Young (2012) reported that while credit cards are the most popular method of payment for online transactions around the world, Indian consumers use the COD method for 80% of the online transactions. Lack of well-defined return policies can

be another barrier for customers who are making the decision of whether to purchase online (Pei et al. 2014). The speed of the Internet connection can be a contributing factor to Indian consumers' online shopping behavior. The average speed of an Internet connection in India increased from 900kbps in 2007 to 844kbps in 2011 (Ernst & Young, 2012).

Deeply embedded social norms can work against Indian consumers as they try to shift their buying habits from brick-and-mortar stores to online retailers. Thakur and Srivastava (2015) mentioned that consumers associate shopping as an extension of socializing. By switching to the online method, Indian consumers may jeopardize their friendships (Thakur & Srivastava, 2015).

This section included the findings of various research studies on customers' inhibition to e-commerce. From technical problems to social stigma, Indian customers face multiple challenges as they try to adapt to online shopping. Lack of trust is a central issue preventing Indian customers from engaging in e-commerce activities. An e-tailer's reputation, lower Internet penetration rate, poor infrastructure, suboptimal website designs, unreliable technology for payment processing, concern regarding security of personal data, and social norms are some of the contributing factors influencing e-commerce platform adoption by Indian customers.

E-business Operational Strategies for Indian SME Leaders

With increased penetration of the Internet, companies are compelled to adopt e-business strategies to reduce cost and remain competitive (Yee-Loong Chong, Ooi, Bao, & Lin, 2014). As more people turn to the Internet to buy products and services, leaders of

SME considering adopting e-commerce need to understand the two phases of an online purchase: encouraging users to shop online and retaining those users to generate additional sales (Zhang et al., 2011). SME leaders need to understand that it takes more time and effort to acquire new customers than to nurture the existing ones (Zhang et al., 2011). Ironically, the changes required to move from traditional business to e-business have more to do with increased business knowledge than with knowledge of technology (Yee-Loong Chong et al., 2014). A joint study conducted by Ernst & Young and the Associated Chambers of Commerce of India ([ASSOCHAM] 2012) projected that the contribution by Indian SME leaders to the national GDP of India will increase from 17% in 2011, to 22% in 2020.

It is crucial for SME business leaders to understand the importance and impact of online social networking on the sale of their products and services (Xu-Priour et al., 2014). Consumers tend to seek acceptance from other social groups before adapting to new trends (Khare, Khare et al., 2012). A website can serve as a conduit between an e-tailer and online shoppers for facilitating comments, suggestions, and feedback, resulting in creation of additional product and service offerings (Bavarsad et al., 2013). E-tailers need to collect and analyze customer data to learn more about their customers' behavior and popularity of their products (Liao, Chen, & Lin, 2011). E-tailers can also share their customer data with their vendors and suppliers to create personalized and meaningful experiences for their customers (Liao et al., 2011).

Online retailers need to pay close attention to gender differences because their shopping habits and patterns are disparate (Bae & Lee, 2011; Tamimi & Sebastianelli,

2015). For many women, shopping provides a channel to interact and socialize with others; therefore, they prefer to shop inside physical stores than to shop from online websites (Gupta & Nayyar, 2011). In contrast, men look for convenience and hassle-free shopping experiences; therefore, they prefer to shop online (Gupta & Nayyar, 2011).

Gender also plays a critical role on product recommendations. Women are susceptible to other buyers' opinions when deciding on which product to purchase (Bae & Lee, 2011). In most cases, men try to maintain their individuality and uniqueness while women focus on remaining socially connected with others when shopping online (Bae & Lee, 2011). Besides the gender attributes, age, culture, education, income, and occupation of a shopper play an important role in the online purchasing process (Gupta & Nayyar, 2011). E-tailers need to keep these characteristics in mind when formulating their marketing strategies.

Compared to large organizations, SME have the advantage of establishing and maintaining close contact with customers and remaining flexible and responsive to market change, while generating innovative product and service offerings (Franco et al., 2014). It is critical for SME business leaders to offer customers satisfaction and confidence. While satisfaction takes place after a buyer completes the purchase, trust points to a buyer's future purchases (Zhang et al., 2011). Figure 4 highlights a typical customer's perceived intentions when shopping online. Zhang et al. (2011) stated that perceived website usability, website owner's expertise, website reputation, and trust play an important role in shaping consumer-e-tailer relationships and determining consumers' repurchase intentions.

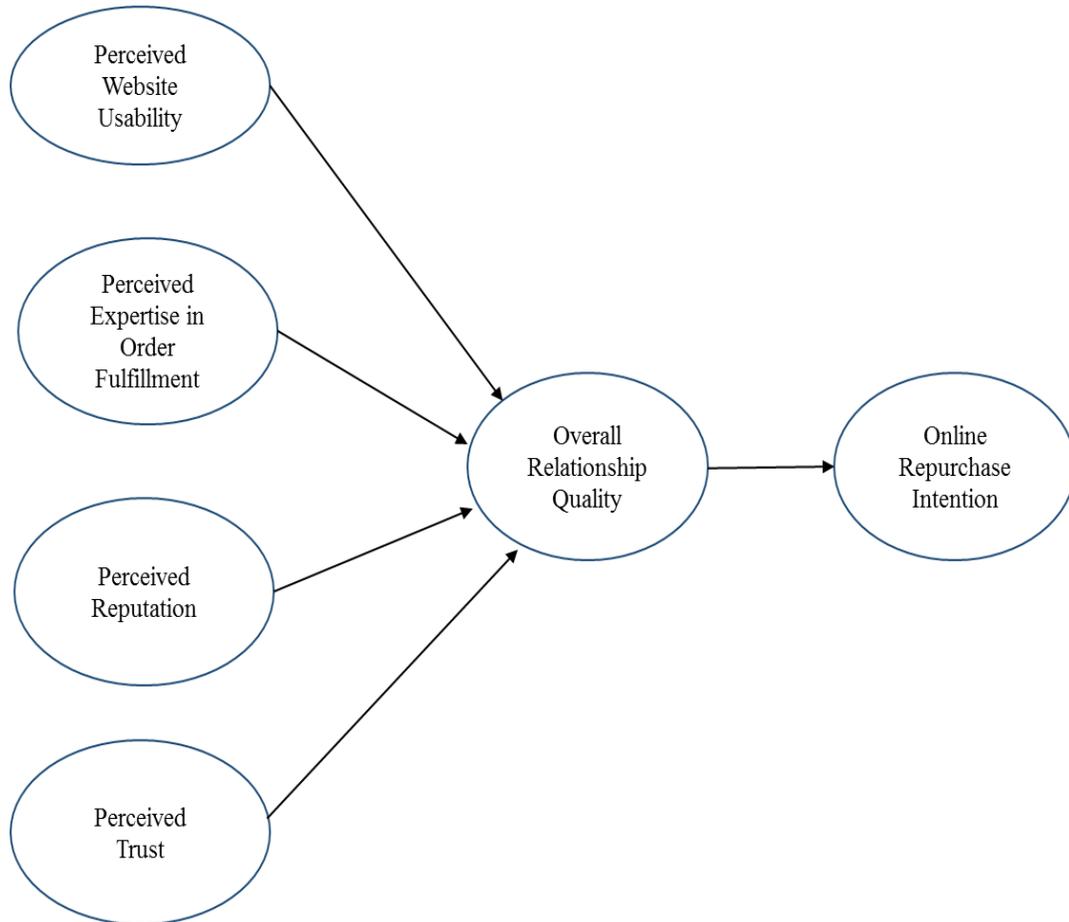


Figure 4. Customers' online repurchase intention. Adapted from "Repurchase intention in B2C e-commerce - A relationship quality perspective," by Y. Zhang, Y. Fang, K. Wei, K. Ramsey, P. McCole, & H. Chen, 2011, *Information & Management*, 48, p. 193. Copyright 2011 by Elsevier.

and communication strategies. Indian SME business leaders utilize social media sites to build online user communities and create effective word-of-mouth campaigns (Ernst & Young & ASSOCHAM, 2012). Adequate strategic planning ensures proper organizational operation, lower operation costs, and increased customer service quality.

While having a website is critical for an organization to advertise its products and services (Hung et al., 2014; Kim & Lennon, 2013), the impersonal and static nature of a

website continues to pose the biggest challenge for online consumers (Khare, Khare et al., 2012). To address this drawback, several researchers (Khan & Uzma, 2013; Kucukemiroglu & Kara, 2015; Xu-Priour et al., 2014) emphasized the need to build an online community in which buyers can interact with one another, express their views on various products, and rate their overall shopping experiences. Xu-Priour et al. (2014) pointed out that many e-business failed in foreign markets when they neglected to consider the requirements for facilitating social interaction among their customers. Providing a channel for buyer-to-buyer, buyer-to-seller, and seller-to-seller communication can facilitate open communication, promote transparency, and foster trust (Xu-Priour et al., 2014).

Liao et al. (2011) emphasized the importance of understanding the customers' buying habits before implementing efforts to create more trust in buying online. Providing multi-dimensional product information could allow online consumers to thoroughly evaluate the product and gain confidence before making the purchase (Thakur & Srivastava, 2015). Indian consumers are not comfortable sharing their personal and financial information when making an online purchase (Ernst & Young, 2012; Thakur & Srivastava, 2015). Therefore, e-tailers need to design technical architecture including encryption, firewalls, and digital certificates on their websites to gain credibility and consumer confidence (Thakur & Srivastava, 2015). Finally, Indian SME leaders should also consider leveraging human capital to promote their international marketing strategies (FICCI, 2013).

This section highlighted the online business operational strategies discovered by various scholars. SME business leaders that are ready to implement e-commerce platforms need to understand their customer base and evaluate every aspect of online shopping, including (a) design of website, (b) ease of navigation, (c) accuracy and completeness of product information, (d) provision for secure payment, and (e) protection of consumer data. While customers realize the cost benefits and flexibility that an e-commerce platform offers, SME business leaders are responsible for providing their customers with safe, easy, and reliable shopping experiences.

Website Attributes

Electronic commerce involves buying and selling products or services via the Internet (Bavarsad et al., 2013; Carmona et al., 2012). E-commerce has contributed to the increased use of information and technology in business and society (Šimičević et al., 2013). Because the number of online shoppers has increased (Šimičević et al., 2013), organizations need to design user-friendly and intuitive websites to invite and retain their customers (Carmona et al., 2012; Khare, Khare et al., 2012). Despite intermittent success and the dot-com crash in 2000, many companies continue to invest in e-commerce platforms (T. Yang et al., 2015).

While T. Yang et al. (2015) pointed to insufficient research linking e-business initiatives by organizations and the impact of these initiatives on profitability, Ellahi and Bokhari (2013) introduced a direct link between website attractiveness and organizational profitability. Citing the increased adoption of online shopping, T. Yang et al. described e-commerce websites as an alternative contact point for customers and stressed the

importance of accurate and timely information. Ellahi and Bokhari, as well as T. Yang et al., believed that website design influences consumers who, in turn, will be influencing others. Having an efficient website design is a major contributing factor for consumers when purchasing online (Bavarsad et al., 2013; Ellahi & Bokhari, 2013; Gregori et al., 2014; Khare, Dixit et al., 2012; Lee & Kozar, 2012). Website appearance, content, navigation, and built-in security are some of the ways e-tailers can design high level of website (Huang & Benoucef, 2013). Therefore, Thakur and Srivastava (2015) stressed the need to optimize website content to accommodate users with slower Internet connection speed.

It is critical for SME business leaders to understand the connection between consumer's decision-making process and the richness of their business organizations' websites (Maity & Dass, 2014). The face-to-face communication channel offers the richest form of interaction, followed by video, audio, and text-based channels (Maity & Dass, 2014). While planning a multi-channel offering, SME business leaders need a well-crafted business practice to match the specific audience with the richness of the specific media channel (Maity & Dass, 2014).

A business owner's technological competency and the overall performance of an organization share a linear relationship (Šimičević et al., 2013). The use of technology is one of the key attributes of the economic development of a nation (Awiagah et al., 2015). While commercial websites can have many benefits for organizations, SME leaders lag in adoption of such websites as compared to the leaders of larger organizations (Hung et al.,

2014; T. Yang et al., 2015). SME leaders also lack necessary resources to restructure their industries and gain competitive advantage (T. Yang et al., 2015).

