Adoption of e-Commerce in micro tourism firms located in Umeå

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Abstract

A new and an effective Internet business model such as electronic commerce (e-Commerce) has obtained great importance in the tourism industry (Li & Suomi, 2008). e-Commerce has great importance also for small firms. Despite this, the majority of literature concerning tourism and e-Commerce does not tend to discuss the adoption of e-Commerce within small and medium sized firms (SMEs), whereas most studies have focused on the information that can be found on broader aspects of the Internet and ICT (Abou-Shouk, Lim & Megicks, 2013). The same is applicable for the smallest type of SMEs namely micro firms. In general, as Sandberg & Håkansson (2014) noted little research has been done concerning e-Commerce adoption in micro firms and they are mainly using quantitative research methods. Besides, in the tourism industry the study of e-Commerce adoption by small businesses are considered as an emergent area where limited research has been conducted yet (Thomas, Shaw, & Page, 2011). Similarly, very little research has been done regarding geographical aspects of e-Commerce. Usually, e-Commerce and its impact on firms and people have been investigated by disciplines outside of geography (Boschma & Weltevreden, 2005). Thus, from a scientific perspective e-Commerce adoption (including spatial aspects) in micro tourism firms remains under-researched. It is unclear to what extent micro tourism firms adopt e-Commerce and what is spatial impact of e-Commerce adoption and if there are any barriers that inhibit that adoption.

The aim of this study is to investigate adoption of e-Commerce in micro tourism firms located in Umeå, Sweden, especially, to describe levels of e-Commerce adoption in micro tourism firms and to analyze the barriers that inhibit e-Commerce adoption within them. The choice of the place can be justified by the fact that Sweden is ranked relatively high in firms’ ICT usage, thus, it is interesting to investigate e-Commerce adoption in micro firms. Moreover, there are many micro firms in Umeå which can become relevant subjects for this study. In order to find out the level of e-Commerce adoption it was applied one of the widely used e-Commerce adoption stage models. In terms of barriers of e-Commerce adoption after discussion of the main literature in relation to barriers, the emphasis was on the literature discussing barriers in Swedish SMEs. The study was qualitative research and was conducted using semi-structured interview approach to conduct interviews in 10 micro tourism firms specializing in accommodation provision. All participating firms in this study were somehow e-Commerce adopters. The data was analyzed using thematic analysis.

The conclusion of this study is that most of the micro tourism firms in Umeå are still developing e-Commerce and are at the lower level of e-Commerce adoption, except from two firms which are at the advanced levels of adoption. All participating firms use e-Commerce to lesser extent to penetrate to distant, international market. Instead, the micro tourism firms in this study use e-Commerce mostly for serving local, Swedish market. The main barriers that inhibit e-Commerce adoption within these micro tourism firms that are identified in this study are a firm small size, a lack of pressure from customers, a lack of “local” support, a lack of managers/owners’ own e-Commerce experience, a lack of knowledge and concerns in relation to the difficulties to meet growing customers' demand.

Key words: e-Commerce, micro tourism firms, SMEs, tourism.
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Abbreviations

ICT-Information and communication technologies
IT-Information technologies
IS-Information systems
e-Commerce- Electronic commerce
e-Business- Electronic business
B2B-Business to business electronic commerce
B2C-Business to customer electronic commerce
SMEs-Small and medium enterprises
1 Introduction

1.1 Background

In recent years, the increased use of the Internet as a medium for implementing business activities and transactions is considered one of the most important development trends. Similar growth of the Internet usage is conditioned by its possible advantages to businesses like access to new customers, suppliers and business partners, cost reduction, selling of existing product by new ways, increasing of productivity and competitive advantages (Ahmad et al., 2015). Almost every business line has used the Internet as a commercial medium to conduct a business in new ways. The tourism industry is not an exception. A new and an effective Internet business model such as electronic commerce (e-Commerce) have obtained great importance in the tourism industry (Li & Suomi, 2008). The main reason for this is a nature of the tourism industry and its products namely intangibility and information based character makes tourism industry perfectly suitable for e-Commerce uses (Kim, Chung, & Lee, 2011). Particularly, given intangible character of tourism products, these products cannot be examined before purchase. Therefore, as customers cannot inspect the products prior to buying, consequently, appropriate information is vital for them to purchase the products (Farkhondehzadeh et al., 2013). e-Commerce itself is a broad concept and it does not simply refer to buying and selling products and services via Internet, but also comprises pre- and post- sales activities (Chaffey, 2011). Moreover, the tourism industry is information based industry it is readily bound to e-Commerce (Peng & Lai, 2014).

e-Commerce has great importance also for small firms. For them all types of information and communication technologies (ICT) including e-Commerce create both opportunities and threats. Using ICT, small firms have created opportunities to be more competitive in international markets. Meanwhile, there is also a concern related to small firms’ inability to use opportunities offered by ICT and as a result, they lose competitiveness in the market (Mazzarol, 2015). However, adoption of e-Commerce by small, especially, micro firms is still relatively small and low. In Sweden, according to Statistics Sweden (2015a) micro firms (with 1-9 employees) take the lowest ranking in the statistics as regards to use of technology and ICT. On the contrary firms with more than 250 employees hold the highest position. The same picture is in case of received orders via a website. The most orders through websites received by firms with 250 and more employees, while small firms (with 10-49 employees) received the fewest website orders (Statistics Sweden, 2015b).

The majority of the literature concerning tourism and e-Commerce does not tend to discuss the adoption of e-Commerce within small and medium sized firms (SMEs), whereas most studies have focused on the information that can be found on broader aspects of the Internet and ICT (Abou-Shouk, Lim, & Megicks, 2013a). The same is applicable for the smallest type of SMEs namely micro firms. In general, as Sandberg & Håkansson (2014) noted that little research has been done concerning e-Commerce adoption in micro firms and they are mainly used quantitative research methods. Besides,
in the tourism industry the study of e-Commerce adoption by small businesses are considered as an emergent area where limited research has conducted yet (Thomas, Shaw, & Page, 2011). The similar tendency can be also traced in the geography. e-Commerce and its impact on firms and people has been investigated by disciplines outside of geography. Usually, spatiality is not discussed in studies concerning the Internet and e-Commerce (Tranos & Nijkamp, 2013). And only recently the spatial consequences of this new form of commerce have been attracted attention of the geographers (Boschma & Weltevreden, 2005).

1.2 Research problem

Based on above mentioned description, it can be stated the research problem. From the scientific perspective e-Commerce adoption, including also spatial aspects, in micro tourism firms remains under-researched. It is unclear to what extent micro tourism firms adopt e-Commerce and what is spatial impact of e-Commerce adoption and if there are any barriers that inhibit that adoption. As a result, the focus of empirical research is to find out e-Commerce adoption level within micro tourism firms and to find out which barriers (if any) limit e-Commerce adoption.

1.3 Aim and research questions

Thus, the aim of this thesis is to investigate adoption of e-Commerce in micro tourism firms located in Umeå, Sweden. This thesis intends to answer the following research questions:

*RQ1: How can the level of e-Commerce adoption in micro tourism firms in Umeå be described?*

*RQ2: Which are the main barriers inhibiting e-Commerce adoption in micro tourism firms?*

1.4 Justification of the research

The micro tourism firm is a broad concept and might include various firms with different specializations; however, this study will focus on micro firms that specialized in provision of accommodation, more concretely on small hotels and bed and breakfast (B&B) providers. In order to achieve the aim of the thesis in-depth interviews were conducted with owners and managers of micro firms.