Research conducted by Khan and Uzma (2013) revealed that some of the top Indian e-commerce companies are represented by full-featured websites consisting of (a) search functionality, (b) e-mail subscription, (c) links to external websites, (d) product recommendations, and (e) feedback submission. While an e-commerce website can generate the most amount of relevant information about its customers, several researchers (Bae & Lee, 2011; Khan & Uzma, 2013) stressed the need for user-generated content (UGC), such as product reviews and user experience.

Six criteria for effective website design exist (see Figure 5), including (a) website usability, (b) visual properties, (c) technical competency, (d) security, (e) communication, and (f) prestige (Cebi, 2013). Website usability refers to the ease of navigation, while visual properties involves placement of graphics and text (Cebi, 2013). Technical competency indicates system uptime, while security addresses reliability and privacy concerns (Cebi, 2013). Communication is composed of contact information and online help, while prestige connotes the overall reputation of the website in the marketplace (Cebi, 2013). Finally, Cebi (2013) indicated that the technical competency of a website is the most important attribute influencing users' online shopping experience.

Bavarsad et al. (2013) pointed out that most online shopper browse websites before making an online purchase. Websites with inaccurate or incomplete information generally fail to earn consumers' trust and business (Bavarsad et al., 2013; Kesharwani & Bisht, 2012). SME leaders need to understand that online buyers can easily switch to the

website of a company producing a competing product without incurring any real cost (Bavarsad et al., 2013). Therefore, simply investing in technological features on the website is not enough (T. Yang et al., 2015).

Business leaders of successful organizations tend to spend less money on e-commerce platforms than less successful competitors (T. Yang et al., 2015). The layout of a website, usefulness of its content, and online purchases are closely linked to one another (Bavarsad et al., 2013; Kesharwani & Bisht, 2012). Indian consumers prefer to shop from user-friendly websites that are easy to navigate (Kesharwani & Bisht, 2012). Focusing on ease of website navigation, e-tailers should consider creating a mobile version of their websites for other platforms, including tablets and smartphones (Ellahi & Bokhari, 2013).

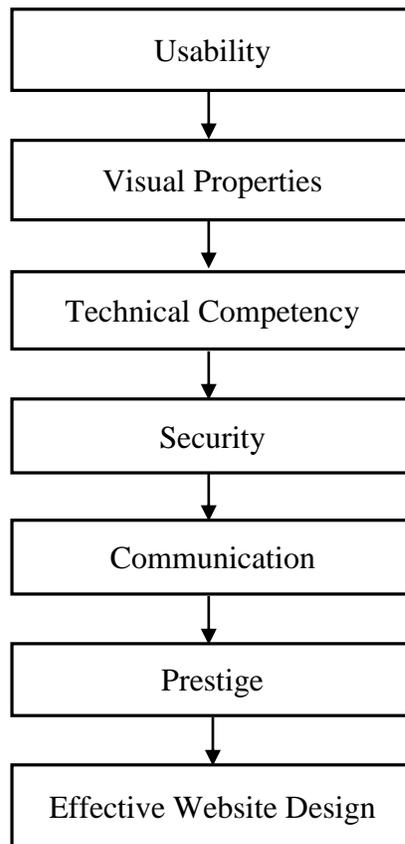


Figure 5. Hierarchy of attributes leading to an effective website. Adapted from “A quality evaluation model for the design quality of online shopping websites” by S.Cebi, 2013, *Electronic Commerce Research and Applications*, 12, 126. Copyright 2012 by the Elsevier.

Online shoppers prefer to do business with reputable e-tailers that provide clear guidelines on their privacy, data retention, and confidentiality policies (Bavarsad et al., 2013; Kesharwani & Bisht, 2012). More specifically, online users are most likely to avoid any transactions with e-tailers considered opportunistic (Kesharwani & Bisht, 2012). Realizing that a negative online shopping experience can make customers angry, anxious, and nervous (Kim & Lennon, 2013), trustworthy e-tailers should focus on

providing a consistent user experience by maximizing uptime and minimizing every possible uncertainty (Kesharwani & Bisht, 2012).

E-tailers need to think about how they can attract new customers, retain existing ones, remain innovative, and maintain the quality of their website (Kim & Lennon, 2013; Yang, Li, Kim, & Kim, 2015). Well-designed websites can also project an image of being a secure website (Kesharwani & Bisht, 2012). Ellahi and Bokhari (2013) indicated that strong privacy and security policies of a website tend to increase user confidence. E-tailers can grow their customer base and increase customer retention rates using website portals and building trust with online shoppers, according to Bavarsad et al. (2013) and Kesharwani and Bisht (2012). K. Yang et al. concluded that e-tailers need to enhance website attributes that promote customer interactions, make shopping resemble a social event, provide entertainment, and generate positive electronic word-of-mouth (eWOM). Similarly, Ellahi and Bokhari pointed out that the number of e-commerce websites is growing rapidly; therefore, e-tailers must design their websites while remaining user-centered.

This section focused on website attributes identified by various scholars. As e-commerce gains popularity, e-tailers need to pay close attention to many attributes to optimize their virtual storefront, including (a) accurate and timely information, (b) ease of navigation, (c) fostering consumer trust, and (d) maximizing uptime. To create and maintain a successful website requires balancing, strategic initiatives, financial resources, and technical expertise. Only investing in technology will ensure the viability of the website and overall profitability of an organization.

Transition and Summary

Section 1 included the overall foundation of the study, background of the problem, problem statement, purpose statement, nature of the study, research question, conceptual framework, and definition of terms. Section 1 also included the assumptions, limitations, and delimitations; significance of the study; reduction of gaps; implications for social change; and a thorough review of the professional and academic literature.

Section 2 focuses on the purpose statement, role of the researcher, participants, research method and design, population and sampling, ethical research, data collection instruments and techniques, data organization techniques, data analysis, and reliability and validity. Section 3 presents analysis of the findings, relationships across various themes, correlation to the conceptual framework, and implication to social change. Section 3 also includes a detailed discussion about how this study can be applicable to improve the state of Indian SME.

Section 2: The Project

Section 2 focuses on the (a) purpose statement, (b) role of the researcher, (c) study participants, (d) research method and design, (e) population and sampling, (f) ethical research, (g) data collection instruments and techniques, (h) data organization techniques, (i) data analysis, and (j) data reliability and validity.

Purpose Statement

The purpose of this qualitative multi-case study was to explore the strategies that Indian SME business leaders in the manufacturing sector used to adopt e-commerce platforms to expand their businesses. The population for this study consisted of manufacturing Indian SME business leaders having adopted e-commerce platforms in their businesses in the State of Gujarat, which is one of the most rapidly growing states in western India (Debroy, Bhandari, & Aiyar, 2013). The social impact of this study may include increases in innovation, employment, awareness of global trends, and living standards. Indian SME business leaders in the manufacturing sector may also realize increased profits, which may enable them to increase their charitable contributions to the local communities in the State of Gujarat.

Role of the Researcher

It is essential for researchers to clarify their role when undertaking a qualitative study (Unluer, 2012). An effective qualitative study depends on the knowledge, abilities, and honesty of the researcher conducting the analysis (Rabionet, 2011). With the advent of new technologies, scientific tools, and increased information, the role of a researcher is changing dramatically (Kyvik, 2013). Due to its unscientific nature, the odds are stacked

against the researcher conducting a qualitative study (Unluer, 2012). While a researcher faces many challenges, including limited time, scarce resources, insufficient proficiency, and incomplete information (Suri, 2011); many tasks need to be completed, including networking with fellow researchers, collaborating with participants, managing study resources, performing research activities, and following guidelines to publish the research (Kyvik, 2013). Membership databases from the local chambers of commerce and my professional contacts helped me to recruit quality participants, establish relationships, explain overall objectives of my study, and obtain key pieces of information SME leaders directly affecting the social and economic fabric of the region that can help the leaders of other SME leaders.

Finally, when trying to gain study participants' perspectives, researchers need to structure their interviews with open-ended questions starting with who, what, when, where, why, and how (Chenail, 2011). The open-ended interview questions used in this study may extrapolate meaningful information from the study participants. By posing open-ended questions to study participants, researchers may accidentally discover additional information, which can be useful for the research (Jacob & Furgerson, 2012; Moll, 2012). The reason for using a semistructured interview was to facilitate informal conversation with the study participants to obtain meaningful information highlighting e-commerce platform adoption challenges and participants' efforts to overcome those obstacles.

As a business and technology professional, I have worked for many large corporations in the United States since 1995. Several of my job responsibilities have

included (a) helping SME leaders connect their organizations to the Internet, (b) creating and hosting SME websites, (c) designing secure websites, (d) integrating e-commerce into existing business operations, (e) assisting SME business leaders monetizing their content, (f) ensuring network uptime by active monitoring, and (g) designing disaster recovery solutions. Working as a technical liaison between my employer and SME clients has allowed me to see that SME leaders struggle to complete their technology deployment projects. I used my observations and experiences effectively as a part of this study.

The Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979) provided ethical guidelines for the following three principles: (a) respecting individuals involved in research, (b) providing adequate and nonthreatening research environments, and (c) maximizing research benefits without harming anyone. As per the guidelines included in The Belmont Report (1979), I maintained the confidentiality of my study participants, accepted their answers without any prejudice, treated them with respect, reported their responses without any judgment, and shared the outcome of study with the management of local chamber of commerce and study participants. As suggested by Unluer (2012), I mitigated researcher's bias by generating greater awareness of perceived bias, remaining focused on the interview questions, following the research design, handing off potentially sensitive data to appropriate parties, and concentrating on checking and sharing outcomes with others.

My background and familiarity with the research topic could lead me to a biased outcome. A researcher may face decreased objectivity when researching a familiar topic (Unluer, 2012). Any magnitude of the bias can make the outcome of a study questionable (Ioannidis et al., 2014; Teusner, 2015). To counter this notion and perform objective research, a researcher can employ several techniques, including to (a) generate greater awareness of perceived bias, (b) remain focus on the interview questions, (c) follow the research design, (d) hand off potentially sensitive data to appropriate parties, and (e) concentrate on checking and sharing outcomes with others (Unluer, 2012).

While qualitative research consists of new ways for researchers to identify what would constitute evidence, many believe that qualitative research is inferior to quantitative research (Xu & Storr, 2012). In qualitative research, where evidence is not readily present, researchers need to become an instrument themselves and rely on a series of interview questions (Draper & Swift, 2011; Xu & Storr, 2012). Contrary to popular belief, the interview protocol is much more than a simple conversation; it involves probing, remaining silent, asking follow-up questions, building relationships, and learning from others' experiences (Jacob & Furgerson, 2012; Teusner, 2015; Xu & Storr, 2012).

Participants

The participants of this study were SME business leaders, associated with the manufacturing industry and located in the western India. Using personal relationships, professional contacts, and social networking, I identified a qualified pool of participants for this study. Social relationships can significantly increase the trust between a

researcher and a participant (Al-Yateem, 2012; Cho & Park, 2013; Englander, 2012; Jacob & Furgerson, 2011). After conducting extensive research using a large number of articles, books, and research studies, Dworkin (2012) claimed that having just 5 participants for qualitative studies is adequate. After reviewing the pool of participants, I selected and interviewed 3 SME business leaders from the manufacturing sector. This sample size complies with Walden University's DBA program requirements (Hamersly, 2015; Tingley, 2015, Sapp, 2014).

The selection process for identifying and selecting study participants is crucial because participants must possess knowledge and experience to answer the interview questions and contribute positively to this study (Englander, 2012; Gould et al., 2015; Ren, Zhang, Zhang, & Shen, 2015). The selection process for study participants included two criteria; a participant must be the owner of an SME in the manufacturing sector with successful experience in the adoption of an e-commerce platform. Participating SME leaders must have adopted an e-commerce platform without utilizing outside resources. Therefore, participating leaders of SME had significant and first-hand experience regarding addressing challenges they encountered while successfully adopting an e-commerce platform for their organizations.