The researcher is interested in e-Commerce adoption within micro tourism firms, because the formers as the one of type of SMEs are considered as important engine for economic development (Shaharudin et al., 2012). In case of e-Commerce and ICT usage, then Sweden is ranked relatively high in firms’ ICT usage, thus, it is interesting to investigate e-Commerce adoption in micro firms. The study will be conducted based on micro tourism firms located in Umeå- a town located in the northern part of Sweden. The choice of the place can be justified by the fact that there are many micro firms which can become relevant subjects for this study. Thus, with taking into account above mentioned arguments micro tourism firms in Umeå are relevant for this study. Regarding focus on accommodation sector, thus, this choice is conditioned to the fact that customers or tourists in order to use services and
products of this sector most of the cases need to plan it ahead (Millman, 2011). Thus, this sector is naturally suitable for e-Commerce adoption.

The study contributes to the existing body of knowledge by understanding adoption of e-Commerce by micro tourism firms in Sweden. Also, the findings of the study will help tourism firms to have a better understanding e-Commerce adoption processes and challenges and how they could manage their priorities in order to adopt e-Commerce effectively. Although this project is focusing on micro tourism firms in Umeå, Sweden; many problems, challenges, will presumably be relevant to the other small tourism firms located in Northern Sweden, but also to other places around the world.

1.5 Structure of the thesis

In order to develop theoretical framework which will be correspond to the research context the following chapter of the thesis will be dedicated to the analysis of appropriate literature. The literature review part will start with brief representation of e-Commerce relation to tourism, geography and SMEs. Afterwards, the part of the literature review will introduce the main theoretical models which will help to describe e-Commerce adoption levels within micro tourism firms. The literature review part will end up with a discussion about barriers which inhibit micro firms to adopt e-Commerce. Further, the relevant research method will be chosen based on the theoretical framework. This part of the thesis will also demonstrate how necessary data for answering the aim of the thesis will intend to be collected and analyzed. Following findings part will describe e-Commerce adoption in micro tourism firms. Here the findings obtained from the interviews with firms’ owners/managers will be presented. Afterwards, the discussion part will create links between represented theoretical framework and obtained results. The thesis will end up with a conclusion part which will sum up the research acquisitions, will suggest recommendation for practitioners and direction for future research.
2 Literature Review

This chapter provides theoretical background that will help answer to the research questions. The chapter will begin with introduction which briefly represents e-Commerce relation to tourism, geography and SMEs. It will follow with definition of e-Commerce. Then it will discuss directly previous studies about e-Commerce adoption stage models and other alternative perspectives, which will help to answer to the first research question. Further, the chapter will be focus on barriers of e-Commerce adoption by SMEs, and will give specific attention to barriers typical for Swedish SMEs, which will respectively help to answer to the second research question.

2.1 Introduction: e-Commerce relation to tourism, geography and SMEs

In recent years, the internet has become an important instrument having a huge impact on all life aspects. It was not only changed the way people live, work and interact, but due to the possibility to make online transactions, without necessity to leave the house, have turned the way businesses are conducted and perceived. e-Commerce, a term that used to be unknown, has become an important component for different kind of businesses (Diacon & Donici, 2011; Dutta, Geiger, & Lanvin, 2015). In the literature electronic commerce or e-Commerce entered to broad usage in 1990s, when the Internet began to be used commercially (Hashim, 2009). In early years of e-Commerce emergence and establishment some researchers predicted the “death of distance”, meaning that Internet based economic exchange would be less spatially differentiated and release both customers and firms from difficulties created by geography (Clarke, Thompson & Birkin, 2015). Despite these approaches were not based on empirical findings and did not accompanied with hard evidence, however, they were very deterministic and proclaiming the development of borderless world, the death of the cities and in general the end of geography (Tranos & Nijkamp, 2013). Similar perspectives that e-Commerce could work independently from physical geography triggered the rapid development of “online” so called “dot.com” firms and existing firms started to develop their online present which was more focused to distance markets than local one. In more recent studies these perspectives have been revised and taken with caution, though, there is still very little research has been done and there is not sufficient empirical knowledge about the relation between e-Commerce and physical distance, or about declining meaning of geography. One fact is very clear e-Commerce transform geography, simply because e-Commerce does not dependant from physical location of buyers and sellers (Steinfield, 2004).

Schneider (2011) states that since 2000s electronic commerce has become significant part in global economy. Firms’ interest in e-Commerce is related to its ability to increase profit; moreover, they can find new suppliers and business partners. Additionally, e-Commerce enables firms make available their products and services even in remote areas. With the help of e-Commerce firms enhance speed and accuracy of exchanged information, which decreases transactions cost. In other words, “electronic commerce can increase sales and decrease costs” (Schneider, 2011, 17 p.).
Despite of e-Commerce being beneficial to many sectors of the economy, it is worth to mention that some types of businesses such as selling of perishable and/or expensive and exclusive products might never find necessity to use e-Commerce, because these items are impossible to check appropriately from a distance before purchasing (Schneider, 2011).

Different from those businesses, the nature of the tourism industry and its products such as intangibility character of its products, inseparability of production and consumption processes, makes it suitable for e-Commerce uses (Kim et al., 2011). Generally, selection and purchase of tourism products is performed from a distance, before tourists visit a chosen destination and “consume” tourism products. It is noticeable that intangible character of the tourism product makes it impossible to inspect before purchase, thus, it is largely depended on given information, which help customers to perform purchase (Farkhondehzadeh et al., 2013). In this context, Braun (2006) claims, the tourism industry is heavily reliant on e-Commerce. He explains that firstly it helps tourism suppliers to connect with consumers and vice versa and secondly, it provides tourism industry with “speed” which is necessary for providing an instant confirmation to various inquires such as availability of hotel rooms or flights.

e-Commerce is not less important for small and medium size enterprises (SMEs). They are considered to be driving force of modern economies, because they create job opportunities, generate income, and trigger innovation development and increase population welfare (Akbaba, 2012). There is variety of ways how to define SMEs in the literature. According to the European Commission (2015) SMEs are divided into three categories: micro firms with fewer than 10 employees and less than 2 million euro annual turnover; small firms that have between 10 and 49 employees, and annual turnover less than 10 million euros; and medium size firms have between 50 and 249 employees and theirs annual turnover less than 50 million euros. Similar to EC definition in the literature definitions are often based either on a financial turnover or on a number of employed. The definitions based on a number of employed is considered to be less confidential and more objective, thus, used mostly by researchers and policymakers (Hashim, 2009). In this study the micro firms' definition based on a number of employees (less than 10 employees) was used. The advantages of e-Commerce to SMEs are well recognized and involve productivity improvement, more possibilities to reach new customers and suppliers, increase their competitively, delivering better customer support, develop organizational and managerial support and ease strategic decision making (Abou-Shouk, Megicks, & Lim, 2013b). As this study relates to e-Commerce which is a broad concept, it is necessary before scrutinizing the main literature related directly to research questions to discuss definition of e-Commerce.

2.2 Definition of e-Commerce

The literature review reveals several definition of electronic commerce (e-Commerce). Turban (2008) defines e-Commerce as “a process of the buying, selling, and exchanging of products, services, and information via computer networks, primarily the Internet” (p. 275). According to the Organization
for Economic Cooperation and Development (OECD) definition (2011, ¶ 6) “An e-Commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders.” This definition also emphasizes that although goods or services are ordered by those methods, but it is not necessary that the payment and ultimate delivery of goods or services have to be conducted online. E-Commerce transactions can be conducted between individuals, enterprises, households, governments and other public and private organizations.

In the same way, according to Chaffey (2011) non-financial transactions such as customer requests for further information would also be considered as a part of e-Commerce. The same author claims that e-Commerce is much more than electronically conducted financial transactions between customers and organizations. Thus, Chaffey (2011) defines e-Commerce “as all electronically mediated transactions between an organization and any third party it deals with” (p.10).