These criteria ensured a focused group of participants able to contribute productively to my study and that the group aligned well with my overall research question. Several authors (Al-Yateem, 2012; Cater & Forssell, 2012; Cachi & Millward, 2011; Chenail, 2011; Frankfort-Nachmias, Nachmias, & DeWaard, 2015) suggested obtaining participant's signature on the informed consent form, once a participant is

willing to be a part of the study. Upon my request, every participant submitted a signed copy of an informed consent form (see Appendix B). The principles behind the signed consent form include protecting participants' rights while minimizing any risks during the research cycle (Abernethy et al., 2014; Faden, Beauchamp, & Kass, 2014; Gibson, Benson, & Brand, 2012, Frankfort-Nachmias et al., 2015).

While face-to-face interaction does not guarantee rapport between an interviewer and study participant, my intentions were successful for establishing professional working relationships with study participants by communicating the importance of the study and the usefulness of their feedback, as recommended by several researchers (Draper & Swift, 2011; Harvey, 2014; Rabionet, 2011; Trier-Bieniek, 2012; Simmons et al., 2015). As suggested by the authors of the several studies (Abernethy et al., 2014; Bryman, 2012; Faden et al., 2014; Gibson et al., 2014), my efforts were successful in addressing ethical and privacy aspects of the research with the study participants ensuring productive and interactive interactions. Based on the recommendations provided by the authors of several studies (Abernethy et al., 2014; Cater & Forssell, 2012; Chenail, 2011; Mealer & Jones, 2014), a review session took place to address any unclear areas of the informed consent form with the participant before starting the interview process. These steps provided some degree of comfort to study participants, allowing them to engage in the interview process and contribute effectively to my study.

Research Method

The quality of the research method has an impact on the outcome of the study (Bongoni, Verkerk, Dekker, & Steenbekkers, 2015; Kaczynski et al., 2013; Suresh &

Chandrashekara, 2012). Three research methodologies are available to researchers when conducting research studies: qualitative, quantitative, and mixed-methods (Bryman, 2012; Hunt, 2011; Kaczynski et al., 2013). The qualitative research method focuses on understanding participants' perspectives, experiences, decision-making processes, and phenomena (Elo et al., 2014; Horsewood, 2011; Kaczynski et al., 2013). The qualitative method consists of applying multiple techniques to collect data, such as personal interviews, focus groups, observations, and review of documentation (Bryman, 2012; Elo et al., 2014; Kaczynski et al., 2013). In contrast, a researcher can use quantitative research methodology and scientific theories to validate the outcome of previous studies (Horsewood, 2011; Kaczynski et al., 2013; Thomas & Magilvy, 2011). This task is not the focus of my study. The goals of qualitative and quantitative research methodologies are also inherently different (Barnham, 2012; Casey & Murphy, 2013; Thomas & Magilvy, 2011).

The use of mixed-methods research methodology was under consideration for this study. However, it combines attributes from the qualitative and quantitative research methods (Östlund et al., 2011; Palinkas et al., 2013; Thomas & Magilvy, 2011; Venkatesh et al., 2013), which is not suitable for this study. The mixed-methods research methodology works well when neither a qualitative nor a quantitative approach is adequate as a stand-alone method to conduct a study (Kaczynski et al., 2013; Östlund et al., 2011; Palinkas et al., 2013; Wisdom, Cavaleri, Onwuegbuzie, & Green, 2012). The qualitative research is preferred when performing an exploratory studying of a topic with multilevel variables and an inability to capture accurate measurement data (Bailey, 2014;

Horsewood, 2011; Kaczynski et al., 2014). Several authors (Ginsberg & Sinacore, 2013; Miller et al., 2011; Yang, 2013) found that qualitative studies are helpful when trying to gain insights from study participants. Therefore, it was my decision to select a qualitative research methodology for this study.

Research Design

While the research method focuses on methods of collecting data, the research design approach provides a framework for obtaining and analyzing research data (Bryman, 2012; Ioannidis et al., 2014; Silverman, 2011). An exploratory multiple-case research design approach is most appropriate for obtaining answers to research questions (Duxbury, 2012; Ventakesh et al., 2013; Zivkovic, 2012) and understanding the success of SME leaders that managed to deploy an e-commerce platform. A case study research design approach strives to extrapolate in-context data and report them in an unbiased fashion (Amerson, 2011; Duxbury, 2012; Walshe, 2011), which was the goal of this study. Using the case study research design approach, researchers can study and analyze events over an extended period and determine *what* events occurred or *why* these events occurred (Amerson, 2011; Cronin, 2014; Duxbury, 2012).

The qualitative research methodology consists of various research design approaches, including narrative research, ethnography, phenomenology, and case study (Hamilton & Corbett-Whittier, 2012; Marshall & Rossman, 2011; Petty et al., 2012). The grounded theory research design focuses on a systematic analysis of data using inductive and deductive theories instead of finding the truth (Bluhm et al., 2011; Bryman, 2012; Hamilton & Corbett-Whittier, 2012). My decision was against selecting the narrative

research design approach because this approach explores lived experiences of people (Bryman, 2012; Makkonen, Aarikka-Stenroos, & Olkkonen, 2012; Petty et al., 2012), which was not the focus of this study.

The ethnographic research design approach revolves around a specific culture (Kaczynski et al., 2013; Mutchler, McKay, McDavitt & Gordon, 2013; Petty et al., 2012) and, consequently, it cannot capture details regarding SME leaders' experiences as a phenomenological approach. Using phenomenological research design approach for this study was one of the options. Phenomenology can be used to penetrate into human experiences and bring out participants' innermost feelings and lived experiences (Achakul & Yolles, 2013; Kafle, 2011; Marshall, Cardon, Poddar, & Fontenot, 2013), which may not be helpful in analyzing the intricacy of a successful e-commerce platform adoption. The case study research design approach, on other hand, provides an alternative method to capture phenomena that may exist in a dynamic environment without relying on retrospectives or surveys (Amerson, 2011; Duxbury, 2012; Moll, 2012). Finally, a researcher should select the case study research design approach when a phenomenon and its context are difficult to ascertain (Amerson, 2011; Duxbury, 2012; Yin, 2014).

A case study research design approach is one of the leading methods for conducting a qualitative study (Cronin, 2012; Duxbury, 2012; Yin, 2014). Because the researchers are able to understand complex social phenomena when using the case study research approach, which includes the concept of repeating interviews with the same participant to gain in-depth data (Amerson, 2011; Moll, 2012; Yin, 2014), it is the optimal approach for this study. Research conducted using case study methods can either

develop new theories or expand existing ones (Amerson, 2011; Duxbury, 2012; Moll, 2012). Researching the topic from the perspective of SME business leaders may provide insight into the challenges of adopting e-commerce platforms in their businesses. Using a case study to understand how some of the SME business leaders adopted an e-commerce platform into their businesses may provide valuable insight for other SME business leaders in the manufacturing sector in western India.

The concept of data saturation exists in every research design that uses the interview technique to obtain the bulk of the research data (Cater & Forssell, 2012; Dworkin, 2012; Marshall et al., 2013; O'Reilly & Parker, 2012). Saturation occurs when a researcher cannot obtain any new information from the research participants (Dworkin, 2012; Marshall et al., 2013; Morse, 2015; Shen et al., 2014). Data saturation indicates that the researcher has collected enough information to adequately reflect participants' perspectives (Kolb, 2012; Marshall et al., 2013; Morse, 2015). The saturation point is a vague concept because researchers are unable to predict when they will encounter the saturation point in their study (Bernard, 2013; Dworkin, 2012; Marshall et al., 2013; O'Reilly & Parker, 2012). Therefore, the sample size of a study has more to do with saturation than representation (Bradley, Getrich, & Hannigan, 2015; Dworkin, 2012; Hodges, 2011; Marshall et al., 2013).

Several authors (Dworkin, 2012; Miller et al., 2011; Suresh & Chandrashekhara, 2012) suggested keeping the number of participants lower when conducting qualitative research to focus on individual participants and their experiences. At the same time, interviews can continue until no new additional themes emerge (Finfgeld-Connett, 2014;

Gagliardi, 2012; Shen et al., 2014). The saturation point is an integral part of the qualitative research methodology (Bradley et al., 2015; Dworkin, 2012; Finfgeld-Connett, 2014; Morse, 2015; O'Reilly & Parker, 2012) and, therefore, my interviewing process continued until there was no new information revealed.

Population and Sampling

Selecting the appropriate sampling method is critical for improving the trustworthiness of the study (Elo et al., 2014; Englander, 2012; Robinson, 2014; Suri, 2011). The purposeful sampling method is widely used in qualitative studies because of its usefulness for obtaining rich and meaningful information (Draper & Swift, 2011; Gagliardi, 2012; Kun, Kassim, Howze, & MacDonald, 2013; Palinkas et al., 2013; Suri, 2011). The purposeful sampling method is well suited for qualitative studies in which a researcher is interacting with participants possessing knowledge about the research topic (Chidlow et al., 2014; Elo et al., 2014; Gagliardi, 2012).

Purposeful sampling consists of multiple methods, including typical, convenience, extreme, snowball, and criterion methods (Bryman, 2012; Gagliardi, 2012; Polit & Beck, 2012; Suri, 2011). Inspired by several studies (Cater & Forssell, 2012; Nymar, Mattiasson, Henriksson, & Kiessling, 2014; Pane et al., 2013), using Patton's (1991, 2002) criterion sampling emerged as the best method to obtain information-rich data for my study.

Typical case sampling will not be appropriate for this study because the sampling is generalized in nature and focus is given on the cases that have nothing unusual about them (Draper & Swift, 2011; Robinson, 2014; Suri, 2011). The convenience sampling is

an unsuitable sampling method for this study because it involves locating willing participants from nearby proximity on a first-come-first-served basis (Khare, Dixit et al., 2012; Robinson, 2014; Suri, 2011). Convenience sampling involves locating willing participants from nearby proximities on a first-come-first-served basis (Khare, Dixit et al., 2012; Robinson, 2014; Suri, 2011). Because this method does not fit my study, I reviewed the convenience sampling method but later discarded it. My focus also turned to extreme sampling for this study. However, extreme sampling involves focusing only on the cases with exemplary and prominent outcome (Bryman, 2012; Suri, 2011; Zheng, Xu, Yuan, & Wu, 2013), which was not applicable for this study.

The snowball sampling involves asking participants for other qualified participants (Bryman, 2012; Robinson, 2014; Suri, 2011). Due to this dependency factor, I rejected the snowball sampling method. Criterion sampling involves identifying and selecting participants who meet certain criteria for the study (Nymark, Mattiasson, Henriksson, & Kiessling, 2014; Robinson, 2014; Schiller et al., 2015; Suri, 2011). Criterion sampling helped filter the participant pool by identifying only relevant participants to extract meaningful information. Research data from appropriate participants highlighted all the attributes needed to successfully adopt an e-commerce platform in western India's manufacturing sector.

Sample size equates to the number of participants for a study (Dworkin, 2012; Gagliardi, 2012; Suresh & Chandrashekara, 2012). While calculating accurate sample size is a crucial step in any research design (Dworkin, 2012; Elo et al., 2014; Gagliardi, 2012; Marshall et al., 2013; Suresh & Chandrashekara, 2012), the size of the sample is

governed by practical and theoretical aspects of the study (Cater & Forssell, 2012; Gagliardi, 2012; Robinson, 2014). Qualitative studies do not have predetermined sample size because the optimal sample is contingent upon the aim of the study, research questions, and complexity of the data (Draper & Swift, 2011; Dworkin, 2012; Elo et al., 2014; Gagliardi, 2012; Kaczynski et al., 2014). When deciding upon the number of participants, a researcher needs to be mindful that (a) not every qualified individual will be part of the study, (b) not every answer to interview questions will be complete, and (c) not every feedback will be usable (Elo et al., 2014; Gagliardi, 2012; Suresh & Chandrashekara, 2012).

Several qualitative studies (Danque, Serafica, Lane, & Hodge, 2014; Dworkin, 2012; Kalinic & Forza, 2012) indicated that the saturation point could occur in as little as five participants. Therefore, my study included a pool of 3 participants. Suri (2011), Morse (2015), and Cater and Forssell (2012) established a direct link between the clarity of the interview questions and the data saturation point. Data saturation refers to a phase of a study where additional information has no real value (O'Reilly & Parker, 2012; Rubin & Rubin, 2011; Schiller et al., 2015; Suri, 2011). In other words, a researcher obtained every possible insight, perspective, and theme related to the study (Marshall et al., 2013; Morse, 2015; Suri, 2011). Specific and close-ended research questions will result in quicker data saturation (Miller et al., 2011; Rubin & Rubin, 2011; Suri, 2011); therefore, my interview questions were open-ended in nature to obtain a variety of information from the study participants.

Based on the recommendations from authors of several studies (Draper & Swift, 2011; Kaczynski et al., 2014; Moll, 2012), I was the main data collection instrument for this study and handled the task of collecting, organizing, and analyzing research data. Following guidance from several authors (Al-Yateem, 2012; Englander, 2012; Mealer & Jones, 2014; Trier-Bieniek, 2012), each study participant was given a choice to select the time and place of their choosing for face-to-face interview.

As recommended by the authors of several studies (Cho & Park, 2013; Harvey, 2014; Mealer & Jones, 2014; Thomas & Magilvy, 2011), I obtained a signed informed consent form from each participant before starting the interview. I used my cell phone to record the interview conversation with each participant to ensure accuracy and validation. The time frame for each interview session was one hour, after following the recommendations of the several authors (Jacob & Furgerson, 2012; Ginsberg & Sinacore, 2013; Schiller et al., 2015; Shavers & Moore, 2014).

Deciding on a number of participants is crucial for a study, as recruiting more participants than needed can result in higher costs and securing less than an optimal number of participants can lead to inconclusive findings (Marshall et al., 2013; Morse, 2015; Suresh & Chandrashekara, 2012). Identifying appropriate participants, accommodating participants' schedule for interviews, establishing professional relationships with participants, creating a nonthreatening environment for the interviews, and by asking open-ended interview questions can generate high-quality data collection resulting in reliable results (Jacob & Furgerson, 2012; Mealer & Jones, 2014; Moll, 2012; Suresh & Chandrashekara, 2012).

Ethical Research

Obtaining consent is an important part of any study (Al-Yateem, 2012; Englander, 2012). Every participant was required to sign the informed consent form before participating in my study (see Appendix B). The informed consent form outlined the nature of the study, expectations from participants, potential risks, benefits, and my contact information, should they have any questions. Highlighting the bigger purpose of this research, my focus remained on clearly informing study participants about their voluntary contribution and participation. Study participants did not receive any tangible or in-tangible benefit during or after the research.

Inspired by Cater and Forssell (2012)'s study, I also informed participants about their at-will participation in this study. Participants were able to withdraw from the study at any time without providing any reason. The consent form clearly outlined that participants could withdraw from the study at any time by expressing their wish to withdraw, either orally or in writing without any negative consequences. Participants' privacy and confidentiality should be at the core of every study (Corbin & Strauss, 2014; Faden et al., 2014; Frankfort-Nachmias et al., 2015). Study participants received information about the voluntary nature of their participation.

Conducting a study that takes up valuable time, resources, and emotions but has a little chance of answering the overarching research question would be unethical (Suresh & Chandrashekara, 2012). I ensured that each participant was over 18 years of age and met minimum criteria for participating in the study. The interview process did not start until Walden University's Institutional Review Board's (IRB) approval. Adhering to

Walden University's IRB guidelines, I conducted every interview while focusing on participants' safety and informed consent. The Walden University IRB approval number for this study 03-04-16-0450850.

Festinger, Dugosh, Marlowe, and Clements (2014) organized the informed consent process into two parts: creating a consent form and presenting the consent information to research participants. Appendix B contains the consent form using simple English to ensure that participants with varying levels of education can easily comprehend the interview questions (Festinger et al., 2014). Once I identified qualified participants, I provided them with a copy of the consent form and reviewed each item in detail. Individualized consent form review was necessary because not every participant will read the entire consent form (Festinger et al., 2014; Frankfort-Nachmias et al., 2015).

To ensure confidentiality, I used fictitious names for study participants and their affiliated organizations. The study did not include any attributes that may lead to an indirect discovery of study participants or organizations. At the conclusion of a study, a researcher should deliver ethical, trustworthy, and meaningful results while ensuring minimal impact on the participants (Abernethy et al., 2014). I collected and stored all the research-related documents in a password-protected area of my personal computer hard drive. Any physical documents will remain stored inside a locked drawer at my residence for a period of 5 years. Finally, I will destroy all research-related data after 5 years, in keeping with the Walden University IRB guidelines (Hamersly, 2015; Tingley, 2015, Sapp, 2014).

Data Collection Instruments

A researcher can function as the primary instrument to collect research data for the study (Cronin, 2014; Draper & Swift, 2011; Kaczynski et al., 2014). Realizing the vital role that a researcher plays during a qualitative study (Draper & Swift, 2011; Kaczynski et al., 2014; Moll, 2012), I was the main data collection instrument and handled the task of collecting, organizing, and analyzing research data. By engaging with the study participants, generating research data, and creating additional knowledge, a qualitative researcher becomes the research instrument (Cronin, 2014; Draper & Swift, 2011; Rubin & Rubin, 2011; Xu & Storr, 2012). Data collection took place using face-to-face interviews, which is the richest form of collecting data, as claimed by several researchers (Al-Yateem, 2012; Englander, 2012; Mealer & Jones, 2014; Trier-Bieniek, 2012). Several authors (Danque et al., 2014; Jacob & Furgerson, 2012; Moll, 2012) pointed out that close-ended questions typically have only two possible answers: “yes” and “no.” Therefore, I used open-ended interview questions to obtain research data.

Interviews can be an effective medium to understand people (Al-Yateem, 2012, Mealer & Jones, 2014; Moll, 2012). Structured, unstructured, and semistructured interviews are the three predominant types of interviews (Bryman, 2012; Cachia & Millward, 2011; Rubin & Rubin, 2011). I followed the semistructured interview format (Appendix A) because, unlike other methods, the semistructured method includes the option for the researcher to start with a set of fixed questions and to introduce follow-up questions (Cachia & Millward, 2011; Englander, 2012; Rubin & Rubin, 2011). Cachia & Millward (2011), Moll (2012), and Palinkas et al. (2013) also pointed out that the

semistructured interview method includes the option for researchers to conduct an interactive session with the study participants and ask open-ended questions to gain real-life perspectives and helpful insights. Therefore, I used the semistructured interview method to interact with study participants and learned about their e-commerce integration experiences.

Interviews with participants took place in-person using the semistructured interview method. As recommended by several authors (Chenail, 2012; Jacob & Furgerson, 2012; Moll, 2012), I conducted the interview session at the time and location that is convenient to each participant. Inspired by the authors of several studies (Cho & Park, 2013; Harvey, 2014; Mealer & Jones, 2014; Thomas & Magilvy, 2011), I obtained participants' consent and audio-record each interview for accuracy and validation. Based on recommendations from the authors of several studies (Jacob & Furgerson, 2012; Ginsberg & Sinacore, 2013; Schiller et al., 2015; Shavers & Moore, 2014), I limited each interview session to approximately 60 minutes.

While the interview process allowed for primary data collection, annual reports, organizational documents, and web sites can also provide additional perspectives (Chen et al., 2014; Gross et al., 2015; Petty et al., 2012). As a part of the quality control measure, I examined company documents of each study participant. More specifically, examination included a review of the organization's business permit, affiliation with other organizations, website, and social media reviews. During the interview, I requested study participants to allow me to review their business permit and share information

about their industry affiliations. Right before the interview, I also reviewed their website for e-commerce functionality and read reviews on social media

Reviewing a company's documents is one of the easiest and cost effective ways to obtain additional information about the organization (Bryman, 2012; Dwan et al., 2014; Vedula, Li, & Dickersin, 2013). Many company documents represent quality and thoughtfulness (Bryman, 2012; Dwan et al., 2014; Vedula et al., 2013). In most cases, company documents are also readily available for review (Bryman, 2012; Dwan et al., 2014; Vedula et al., 2013). On the contrary, reviewing company documents is not always reliable as business leaders may be reluctant to share internal details (Bryman, 2012; Gross et al., 2015; Yin, 2014). Internal data may not be in the correct format resulting in inaccurate data collection (Bryman, 2012; Gross et al., 2015; Yin, 2014).

Realizing that the data collection structure may vary in different parts of the world (Englander, 2012; Nurjannah et al., 2014; Thurkettle, 2014), I respected local norms and culture to collect research data. Al-Yateem (2012), Draper & Swift (2011), and Moll (2012) pointed out that interviewer's ability to create trust with study participant is the most crucial component of the interview protocol. The reliability of research findings and the establishment of trust are two intertwined components of a qualitative study (Bryman, 2012; Mealer & Jones, 2014; Moll, 2012; Thomas & Magilvy, 2011). Member checking, peer examination, and self-reflection are some of the ways researchers can incorporate credibility into their research findings (Reilly, 2013; Thomas & Magilvy, 2011; Winter & Collins, 2015). The member checking method entails a researcher returning the interview data to participants for verification purposes (Harvey, 2014; Reilly, 2013; Saldaña, 2012;

Winter & Collins, 2015). Therefore, I used the member checking method to ensure the validity of the research data. This verification process gave all study participants an opportunity to review their answers and provide additional comments.

Data Collection Technique

Based on other studies (Chenail, 2012; Jacob & Furgerson, 2012; Moll, 2012), the data collection technique in this study included interviews using open-ended questions. As suggested by the authors of several studies (Dworkin, 2012; Hanna, 2012; Miller et al., 2011), I interviewed 3 leaders of SME from the manufacturing industry in western India. The interview is an ideal format to use for interacting with people and understanding the rationale behind their decisions (Englander, 2012; Harvey, 2014; Mealer & Jones, 2014; Rabionet, 2011). In other words, researchers can include additional social or environmental attributes to bolster their traditional interactions with study participants. Inspired by the authors of other studies (O'Reilly & Parker, 2012; Kemner et al., 2015; Robinson, Brennan, Cobb, & Dean, 2015; Simmons et al., 2015), my observations included the e-commerce platforms used as well as participants' behavior, level of cooperation, anxiety, frustration, and clarity of their verbal and nonverbal language.

As suggested by several authors (Englander, 2012; Nurjannah et al., 2014; Trier-Bieniek, 2012), I built rapport with research participants by (a) learning more about them, (b) understanding their business, (c) creating a relaxed environment during the interview, (d) being a good listener, (e) promoting open exchange of dialogue, and (f) showing genuine interest in what they have to say. Bryman (2012), Moll (2012), and Uldam and

McCurdy (2013) believed that observation is essential to understand participants' assumptions, motivations, and strategies. The target population for the study included business leaders of SME operating in the manufacturing sector in the state of Gujarat. As per Walden University's IRB rules (Hamersly, 2015; Tingley, 2015, Sapp, 2014), data collection process started when I received IRB approval.

After receiving IRB approval, few experts not affiliated with this study reviewed the quality and validity of the interview questions. I incorporated their suggestions and feedback to further refine my interview questions to obtain the best possible amount and quality of information from study participants. The authors of the several studies (Migliori et al., 2012; Raijmakers et al., 2012; Yunus, Nordin, Salehi, Embi, & Salehi, 2013) engaged industry specialists to create a panel of experts to evaluate overall structure of their interview questions. I sent out research invitations (see Appendix C) to qualified study participants after a panel of experts' review.

Once the participants agreed to be a part of the study, I sent them the informed consent form (see Appendix B) for their review and signature. As suggested by several authors (Bryman, 2012; Cachia & Millward, 2011; Frankfort-Nachmias et al., 2015), I contacted participants to confirm the date and time of the interview after receiving their signed consent form. While an in-person interview generally lasts longer and produces richer research data (Englander, 2012; Irvine, Drew, & Sainsbury, 2013); telephone interviews follow an agenda-driven format because participants are multi-tasking or in time-constrained situations (Bryman, 2012; Cachia & Millward, 2011; Trier-Bieniek, 2012). Therefore, I met in-person with study participants to collect study related data.

Inspired by the authors of other studies (Gagliardi, 2012; Rubin & Rubin, 2011; Shavers & Moore, 2014), I allocated approximately 60 minutes for each interview. Audio recording is one of the most popular methods to record the interview conversation (Al-Yateem, 2012; Rabionet, 2011; Rubin & Rubin, 2011; Trier-Bieniek, 2012). Similar to the strategies used in other studies (Al-Yateem, 2012; Rabionet, 2011; Simmons et al., 2015; Trier-Bieniek, 2012), I obtained participant's consent before starting the recording on my smartphone and start the interview.