The important categories of e-Commerce are: 1. Business-to-consumer (B2C) is when businesses sell finished products and services to consumers; 2. Business-to-business (B2B) happens when businesses sell unfinished products and services to other businesses; 3. Consumer-to-consumer (C2C) is process when individuals buy and sell product among themselves; 4. Business-to-government (B2G) comprises business transactions with government agencies; 5. Government-to-government (G2G) includes transactions between governments (Sameni, Jouzbarkand & Khodadadi, 2011).

The term e-Commerce is often replaced by e-Business (electronic business) (Turban, 2008). To some extent the term commerce itself is considered by many people as an exchange performed between business partners. Therefore, the term electronic commerce is considered as a quite narrow term, so instead of e-Commerce many prefer the term e-Business. The latter is considered as a more broad definition of e-Commerce that comprises not only buying, selling and exchanging, but also which is more important an interacting with business partners and electronic transition conducting (Turban,2008).

In this work, the preference is given to the term e-Commerce with its broad meaning, which is equivalent to e-Business and based on the literature the following definition of e-Commerce will be used: E-Commerce is a process of all type of transactions including buying, selling, and exchanging of products, services, and information via computer networks between organization and any third party (Adapted from Chaffey, 2011; OECD, 2009; Turban, 2008). Regarding type of e-Commerce focus will be on business to consumer (B2C) (Sameni et al., 2011) when sellers are organizations and buyers are individuals (Turban, 2008).

2.3 e-Commerce adoption levels in SMEs

Past studies reveal several theoretical models, which have described the level of e-Commerce adoption within SMEs. The most commonly used models are various stage models and “adoption ladder”. The
literature review discover several models developed by Daniel, Wilson & Myers (2002), Levy & Powell (2005), Rao, Metts & Monge (2003), Al-Qirim (2007), Abou-Shouk & Lim (2010), Choochinprkarn (2015). Beside from stage models it is also widely used ICT “adoption ladder” proposed by the UK the Department of Trade and Industry (DTI) (Gray, 2012). All these models are very similar to each other and share one common characteristic namely they are divided into stages or levels, where each stage/level is more advanced than the previous one. This study reviews a few prominent models and especially, pays extra attention to those models that are relevant for studying e-Commerce adoption within small tourism firms.

According to Rao et al. (2003) a stage model for e-Commerce development can serve as a useful guideline for advancement of firms. The stage model for e-Commerce development is explained by Rao et al. (2003) as the rational progression of e-Commerce which comprises distinctive stages of development, where each of these stages is better than the previous stage.

The stage model proposed by Rao et al. (2003) involves four different stages: 1. presence; 2. portals; 3. transaction integration, 4. enterprises integration. At stage 1 “Presence”, the firm made its first steps in e-Commerce by demonstrating brochures and other information materials on a Web page. At this stage the Web page provides only one-way communication to potential users. In this stage even though Web page provides all relevant information about firm’s products and services, contact information or other information, however all this happens in static manner. Thus, in this stage a webpage is used mainly to attract new customers. At stage 2 “Portals”, the firm introducing a two-way communication, customers and suppliers order placing. Actions, which are available in presence stage, can be added with facilities for ordering and product feedback. The former actions allow the firms not only attract new customers, but also retain visitors. Although, this stage is sophisticated in comparison to presence, however, financial transactions are still not available.

At stage 3 “Transactions integration”, the firm performs financial transactions with partners. Thus, at this stage the firm will require more advanced technical capabilities. This stage also is characterized with participation in virtual communities (where participant share information about common interest), electronic auctions and third party e-marketplace. At stage 4 “Enterprise integration”, the firm completes integration of business processes. This stage includes high levels of collaboration between customers and suppliers. Also, enterprise integration stage comprises full integration of B2B and B2C businesses.

With each stage cost, technological demands and complexity is growing, which is especially obvious in the later stages. The authors stress that although according to the stage model e-Commerce adoption is consecutive process, however, it is not compulsory that a firm starts with the earliest stage and successively go through all stages. Being rather flexible, the model is enabled firms to enter at any stage. As a firm's technology and e-Commerce knowledge expand, accordingly the probability that it will omit early stages and will pass to more advanced stages also expands.
Based on Rao et al. (2003) stage model Abou-Shouk & Lim (2010) proposed a four-stage model of e-Commerce adoption in SMEs. The developed model the authors used for examining small and medium sized travel agencies. As in Rao et al. (2003) model, this model also consists of four stages, however different from Rao model it is divided into two levels: low level and advanced level of e-Commerce practices. The former involves static web presence and interactive online presence phases and the later includes electronic transactions and electronic integration phases.

The firm at Phase 1 “Static web presence” starts to use internet to search customers and suppliers. Particularly, the firm uses e-mail to communicate with customers, suppliers and business partners. Also, at this phase the firm starts use homepage for dissemination purposes. In the next Phase 2 “Interactive online presence” the firm introduces two-way interactions through the company portal, starts to use e-mail to receive customers’ orders. Additionally, the firm itself places and manages orders with suppliers and begins digital transfer of documents within the company. Following Phase 3 called “Electronic transactions” is more sophisticated than two others. At this phase the firm performs order receiving and processing. This phase also includes online booking and online payment and digital services delivery. The last “Electronic integration” Phase 4 is characterized with high level of collaboration with business partners. The firm starts providing after sales services, full internal and external use of e-mail; intranet; extranet for inter-organizational interaction with business partners.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>company information : company description; financial facts; photos library; and virtual tours;</td>
</tr>
<tr>
<td>static Web presence</td>
<td>- services/product information : packages info; prices; promotions; future packages;</td>
</tr>
<tr>
<td>Phase 2</td>
<td>- interactive database search facility</td>
</tr>
<tr>
<td>interactive online presence</td>
<td>- virtual brochures; online reservation request form; FAQ; surveys; feedback forms; chat/forum/e-cards sending;</td>
</tr>
<tr>
<td>Phase 3</td>
<td>- online booking</td>
</tr>
<tr>
<td>electronic transactions</td>
<td>- online payment receiving; cards accepted; online accounts for buyers; order tracking; digital delivery of travel documents;</td>
</tr>
<tr>
<td>Phase 4</td>
<td>- after sales procedures</td>
</tr>
<tr>
<td>electronic integration</td>
<td>- collaboration/alliance member; intranet-private network accessible only to an organization’s staff; world pay integration;</td>
</tr>
</tbody>
</table>

Source: Adapted from Abou-Shouk & Lim, 2010
Similar to the stage models “the adoption ladder” depicts ICT adoption in SMEs as a successive process and consists of levels. As demonstrated on Figure 1 e-Commerce demonstrates as one of the level of adoption ladder. According to Gray (2012) in the literature the adoption ladder created by Cisco for the UK government’s information age partnership study is the one of the most often applied and discussed “technology-push” models. As in stage models “the adoption ladder” also assumes that firms start to explore and to adopt new communication technologies with the simply use of an email, which serve for communication purposes within and beyond the firm. Gradually developing, the firms adopt a webpage for promoting their products and services online, which is followed by e-Commerce level. Here, the firm receives and process online orders and payments. The purpose of the latest stages is to adapt majority of internal business activities to the use of ICT (Martin & Matlay, 2001).

However, Gray (2012) criticizes the adoption ladder. The main criticism is related to an inability of showing how ICT change what SMEs can do and there is no sign of a dynamic process that leads from one stage to a next stage, as the author noted “it is too linear to describe the process that are often non-linear and very complex” (Gray, 2012, p.5). As it mentioned above stage models and adoption ladders got much attention from academics and not less criticism. Particularly, about criticism of stage models will be the next section.