Asking situational questions during the interview is paramount for gaining insight from study participants (Englander, 2012; Moll, 2012; Trier-Bieniek, 2012). Therefore, the interview included introductions, a research overview, and open-ended questions so that participants could answer the interview questions in detail. Studies of several authors (Mealer & Jones, 2014; Rabionet, 2011; Unluer, 2011) compared interviewing to a window to peek inside participants' experiences. Based on several authors' suggestions (Al-Yateem, 2012; Rabionet, 2011; Trier-Bieniek, 2012), I asked additional or probing questions to participants to obtain even more specific data. Cachia and Millward (2011), Irvine et al. (2013), and Rubin and Rubin (2011) suggested observing each participant's body language and tone during the interview to continually assess a participant's comfort level.

Face-to-face interviews provide the best way for a researcher to interact with study participants (Irvine et al., 2013; Mealer & Jones, 2014, Simmons et al., 2015). Unlike other formats, a researcher is able to observe, connect, communicate, and interact with study participants during a face-to-face interview format (Irvine et al., 2013;

Simmons et al., 2015; Trier-Bieniek, 2012). A face-to-face interview requires participant to focus on the interviewing process, resulting in quality data collection. Researchers can observe participants' body language to determine their comfort level and adjust the pace of the interview while performing the face-to-face interview (Irvine et al., 2013; Simmons et al., 2015; Trier-Bieniek, 2012).

While the face-to-face interviewing method offers multiple benefits, several drawbacks exist. During the face-to-face interview, usually there is only one individual representing the entire organization; therefore, answers to all the interview questions may not reflect the entire organizational leaders' views (Bryman, 2012; Onwuegbuzie & Byers, 2014; Simmons et al., 2015). The face-to-face interviewing method is costlier than other interviewing methods (Hanna, 2012; Irvine et al., 2012; Vogl, 2013). Due to logistical and financial reasons, the sample size tends to be smaller than other methods when conducting face-to-face interviews (Hanna, 2012; Trier-Bieniek, 2012; Vogl, 2013). Based on the topic, participants may not be comfortable answering interview questions in a face-to-face format (Block & Erskine, 2012; Trier-Bieniek, 2012; Vogl, 2013).

Cho and Park (2013), Elo et al. (2014), and Moll (2012) highlighted several areas to maintain trustworthiness of the research process. Based on these studies, I reviewed the interview recordings and transcripts carefully and critically to ensure inclusion of all the key information without deconstructing the participants' versions of the story. Participants can review their answers and obtain reconfirmation when member checking is used (Harvey, 2015; Houghton, Casey, Shaw & Murphy, 2013; Reilly, 2013; Winter &

Collins, 2015). For these reasons, I used member checking to add an additional layer of accuracy on the research data.

As suggested by the authors of several studies (Bradley et al., 2015; Moll, 2012; Nurjannah et al., 2014; Simmons et al., 2015), I transcribed each interview into a Microsoft Word document. As Moll, Nurjannah et al., and Shavers and Moore (2014) suggested, I compiled a brief summary of the emerging themes and sent a list of these themes to participants with the instructions to agree, disagree, or provide additional comments. This mechanism provided an additional opportunity for participants to reflect upon their original views, verify their answers, and possibly add additional information. Member checking is a valid tool to use during the data collection phase of the research to validate participants' experiences and to increase research credibility (Harvey, 2015; Reilly, 2013; Shavers & Moore, 2014; Winter & Collins, 2015). Member checking provides an exhaustive approach to data trustworthiness by requiring researcher to summarize the interview conversation, returning the summary to study participant, and allowing participants to confirm their content.

Data Organization Techniques

Data organization is one of the essential phases of the qualitative research process (Elo et al., 2014; Fein & Kulik, 2011; Marshall et al., 2013). As included in several studies (Hamersly, 2015; Tingley, 2015, Sapp, 2014), I stored interview invitations, signed consent forms, audio recordings of interviews, interview transcripts, and other study-related documents in a password-protected folder on my personal computer hard drive. As suggested by the authors of various studies (Hamersly, 2015; Mealer & Jones,

2014; Sapp, 2015; Tingley, 2015), I also maintained an encrypted backup copy of all the documents on a password-protected removable storage device. More specifically, I labeled, tagged, and digitally stored the research data in individual folders for enhanced search functionality. Realizing that confidentiality is a crucial part of the privacy process (Gibson et al., 2012; Mealer & Jones, 2014; Schiller et al., 2015), I replaced each participant's name with pre-determined alphanumeric codes (Participant 01) before storing the data. I used the same generic code in all research-related data, including on audio recordings, signed consent forms, and interview transcripts.

Organizing research data into concepts or themes increases the reliability of the study (Elo et al., 2014; Ginsberg & Sinacore, 2013; Schiller et al., 2015). Reflexivity and qualitative research are closely associated with each other (O'Reilly & Parker, 2012; Walker, Read, & Priest, 2013). As Teusner (2015), Gibson et al. (2012), and Walker et al. suggested, I used a reflective diary and research logs during my research to provide transparency to data collection, data analysis, and data interpretation methods. Maintaining a reflective diary is a frequently used process that involves keeping a journal with a list of personal experiences and observations (Houghton, et al., 2013; O'Reilly & Parker, 2012; Teusner, 2015). Researchers use a reflective diary to document the process used to make decisions and to develop themes (Ginsberg & Sinacore, 2013; Houghton et al., 2013; Teusner, 2015). I used a reflective diary to outline my study-related experiences, potential challenges, and overall research process.

Unlike the reflective diary, which contains data that are subject to interpretation, a research log contains structured and factual information (Bryman, 2012; O'Reilly &

Parker, 2012; Walker et al., 2013). Information from the reflective diary may improve existing research processes, leading to the enhancement of the future research projects (Gibson et al., 2012, Teusner, 2015; Walker et al., 2013). I maintained a research log to keep track of my searches, the purpose of each search, and the outcome of each search.

Several authors (Hamersly, 2015; Sapp, 2014; Tingley, 2015) have stated the IRB guidelines that a researcher must follow when conducting a research study. To comply with Walden University's IRB guidelines, I stored all the research-related documents on a hard drive and any physical documents in a locked cabinet at my residence. I will keep this data for a period of 5 years. After that time, I will demagnetize and destroy the hard drive and will shred every paper document.

Data Analysis

Using the qualitative research method, a researcher is able to collect, organize, analyze, and interpret research data effectively (Bryman, 2012; Elo et al., 2014; Moll, 2012). Readers may interpret the meaning of the research data using data analysis (Elo et al., 2014; Moll, 2012; Walshe, 2011). Hamersly (2015), Moll (2012), and Rabionet (2011) emphasized selecting an appropriate method for data analysis that can directly address interview questions and provide thorough results. I utilized several methods to analyze research data to generate comprehensive results that can identify attributes for successful e-commerce adoption by SME leaders in western India. In research, triangulation involves using multiple data sources to reach a conclusion (Bryman, 2012; Davey, Davey, & Singh, 2015; Franco et al., 2014). There are four types of triangulation, including (a) data triangulation, (b) investigator triangulation, (c) theory triangulation,

and (d) methodological triangulation (Bryman, 2012; Davey et al., 2015; Franco et al., 2014). I used methodological triangulation in my research study. Methodological triangulation involves the use of multiple qualitative methods producing comprehensive data and providing confirmation of data (Bekhet & Zauszniewski, 2013; Davey et al., 2015; Houghton et al., 2013; Walsh, 2013). More specifically, I used interviews and inspected company documents. The authors of several studies (Kemner, Stachecki, Bildner, & Brennan, 2015; Robinson, Brennan, et al., 2015; Robinson, Dean, Cobb, & Brennan, 2015) indicated that researchers making observations can focus on participants' verbal and nonverbal communication, resulting in rich data collection. I observed participant's verbal and nonverbal language and the interview location's surrounding environment and reviewed non-proprietary documents.

As outlined by the authors of several studies (Chenail, 2011; Palinkas, 2013; Walshe, 2011), I used multiple methods as part of the data analysis phase. These methods included member checking and methodological triangulation. I also used a graphical query and visualization tool, NVivo 11 for Windows software, as a tool to analyze the data. While member checking involves study participants reviewing their own responses and contribution for accuracy (Reilly, 2013; Shavers & Moore, 2014; Winter & Collins, 2015), the interview protocol is a guide that consists of interview questions, scripts, reminders, and prompts for the interviewer (Chenail, 2011; Jacob & Furgerson, 2012; Shavers & Moore, 2014). Methodological triangulation refers to combining multiple ways to study phenomena leading to a comprehensive data collection and data validation procedures (Duxbury, 2012; Frankfort-Nachmias et al., 2015; Kaczynski et al., 2014;

Walshe, 2011). Finally, NVivo 11 is a data organizational and analytical software, allowing researchers to analyze research data (Castleberry, 2014; Gould et al., 2015; Schiller et al., 2015).

Authors of several studies (Chenail, 2012; Schreier, 2012; Unluer, 2011) believed that the data analysis is a crucial phase because it comprises all the research material, standard processes, and researcher's skillfulness. Therefore, for my study, I provided a data analysis framework for successfully adopting an e-commerce platform among SME business leaders in manufacturing segments from western India. As suggested by several studies (Bradley et al., 2015; Moll, 2012; Nurjannah et al., 2014), I reviewed every interview recording and transcribed it into a Microsoft Word document.

I uploaded all verified transcripts to a computer-assisted qualitative data analysis software (CAQDAS) application for coding and analysis, as recommended by researchers (Castleberry, 2014; Chandler & Reynolds, 2013; Schiller et al., 2015). The coding process was used to group the data into themes (Chandler & Reynolds, 2013; Nymark et al., 2014; Schiller et al., 2015), which helped me analyze and articulate research data.

The role of a software is an essential component of the data analysis phase (Bradley et al., 2015; Castleberry, 2014; Sotiriadou, Brouwers, & Le, 2014). Created by QSR International, NVivo is one of the popular CAQDAS applications that can analyze and report on the statistical attributes of the data (Bradley et al., 2015; Castleberry, 2014; Sotiriadou et al., 2014). I used NVivo 11 for Windows software to analyze the data to identify themes.

While NVivo 11 software offers an intuitive user interface, a researcher still has to manage the entire process (Brandão, 2015; Castleberry, 2014; Sotiriadou et al., 2014). I uploaded interview transcripts, entries from my reflection diary, audio recordings, and all other research-related documents to NVivo. Researchers use NVivo reporting tools to verify, analyze, and interpret the research data (Bradley et al., 2015; Castleberry, 2014; Sotiriadou et al., 2014). After uploading all the research data, I used NVivo to collect, organize, and analyze all the content, producing codes and themes.

Reliability and Validity

Reliability and validity corresponds to objectivity and credibility of a study (Bryman, 2012; Frankfort-Nachmias, 2015; Silverman, 2011). Considering that there are no universal standards for evaluating qualitative research studies (Bongoni et al., 2013; Danque et al., 2014; Noble & Smith, 2015), researchers need to focus on the key attributes, including (a) dependability, (b) credibility, (c) transferability, and (d) confirmability (Bongoni et al., 2013; Danque et al., 2014; Elo et al., 2014) to enhance the validity of their studies. Evaluating the quality of research becomes imperative, particularly when study results are implemented in actual practice (Noble & Smith, 2015; O'Reilly & Parker, 2012; Teusner, 2015).

Reliability

The concept of reliability relates to quantitative research (Bryman, 2012; Cope, 2014; Noble & Smith, 2015). To produce compelling study results, the instruments and measurements of a study must be reliable. Dependability refers to the consistency of outcomes under similar conditions (Cope, 2014; Elo et al., 2014; Polit & Beck, 2012). A

list of fine-tuned interview questions, reviewed by a panel of experts, one of the study instruments, can help the researcher produce dependable data (Chenail, 2011; Ginsberg & Sinacore, 2013; Winter & Collins, 2015). Research studies tainted with bias serve no purpose (Bryman, 2012; Kolb, 2012; Teusner, 2015).

As suggested in several studies (Elo et al., 2014; Gagliardi, 2012; Jacob & Furgerson, 2012), I used a panel of experts to refine my interview questions to yield dependable data. As mentioned by several authors (Al-Yateem, 2012; Bryman, 2012; Rabionet, 2011; Trier-Bieniek, 2012), interview setup included the same list of questions, follow-up questions, and overall consistency to generate dependable answers. The member checking method is another way to confirm data dependability because the researcher can compare the data captured during and after the interview (Harvey, 2015; Houghton et al., 2013; Reilly, 2013; Winter & Collins, 2015).

More specifically, the member checking method entails researchers sending their findings back to the participants for verification (Houghton et al., 2013; Marshall & Rossman, 2011; Reilly, 2013). Member checking is a great way to increase the dependability of the study by ensuring that researcher bias has not tainted the facts (Kolb, 2012; Reilly, 2013; Shavers & Moore, 2014).

Researchers recording interview sessions can review and reflect upon what participants said in the interview session, thereby producing more reliable transcripts and themes (Al-Yateem, 2012; Rabionet, 2011; Teusner, 2015; Trier-Bieniek, 2012). Asking interviewees to explain their answers in sufficient detail reduces opportunities for researchers to add their biases. I asked participants to elaborate their answers if they lack

depth or relevance. To avoid tainting participants' perspectives, I did not discuss any details about the nature of the study prior to the interview, producing more reliable results. As suggested by several authors (Chenail, 2011; Jacob & Furgerson, 2012; Teusner, 2015), I followed the interview protocol and did not introduce any new questions to maintain consistency and increase reliability.

Validity

The authors of several studies (Cope, 2014; Elo et al., 2014; Teusner, 2015) indicated that credibility, transferability, and confirmability are part of the research validation framework. Validation is one of the crucial components for bringing confidence to qualitative studies (Reilly, 2013; Teusner, 2015, Thomas & Magilvy, 2011). Instead of the fieldwork, case study research involves the use of an iterative process for data collection methods, which compares within and across cases for research validity (Castleberry, 2014; Duxbury, 2012; Teusner, 2015). When there is only one researcher analyzing the data, the credibility of the analysis depends on the inclusiveness and representativeness of the data as a whole (Chiliya et al., 2011; Elo et al., 2014; Thomas & Magilvy, 2011). Cope (2014), Danque et al., (2014), and Teusner (2015) indicated that thoroughly reading the interview transcripts allows the researcher to establish credibility.

Based on several author's suggestions (Cho & Park, 2013; Elo et al., 2014; Ginsberg & Sinacore, 2013; Moll, 2012), I performed a thorough review of the interview transcripts to ensure inclusion of every aspect of the participants' perspectives. My focus also remained on the similarities and differences within and across study participants

(Draper & Swift, 2011; Teusner, 2015; Thomas & Magilvy, 2011). As Houghton et al. (2013), Reilly (2013), and Saldaña, (2012) suggested, I performed member checking after transcribing and before analyzing data to ensure the validity of the captured interview data.

While dependability refers to the stability and consistency of the data, transferability refers to the applicability of the study results from one study to another (Cope, 2014; Elo et al., 2014; Polit & Beck, 2012). Following Cope, Elo et al., and Teusner (2015)'s suggestions, I aimed to provide high-quality results by selecting appropriate study participants, providing detailed demographics information, performing extensive data analysis, and presenting results in an intuitive format to increase the transferability of my study.

Confirmability, which takes place after credibility, transferability, and dependability are established (Cope, 2014; Saldaña, 2012, Thomas & Magilvy, 2011), refers to researchers' ability to show that the research data are the actual interpretation of study participants without the researchers' biases (Bryman, 2012; Kolb, 2012; Polit & Beck, 2012). As Kolb (2012), Thomas and Magilvy, and Teusner (2015) recommended, I made conscious efforts to listen to each interviewee and record my thoughts, insights, and biases. As Elo et al., Thomas and Magilvy, and Teusner suggested, the focus remained on the transcribed text, establishing a connection between data and results, and using existing literature review to increase the conformability of the results.

Methodological triangulation involves utilizing multiple sources for providing confirmation of study findings (Bekhet & Zauszniewski, 2013; Houghton et al., 2013;

Walsh, 2013). I used interviews and inspected company documents. I also continued with data analysis until data saturation occurred. Saturation is the point where additional data collection and analysis can no longer provide any new, meaningful information (Kolb, 2012; Marshall et al., 2013; O'Reilly & Parker, 2012). Without data saturation, a researcher is unable to derive conclusive findings (Elo et al., 2014; O'Reilly & Parker, 2012; Teusner, 2015); therefore, I used data analysis, my research diary, methodological triangulation strategies, expert opinion, literature review, and member checking to ensure there were no additional data that can add any meaningful information to the study.

Transition and Summary

Section 2 included the methodology that I used in this study to understand the successful deployment experiences of e-commerce platforms by leaders of manufacturing SME in western India. In addition, I highlighted the participant recruitment life cycle, research method, research design cycle, population and sampling techniques, and the ethical considerations. Focusing on the overarching research question and literature review, I described the data collection instruments, data collection technique, and data organization techniques in detail. Finally, I addressed the data analysis techniques with a focus on reliability and validity.

Section 3 includes the overview of the study, presentation of the findings, applications to professional practice, implications for social change, recommendations for action, recommendations for further study, reflections, and study conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multi-case study was to explore the strategies that Indian SME leaders in the manufacturing sector used to adopt e-commerce platforms to expand their businesses. As a part of this study, I used Roger's (1995) DOI theory to understand the types of hurdles the leaders of SME have to overcome before successfully adopting e-commerce solutions in their businesses. I collected data by using semistructured interview questions, conducting face-to-face interviews, observing external environments, reviewing participants' websites, scanning organizations' social media presence, and performing document reviews. After recording the interviews, I transcribed each interview into the Microsoft Word software and then used NVivo 11 for Windows software to analyze and code the content of those transcripts. After performing detailed data analysis, the following themes emerged:

1. The marketplace model works well for SME leaders before launching their own e-commerce platform.
2. Finding well-trained staff to support an e-commerce platform is difficult.
3. Excessive governmental requirements are hindering the growth of e-commerce.
4. Product returns, infused with fraudulent practices, limit SME leaders' business expansion efforts.

I will expand upon each of these themes in the next section, including the summary of study participants' answers to each interview question.

Presentation of the Findings

The central research question of this study was as follows: *What strategies do Indian SME leaders in the manufacturing sector use to adopt e-commerce platforms to expand their businesses?* The purpose of this qualitative multi-case study was to explore the strategies of 3 SME leaders from western India's manufacturing segment who successfully adopted an e-commerce platform in their businesses. The findings of this study highlight challenges faced by study participants and how they were able to overcome those challenges to establish an online presence, generate higher revenue, and expand their geographic reach. This study's findings came from reviewing company documents and conducting face-to-face interviews with 3 SME leaders. Face-to-face interviews provided opportunity for participants to share their views and experience, resulting in rich data collection. Observing participants' nonverbal communication and their surrounding environment allowed me to validate participants' verbal communication, bringing additional clarity to the study. Document review confirmed the existence of each company and the company's valid business permit to conduct commerce in the State of Gujarat. To ensure diversity and minimize bias, the participant pool included SME leaders from different verticals within the manufacturing segment, including garment, signage, and plastic manufacturing. Participant identification took place using an alphanumeric code. For example, I identified participant 1 as P01. After conducting coding and data analyses, the following four themes emerged:

1. The marketplace model works well for SME leaders before launching their own e-commerce platform.

2. Finding well-trained staff to support an e-commerce platform is difficult.
3. Excessive governmental requirements are hindering the growth of e-commerce.
4. Product returns, infused with fraudulent practices, limit SME leaders' business expansion efforts.

Theme 1: The Marketplace Model Works well for SME Leaders Before Launching their Own E-Commerce Platforms

The outcome of this theme emphasized the need to start with the marketplace model when getting started with e-commerce. All three participants in the study mentioned that online marketplaces, such as Amazon.in, Flipkart.com, or eBay.in offer quick access to e-commerce without investing in a dedicated e-commerce platform. Participant 01 (P01) and Participant 03 (P03) mentioned that it is better for SME leaders to start with a marketplace model because there is no upfront cost for marketing. Ghobakhloo et al. (2011) made the same claim, as they recommended the use of existing online marketplace models for new SME leaders. Marketplaces, such as Amazon.com, can facilitate web hosting, storage, infrastructure, marketing, technical support and payment processing activities for SME leaders, allowing them to reach millions of potential customers (Ritala, Golnam, & Wegmann, 2014). Once customers make an initial purchase from a company's virtual storefront on a marketplace, the SME leaders can entice them with additional discounts to buy directly from their own website, instead of going to the marketplace. SME leaders can implement this strategy by emailing or physically including a discount coupon to a customer with their shipment. Such actions

can result in a direct sale from an SME owner to a customer, eliminating the need for the SME leader to pay for any commission to the marketplace.

P01 and participant 02 (P02) indicated that while a marketplace is a great way to start selling online, SME leaders using the marketplace may end up paying more in the form of commissions and fees to marketplace operators. SME leaders that use their own e-commerce platform can service their customers directly and offer them additional discounts. Referring to a consignment model, P03 indicated that using a marketplace in the early stages to store inventory helped him focus on marketing and employee training efforts. In a consignment model, a marketplace operator stores the entire inventory for the retailer and payment is made to the retailer based on sales (Hu, Li, & Govindan, 2014). Once a retailer starts to sell many products, using the marketplace can become expensive because of commissions and potential product returns. SME leaders can begin their e-commerce presence using a marketplace presence to experiment with ecommerce without making any commitment or large-scale investment. SME leaders can also take advantage of learning seminars offered by marketplace providers.

Once a product is sold through the marketplace, the selling SME leaders receive the net amount, which is directly deposited into SME's bank accounts on a predetermined schedule. This is a major shift from the traditional business model where manufacturers have to give out their products to distributors on credit and then continuously follow-up to check on the inventory and collect their monies. P03 believes that many marketplaces do not charge anything until a product is sold and, consequently, SME leaders should use

an e-commerce channel because it can be a cost effective way to showcase their products in front of millions of potential buyers.

Massive amounts of data from the marketplaces in the form of logs, reports, trends, and charts can help SME leaders optimize their product description, category, and images, catering to their customers' browsing patterns while identifying the most and least sold products. P01 added that those leaders of SME who are looking to build their own e-commerce platform could get a better idea on how to architect their platform by reviewing marketplace reports on server usage, memory utilization, storage, and other Internet traffic related data.

Many small companies are founded by an individual with a singular focus on a specific product but they may lack broader business prospective (Gupta & Gupta, 2013). The marketplace model can be beneficial for such individuals where all the backend processes are fulfilled by a third party. The marketplace model has a greater chance of adoption by SME leaders because it offers more appealing advantages than traditional technology.

The findings related to the theme of developing a new channel are consistent with Rogers' (2003) DOI theory referring to the fact that innovation propagates over time. This tie was referenced in a joint study by Deloitte and ASSOCHAM (2015), indicating how the e-commerce industry in India started from \$3.8 billion in 2009, went to \$17 billion in 2014, and expected to surpass \$100 billion by 2020. Similarly, more consumers are going online because of an increased use of smart phones and tablets supported by 3G/4G, Wi-Fi, and high-speed broadband.

Theme 2: Finding Well-Trained Staff to Support an E-Commerce Platform is Difficult

This theme matches one of the major themes that emerged from the literature review. All three participants in my study mentioned that finding well-trained staff to support their e-commerce platform was difficult. Participants felt that there were not a sufficient number of trade schools in the state to produce qualified employees for the technology industry. Gupta and Gupta (2013) indicated that the lack of qualified staff and the retention of qualified employees were the most important reasons limiting business leaders' capabilities to innovate. Most of the information technology related business organizations are concentrated in south India, making it easy to find tech-savvy employees in the south. However, all study participants indicated that the same level of quality and quantity of technology talent is not available in the rest of India.

All study participants indicated that once an employee is hired, the employee becomes productive in 45 to 60 days. P01 and P02 expressed their fears by indicating that as soon as employees undergo training to learn how to work effectively on an e-commerce platform, they are more likely to leave the organization for either larger companies or more money. The e-commerce channel in India is not sufficiently profitable to allow SME leaders to hire a large number of tech-savvy employees and pay them well.