![Figure 1: e-adoption model. Source: Martin & Matlay, 2001.](image)
2.3.1 Criticism of stage models

Although stage models have been widely used for defining firms e-Commerce adoption level in SMEs, in the literature there is lots of criticism towards stage models. Particularly, Martin & Matlay (2001) argue that stage models oversimplify and try to generalize complex processes. The authors propose that stage models fail to recognize individual factors like a firm size, owner/managers characteristics, and a geographical location and so on. The study by Taylor & Murphy (2004) also criticized models of e-Commerce adoption and considered these models too technological. Similar to Martin & Matlay (2001) these authors suggested to pay attention on human capital in a process of ICT acquisition in SMEs. In addition, Fillis, Johansson, & Wagner (2004) observe e-Commerce adoption as a nonlinear process. Microenterprises are seen as the common type of smaller firm, where owner/managers play central role for e-Commerce development. According to Levy & Powell (2003) successful outcome of stage models assume integration of business systems and changing business processes within the firm, by moving from one stage to another. However, many SMEs do not even reach to more advanced stages, than develop webpages and adopt email account. As noted Alonso Mendo & Fitzgerald (2005) stage models are also criticized because of being too general and not taking account different type of firms.

The more recent study by Sandberg, Wahlberg, & Håkanson (2011) investigates disadvantages of stage models and points out that more advanced stages of the model do not necessarily include lower stages. The study demonstrates that stage models adoption of ICT has limited capabilities to describe small firms ICT acquisition, and considered that stage models should be revised and should take into account human capital as a critical factor for ICT adoption within small firms.

A number of researchers try to create alternative models as a replacement stage model. Particularly, in their study Depaoli & Za (2013) attempt to overcome stage models linear and too technological character and propose nonlinear stage model based on level of interaction. This model “sees” technology as a mean for interaction, in other words, interactions performed via technology use more important than technology itself. Besides, the model implies different level of interaction among different kind of actors. Stages, in this model instead of focusing on technologies (e.g. email, webpage) are concentrating on number of actors involved in interaction. The more sophisticated stage the more actors (e.g. employees, customers, suppliers) interact.

Despite, being widely criticized in the literature, as mentioned Alonso Mendo & Fitzgerald (2005) stage models continues to be used by researchers and practitioners, mainly because linear model is seem to be simple way to describe SMEs ICT and e-Commerce adoption. The fact that SMEs e-Commerce adoption can be described with various levels indicates that SMEs might face barriers when adopting e-Commerce.
2.4 Barriers for e-Commerce adoption among SMEs

Previous studies demonstrate that there are numerous approaches to identify barriers, which have prevented e-Commerce adoption in SMEs (MacGregor & Vrazalic, 2007; Ardent, 2008; Abu Abid, A., Rahim, & Scheepers, 2011; Zaied, 2012; Chang & Dasgupta, 2015). Although, academic literature contains a lot of studies about barriers of e-Commerce adoption in SMEs, however, little research has been conducted concerning barriers that inhibit e-Commerce adoption specifically in small tourism firms (Heung, 2003; Abou-Shouk & Eraqi 2015; Shemi & Procter, 2013). Besides of the fact that these approaches differ from each other on how they classified barriers, these barriers can be also classified according to their geographical focus, namely barriers for e-Commerce adoption in developing and developed countries. As shown in Table 2 in developed countries such as Australia, UK, Sweden, Spain and Portugal the main barriers are lack of external support, technological sophistication, lack of qualified staff (Arendt, 2008; Abu Abid et al., 2011; MacGregor & Vrazalic, 2007). On the contrary, in developing countries like Egypt, Nigeria, Botswana a lack of Internet security, a limited use of Internet banking, risk factors, a lack of trust and a lack of resources, a poor developed telecommunication infrastructure, legal and regulatory barriers are the main obstacles for e-Commerce adoption (Zaied, 2012; Afolayan et al., 2014; Shemi & Procter, 2013). As this study focuses on micro tourism firms located in Umeå, Sweden, which is a developed country, consequently, studies from developed countries are more appropriate for this thesis. It is appropriate also because the literature review did not reveal studies which cover e-Commerce barriers in tourism SMEs located in developed countries. The revealed studies by Heung (2003); Abou-Shouk & Eraqi (2015); Shemi & Procter (2013) with tourism focus concentrated on SMEs located in developing countries. Therefore, below it will be presented studies about barriers of e-Commerce adoption in developed countries.