All participants indicated that qualified employees may not come from local areas and, consequently, SME leaders could make all the arrangements to relocate these hard-to-find employees, just to find out that these employees are more likely to leave the job within a short period of time due to a lack of a support system, unfamiliar culture, and/or

a lack of challenging work. While P01 and P02 mentioned that other sets of qualified employees would like to earn more money than SME leaders can afford to pay, P03 mentioned that qualified employees can be well-compensated because an effective e-commerce business model can eliminate a retail presence, removing the need for traditional employees, delivery vehicles, and other administrative and overhead costs. P01 and P03 mentioned that companies from Saudi Arabia hire many Indians, creating a vacuum of technical talent in the local market. Leaders of SME are more focused on day-to-day operations compared to long term strategic planning (Gupta & Gupta, 2013).

SME leaders may play a key role in developing India's economic future (Gupta & Gupta, 2013). Not having qualified employees hinders SME leaders' abilities to expand their businesses. P01 suggested that the solution to this problem is to hire candidates with basic computer knowledge and then train them to perform various tasks specific to the business. P01 and P02 agreed that finding a good candidate can be challenging and it may take a few months before discovering if an employee is a good match for the organization. P03 indicated that paying a little more than market salary can help SME leaders to retain their employees. The findings related to this theme are consistent with the compatibility component of Rogers' (2003) DOI theory. Compatibility is the degree to which innovation is perceived as consistent with existing values, past experiences, and adopters' needs (Rogers, 2003). Lack of skilled workers may affect organizational leaders' ability to adopt e-commerce platforms. Advantages of deploying e-commerce platforms may entice SME leaders to upgrade the technical skills of their employees via training and mentorship.

Theme 3: Excessive Governmental Requirements Hinder the Growth of E-Commerce

Gupta and Gupta (2013) indicated that SME are more vulnerable to the external environment due to their smaller size. P01 and P03 mentioned that e-commerce is still a fairly new phenomenon in India and, therefore, state government officials are not aware of all the e-commerce related nuances. For instance, many government officials are enforcing the same traditional rules on every intrastate, interstate, and international shipments. This process includes filling out a declaration form on the government's website, obtaining a unique barcode and then including that barcode on every shipment. P02 and P03 mentioned that they had to hire additional employees to comply with this requirement. P01 and P02 indicated that many times the states' websites are down, hindering the departure of their shipments. Delayed shipments can result in higher costs to SME leaders. P01 indicated that he or she had met with other leaders of SME and held a meeting with the municipal tax commissioner to explain the challenges they are facing. While there are no clear solutions in place, both parties came up with a workaround to avoid some of the disadvantages of the bureaucratic process. P01 pointed out that federal government officials are now looking at this matter.

P02 and P03 claimed that the government should clearly publish the guidelines for shipping, taxes, and duties for the benefit of SME leaders. In a joint study, Deloitte and ASSOCHAM (2015) advocated for passage of dedicated e-commerce laws in India to form an e-commerce specific legal and regulatory framework. Offering educational seminars to SME leaders can also assist in promoting e-commerce in the state. P03

indicated that interpreting e-commerce laws and associated tax codes is becoming difficult, making compliance an ongoing challenge for tax and legal professionals. Incorrect advice from tax professionals is costing SME leaders significant losses.

The enforcement of intellectual property laws in e-commerce is very difficult to administer in India. P03 indicated the any kind of litigation can take decades due to inefficient processes and an extensive backlog of other cases. People assume that just because content is available on the Internet, they can use it freely. This lack of enforcement of intellectual property laws reduces the benefits and levels of innovation of new designs, products, or solutions, negatively affecting SME and the overall economy. The findings from this theme are consistent with the complexity component of Rogers' (2003) DOI theory. Excessive complexity, especially related to interstate and international transactions, equates to larger obstacles to adoption and reduces the rate of adoption. This tie was referenced in a joint study by Deloitte and ASSOCHAM (2015), indicating how Indian government officials are working with Economic Cooperation and Development (OECD) and Group of Twenty (G20) countries to adopt new code to facilitate e-commerce related transactions.

Theme 4: Product Returns, Infused with Fraudulent Practices, Limit SME Leaders' Business Expansion Efforts

Within an e-commerce model, online purchases involve two steps. In the first step, a company lists its products on a website with pictures, product information, usage, and other related information. The second step involves a customer reviewing product information, evaluating the seller's credibility, and committing to the purchase (Li, Xu, &

Li, 2013). It is crucial to understand that while purchasing products online is convenient, customers are not able to experience the product until receiving it (Hu et al., 2014; Li et al., 2013). For this reason, the rate of product return can be higher for online sales than in traditional retail (Hu et al., 2014). P03 argued that many consumers are not aware of the characteristics of the products they are buying. Many customers are only driven by cheaper prices, and are unable to differentiate between original and counterfeit products. This can trigger more unnecessary product returns for the e-tailer.

Ernst and Young (2012) reported that while credit cards are the most popular method of payment for online transactions around the world, Indian consumers use the COD method for 80% of online transactions. All study participants believe that the lack of credit cards and trust in e-tailers has fueled the use of the COD model in India. In the COD method, consumers pay cash after the product is delivered to them. Knowing that there is nothing at stake, Indian consumers are ordering products without reading the product descriptions. P01 and P03 believe that when the product arrives, many consumers return the item because either they do not need the product or they realize that they ordered the wrong product. P01 and P03 indicated that many times consumers are intentionally ordering a product, such a clothing, for a one-time use and, then, returning it. In some cases, consumers order one item and intentionally send back another product, committing fraud and increasing the cost for SME leaders. P01 shared with me the images of products that were returned to P01's SME. Resource-strapped SME leaders usually write off these incidents as a business loss without taking any legal actions.

Unfortunately, COD is not available in many parts of India due to legal, security, and logistic reasons. The COD model is also not streamlined because courier companies have to coordinate with the buyer and find a suitable time to coordinate the delivery (Bansal, 2013). All study participants are using third-party companies to facilitate order delivery and manage COD. In such cases, the third party will ensure the delivery, consolidate all the cash, take out their commission, and then deliver the cash to the merchant. This process is lengthy and inefficient. To overcome this challenge, delivery representatives are providing an option to customer to pay via credit card after delivering the product. Several customers, skeptical of not receiving the order, may decide to pay using a credit card after receiving their product. This theme is consistent with the trialability component of Rogers' (2003) DOI theory. When an innovation is tried for a longer period, many adopters are likely to change or modify the innovation, resulting in faster adoption. This theme was referenced in a joint study by Deloitte and ASSOCHAM (2015), indicating how e-commerce companies are building out their own distribution networks and instituting specific product return policies. E-commerce companies are also offering innovative services including same-day delivery, cashback offers, product replacement warranties, and mobile wallets.

Applications to Professional Practice

The findings from this study include SME leaders' perception that in order to remain competitive they needed to (a) use marketplace model before launching their own e-commerce platform, (b) incorporate management strategies to acquire, train, and retain employees, (c) understand government regulations related to e-commerce transactions, and (d) deploy well-crafted product return policies. From these findings, SME leaders can gain valuable insights on how to switch from a marketplace e-commerce platform to a dedicated e-commerce platform, find and retain well-trained employees, manage excessive governmental regulations, and address fraudulent product returns. Responsible for driving economic growth, SME form the backbone of the manufacturing sector in India (Das & Das, 2014).

Bansal (2013) pointed out that while time savings have been reported as a primary motivator for online shopping, customers' lack of trust towards e-tailers is the biggest inhibitor to wider e-commerce acceptance in India. The growth of the global e-commerce market has resulted in thousands of new e-tailers competing to win the largest possible share of customers (Deloitte & ASSOCHAM, 2015). These models include inventory, social networking, aggregator, e-marketplace, and transaction broker models (Deloitte & ASSOCHAM, 2015).

Even though 68% of the population in India resides in rural areas with almost no access to the Internet (The World Bank, 2015), Internet penetration in India grew to over 300 million users in 2014 (Deloitte & ASSOCHAM, 2015). The growth of the Internet and e-commerce is driven by only 30% of people living in major cities across India

(Bansal, 2013). Poor infrastructure, high costs of opening and operating retail stores that are passed along to shoppers, access to limited items in traditional retail, increase in traffic in cities, and the busy lifestyle of middle-class families will likely continue to cause shoppers to look for e-commerce transaction options in India (Bansal, 2013). These statistics indicate enormous potential for SME leaders willing to create quality products, develop sustainable logistics, and provide efficient customer service.

E-tailers in India face multiple challenges, including (a) competition from other e-tailers; (b) lack of a robust supply chain; (c) extensive reliance on inefficient payment methods, such as cash on delivery; and (d) excessive product returns. Recognizing these issues, Bansal (2013) indicated that the government of India is committed to work with SME leaders to reduce these obstacles by implementing sanctions and tougher legislations affecting financial institutions, e-tailers, and the general public.

SME leaders need to make strategic decisions to control and manage their operations and to adjust their attitudes toward business growth and risk (Jayaram et al., 2014). Knowing that many social and cultural considerations involved in online shopping exist, leaders of SME should analyze possible obstacles to shopping success and devise customized product or service offerings to encourage their customers to visit and make purchases (Bansal, 2013). The knowledge gained in this study could help SME leaders implement strategies to prepare themselves to deal with obstacles and challenges effectively. SME leaders might use the findings of this study to learn how to manage operational challenges while running a successful e-commerce business.

For example, people in Gujarat could address the scarcity of workers possessing e-commerce and technology skills by hiring telecommuting programmers and e-commerce platform administrators who are located in south India. The use of piecework contracts and payment after performance at slightly above wage rates for similar job skills would ease the SME leaders' management of telecommuters. For SME leaders experiencing high costs of hiring skilled information professionals, an alternative is hiring local employees possessing computer skills and training them in e-commerce related technology, offering them retention bonuses based on profitability of the e-commerce results. Perhaps the industry trade association may support local schools and universities by offering traditional and vendor certification classes on web design, e-commerce, and network security. This multipronged approach may create a sustainable model whereby SME leaders can find local talent to manage their e-commerce infrastructures.

Product returns and fraudulent practices are a growing problem for retailers of all types. U.S. e-tailers experience return rates up to 30% of sales, compared to 9% to 10% of bricks-and-mortar store sales; however, leading e-tailers are now showing the industry ways to dramatically reduce product returns (Donaldson, 2015). Surveys of U.S. online returns showed that 25% of product returns are because of the product being different to what the buyer expected from the online product portrayal (Donaldson, 2015). An additional 17% of product returns are because of misfitting products (Donaldson, 2015). A U.S. clothing e-tailer, which provided an online comparison of the size of the product the online shopper was viewing with the size of other products the same person had

previously purchased, subsequently saw product returns decline by half (Donaldson, 2015). E-tailer packing errors and shipment of the wrong goods account for an additional 16% of product returns (Donaldson, 2015). U.S. e-tailers that implemented paperless scanner technology to reduce packing errors experienced a 75% reduction in product returns (Donaldson, 2015). U.S. e-tailers, which have extended the time frame during which they accept product returns, have seen a decline in product returns and an increase in sales, possibly because the extended product return opportunity builds trust in consumers (Donaldson, 2015).

Fraudulent practices are more complex for e-tailers to manage. Some use psychological approaches. For example, Nordstrom department store uses specific language in its product return policy to set expectations of honesty and integrity by stating that “our philosophy is to deal with you fairly and reasonably; we hope you will be fair and reasonable with us as well” (Nordstrom, 2016, para. 1).

Implications for Social Change

Positive social change can result from the adoption of e-commerce platforms by SME leaders. SME are the backbone of the manufacturing sector in India and in developed countries (Mathur et al., 2012; Suresh & Mohideen, 2012). The success of SME is important to the social structure of the country. A higher failure rate among SME than that of larger e-commerce or brick-and-mortar shops can have an undesired impact on the retail industry and the entire nation.

Having stated that grim warning, higher revenues and increased profit margins among SME can lead to a stronger national economy, higher standard of living, greater

employment opportunities, and larger community goodwill. The outcomes of this study may promote further collaboration among government officials, leaders of the trade group, and SME leaders to find ways to promote e-commerce adoption. Strategies highlighted in this study may help SME leaders learn more about potential challenges associated with adopting e-commerce solutions into their businesses and find effective ways to overcome these challenges.

Another social change is the increased consumer awareness while conducting online financial transactions, which is a direct result of increased e-commerce penetration in India. Increased use of e-commerce and online shopping is changing consumers' perceptions about security issues involved in online transactions (K. Yang et al., 2015). Consumers feel that hackers or e-tailers may steal or misuse their personal information (Thakur & Srivastava, 2015). People are becoming more educated about risks associated with online transactions and, therefore, insist on using secure websites (https), one-time passwords (OTP), and card verification value (CVV) numbers (Deloitte & ASSOCHAM, 2015).

Increased e-commerce adoption can help consumers live better quality lives. Shoppers can use e-commerce sites to compare prices of items among multiple e-tailers without visiting the actual stores (Bansal, 2013). Customers can also select an option to purchase a subscription of an item and have it shipped automatically at specific intervals to a specific location (Bansal, 2013). These time-saving features can allow people to spend more time with their friends and family, reduce stress, and improve the quality of

their lives. On the other side, increased use of e-commerce has resulted in a higher ratio of credit card frauds and identity thefts (Deloitte & ASSOCHAM, 2015).

Widespread adoption of the Internet and e-commerce has a direct impact on persons with disabilities. The operators of many leading e-commerce websites implemented features that allow text-to-speech conversion, different font sizes, and different color contrast ratios to allow disabled individuals to participate in e-commerce activities. Using their computers with Internet connection, headphones, and other accessories, disabled individuals can learn about the products, read product reviews, evaluate shipping options, and complete the purchase of a product.

Recommendations for Action

SME leaders should understand that e-commerce is another channel for selling their products. This relatively new sales mechanism has the potential to overtake traditional sales channels. Business leaders around the world are adopting e-commerce platforms to sell their products and services. Indian SME leaders can mimic what other e-commerce-enabled business leaders have done to establish an online presence, educate themselves on technological trends that have an impact on business, perform analyses of knowledge gaps, and partner with other organizations to cover those gaps.

With the support of chambers of commerce and trade unions, SME leaders might apply pressure on local and state government officials and Internet service providers (ISPs) to improve Internet connectivity. To help promote e-commerce, government officials should collaborate with private organizations to offer rebates and subsidies to SME leaders that establish and maintain an e-commerce presence. To increase the supply

of qualified individuals and to narrow the knowledge gap, I recommend that local universities and educational institutions can be made to offer training and workshops to educate SME leaders on the risks and benefits of conducting e-commerce. Training can address a range of topics, such as (a) preventing computer malware infection, (b) accepting electronic payments, (c) protecting against online fraud, (d) conducting international business, (e) delivering online customer service, (f) engaging in online marketing, and (g) maintaining effective web design.

I also recommend that local schools and universities offer traditional and vendor certification classes, which would allow students to learn more about web design, e-commerce, network security, and other related fields. Obtaining certification in these skills could eventually lead to gainful employment. This multipronged approach may create a sustainable model whereby SME leaders can find local talent to manage their e-commerce infrastructures. This workforce might advance the innovation cycle of other products and services, boosting overall success and productivity of SME leaders.

Recommendations involving local ISPs can include assisting SME leaders by offering discounted and bundled Internet access services for the first year of service contracts. This bundle service could include combining Internet access, traditional telephone, and cellular services into one package. ISPs can design and offer innovative and cost-effective services, ensuring that SME leaders remain cognizant and flexible regarding added or expanded services. Along the same lines, web-hosting providers can also offer similar packages to SME leaders. These packages could include website creation, hosting, e-mail, online storage, and online payment processing.

Financial institutions need to revamp their rules and improve customer service to promote the use of credit cards and online banking. Banking leaders should promote the use of credit cards by educating their customers and providing quick resolution of fraudulent cases for every online purchase. People are more likely to conduct online transactions when they know that they will not be liable for any fraudulent activities (Awiagah et al., 2015).

Finally, I recommend that SME leaders, conducting business online, relax the requirements of their exchange and return policies. One of the reasons potential customers become anxious about making online purchases is the lack of physical contact with the products. Potential customers may not want to pay for products that might not be the desired size or taste. By allowing customers to return products, e-tailers may boost buyers' confidence and generate higher online sales. SME leaders should call their customers who have placed an order to purchase a high-value item to verify the order details before dispatching the order. Taking this extra step before the shipment would likely reduce the possibility of a returned order and increase customer satisfaction.

To assist leaders of SME with their development of e-commerce strategies, the findings of this study should be distributed to SME leaders. The results can be communicated in the form of seminars, training sessions, newsletters, and journal articles. To reach government officials and leaders of large companies, I will use e-mail addresses from the contact submission options available on their websites.

Recommendations for Further Research

While methodological, theoretical, and practical limitations associated with conducting a study involving a small group of participants exist, a few trends have emerged from this study. Recommendations for further studies include interviewing a larger segment from larger geographical areas covering multiple industries. Future studies may include using a questionnaire survey instrument to collect data anonymously and to conduct statistical analyses.

Other recommendations for future research include conducting similar studies involving medium- and large-sized enterprises (MLE). Comparing the outcomes of studies that involved SME and MLE might reveal common challenges faced by these different populations of businesses that leaders of private organizations and government officials could address more effectively. Finally, I applied a qualitative method to collect and analyze data for this study. Using a quantitative or mixed-methods research methodology might reveal other valuable strategies that could support greater e-commerce adoption in the manufacturing sector in western India.

Reflections

While initiating this study, I anticipated difficulties in terms of finding qualified material for my research. My skepticism was high about finding credible sources of information to include in this study. As the research continued, much more information became available. All of my general perceptions about conducting doctoral-level research in a developing country, such as India, dissipated very quickly. There were no shocking revelations in the findings of my study; however, I was able to validate some of the

known strategies for adopting an e-commerce platform successfully. E-commerce is still a relatively new phenomenon in India. By repeating proven success strategies and avoiding known pitfalls, SME leaders could use e-commerce platforms to conduct business on a global scale.

Summary and Study Conclusions

The purpose of this qualitative case study was to highlight the strategies for e-commerce platform adoption in the manufacturing sector in western India. While e-commerce is the fastest growing segment of the economy (S. Khan et al., 2014), 95% of SME leaders in India do not have websites (FICCI, 2013). The lack of online presence can be detrimental for a business because web-enabled SME leaders generate more revenue, generate higher profits, and have a wider customer base than offline SME leaders (FICCI, 2013). Many SME leaders may not be able to adopt an e-commerce platform due to limited capital, labor, and resources (Mathur, Mittal, & Dangayach, 2012). Many SME leaders face the challenge associated with a lack of consumer trust, higher number of product returns, shortage of qualified employees, lack of well-designed business processes, inadequate supply chains, and poor physical infrastructure (Deloitte & ASSOCHAM, 2015).

State and central government officials need to understand the importance of e-commerce and its overall impact on both the micro and macro levels of the economy. Government officials should empower SME leaders to adopt e-commerce platforms by providing subsidized loans, offering technical assistance, explaining interstate tax implications, and providing education to complete logistics and legal formalities.

Without the widespread adoption of e-commerce, India may have a difficult time improving its economy and competing in the global market. SME leaders should have access to education programs, a technology-savvy local workforce, partnership opportunities with other organizations, mentorship and networking opportunities with other SME and MLE leaders, and subsidized programs to launch e-commerce initiatives.

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Appendix A: Interview Protocol

Strategies for E-commerce Platform Adoption in the Manufacturing Sector in Western India

Understand the strategies to successfully deploy e-commerce offerings used by SME business leaders from manufacturing segment in western India.

Interviewee: _____ Location: _____

Date: _____ Time: _____

Notes:

1. Greet interviewee and introduce yourself.
2. Provide overview of the study and indicate the usefulness of the outcome.
3. Obtain signed consent form. Offer to answer any questions that interviewee may have.
4. Remind interviewee about their volunteer efforts to participate in the study.
5. Remind interviewee about recording the interview and start the recording.
6. Start the interview by recording interviewee's pre-assigned coded name, date, time and location.
7. Start asking interview questions. Allow enough time to answer those questions.
8. Listen carefully to interviewee. Ask probing and follow-up questions, if needed.
9. At the end of the interview, thank interviewee for their participation and time.
10. Provide participant your contact information if they have any questions.

Interview Questions

1. What made you adopt an e-commerce platform in your organization?
2. What experience did you have before launching your e-commerce platform?
3. What is the extent to which you adopted the use of an e-commerce platform in your business?
4. How did you support your staff when deploying the e-commerce platform?
5. How would you describe the challenges you experienced during the initial adoption of an e-commerce platform?
6. What deployment strategies did you use to successfully adopt an e-commerce platform?
7. What advice would you offer to other SME business leaders who may be in the midst of adopting e-commerce platforms?
8. What issues, if any, are stopping you today from adopting a higher level of e-commerce platform?
9. What strategic considerations did you use before adopting e-commerce platforms as part of your business?
10. How did you determine the requirements for adopting an e-commerce platform in your organization?
11. What changes did you make in your everyday business processes to adopt an e-commerce platform?
12. What impact did external parameters (i.e., end-user awareness, government intervention) have on e-commerce platform adoption?

Appendix B: Informed Consent Form

Consent Form for Participation in a Study

Strategies for E-Commerce Platform Adoption in the Manufacturing Sector in Western India

You are invited to take part in a research study about understanding the level of e-commerce platform adoption among small-medium-enterprises (SME) from manufacturing segments in western India. The researcher is inviting SME business leaders in the manufacturing sector with successful experience in the adoption and the integration of e-commerce into their businesses to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Neeraj Parikh, who is a doctoral student at Walden University.

Background Information:

The purpose of this study is to explore SME business leaders’ efforts and strategies for successfully adopting an e-commerce platform in their businesses.

Procedures:

If you agree to be in this study, you will be asked to:

- Spend approximately 60 minutes in a face-to-face interview with the researcher.
- Participate in the interview one time, where your conversation will be recorded for accuracy and authentication.
- Engage in a series of questions and answer session with the researcher, Neeraj Parikh.
- Decide the time and place of your choosing for the interview.
- You may choose not to answer certain interview questions.

Here are some sample questions:

1. What were some of the key drivers behind the decision to adopt and an e-commerce platform in your organization?
2. What experience have you had with using e-commerce platforms as part of your business?
3. To what degree have you adopted the use of an e-commerce platform in your business today?
4. How did your support staff deploy the e-commerce platform?
5. How would you describe the possible challenges of initial adoption of an e-commerce platform in the day-to-day operational support in your organization?

Voluntary Nature of the Study:

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as personal use of time and feeling hesitant about sharing your experience. Being in this study would not pose any risk to your safety or wellbeing.

Your participation in this survey will provide greater insights to other SME business leaders on how to adopt an e-commerce platform for their businesses. Large-scale e-commerce deployment has documented positive impacts on businesses, employees, communities, governments, and economies in general.

Payment:

You will not receive any direct or in-direct compensation for participating in this study.

Privacy:

Any information you provide will be kept anonymous. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. However, if research reveals any criminal activity or child/elder abuse that necessitate reporting, the local law enforcement agencies will be contacted. Data will be kept secure inside a password-protected computer at researcher's home. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher by calling 8980474475 or via e-mail at neeraj.parikh@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 001-612-312-1210. Walden University's approval number for this study is 03-04-16-0450850 and it expires on March 3, 2017.

- The researcher will give you a copy of this form to keep.
- Please keep this consent form for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant _____

Date of consent _____

Participant's Signature _____

Researcher's Signature _____

Appendix C: Invitation to Participate in a Study

Strategies for E-Commerce Platform Adoption in the Manufacturing Sector in Western India

Dear Mr. or MS. XXX,

My name is Neeraj Parikh. I am pursuing a doctoral degree from the Walden University based in the United States. My doctoral thesis is about understanding the strategies and framework for successfully adopting e-commerce platforms among SME in western India. Your background is well suited for this study.

The interview will take place in-person. The interview will be very informal and should last around 60 minutes. While there is no compensation for you to participate in this research, your involvement in this study can immensely help enrich the lives of many SME leaders, their employees, and our community. If you are willing to participate in this study, please refer to the attached 'informed consent' form. This consent form contains additional information about the study, expectations, and privacy.

If you agree to take part in this study, please call or e-mail me with the date and time of your choosing for our interview. I will do my best to accommodate your schedule. Walden University's approval for this study is 03-04-16-0450850 and it expires on March 3, 2017. Feel free to contact me if you have any questions. I sincerely thank you for your time.

Regards,

Neeraj Parikh
E-mail: neeraj.parikh@waldenu.edu
Phone: 8980474475