Particularly, in the more recent study conducted by Chang & Dasgupta (2015) in the UK, the finding reveals several obstacles that prevent e-Commerce development such as non-applicability to their markets, the lack of e-Commerce knowledge and the lack of appropriate standards and regulations. Interestingly, more obvious barriers like a small size of the firms or a lack of human and IT resources do not considered as the barriers for SMEs. However, the lack of external support, particularly the lack of support from the government, mentioned as a crucial factor. On the contrary in the study performed by Ifinedo (2011) based on Canadian SMEs, governmental support has been considered as insignificant inhibitor for e-Commerce adoption.

The findings from the study Abu Abid et al. (2011) on a base of Australian SMEs are signify two barriers out of fifteen represented barriers such as of lack of compatibility between their technical infrastructure and e-Commerce technologies and absence of sufficient planning and strategy for e-Commerce. The authors mentioned also that although SMEs participating in the study are well aware of e-Commerce benefits and ready enough for e-Commerce adoption, however, they fail to estimate financial costs which are necessary for e-Commerce adoption.
### Table 2. E-Commerce adoption barriers among SMEs. Source: Author’s own compilation.

<table>
<thead>
<tr>
<th>Author</th>
<th>Barriers</th>
<th>Method</th>
<th>Study area</th>
<th>Studied industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arendt (2008)</td>
<td>• lack of knowledge and education&lt;br&gt;• lack of skilled owners and managers, employees</td>
<td>face-to-face interviews with SMEs’ owner–managers and employees</td>
<td>Spain, Portugal, Poland</td>
<td>Service, Manufacturing, Trade</td>
</tr>
<tr>
<td>MacGregor &amp; Vrazalic (2007)</td>
<td>• too difficult&lt;br&gt;• unsuitability for businesses</td>
<td>interviews and questionnaire with Likert scale of importance</td>
<td>Sweden, Australia</td>
<td>Industrial, Service Retail, Finance</td>
</tr>
<tr>
<td>Abu Abid, Rahim, &amp; Scheepers (2011)</td>
<td>• technological sophistication&lt;br&gt;• lack of financial commitment</td>
<td>online survey</td>
<td>Australia</td>
<td>professional businesses hairdressers and Restaurants</td>
</tr>
<tr>
<td>Chang &amp; Dasgupta (2015)</td>
<td>• external support&lt;br&gt;• business partners’ knowledge</td>
<td>Interviews</td>
<td>UK</td>
<td>IT and IT-related industries</td>
</tr>
<tr>
<td>Zaied (2012)</td>
<td>• technical barriers&lt;br&gt;• legal and regulatory barriers&lt;br&gt;• lack of Internet security&lt;br&gt;• limited use of Internet banking and web portals</td>
<td>Survey</td>
<td>Egypt</td>
<td>Manufacturing, Engineering, Service</td>
</tr>
<tr>
<td>Oh, Anderson &amp; Cruickshank (2012)</td>
<td>• risk&lt;br&gt;• business risk</td>
<td>Survey</td>
<td>Korea</td>
<td>Trade, Manufacturing</td>
</tr>
<tr>
<td>Afolayan et al. (2015)</td>
<td>• lack of security&lt;br&gt;• lack of trust&lt;br&gt;• lack of capital&lt;br&gt;• poor infrastructure&lt;br&gt;• lack of trained staff</td>
<td>Survey</td>
<td>Nigeria</td>
<td>Manufacturing, Mining, Service, Educational, Agro-aided, Transport, Construction, Trade</td>
</tr>
<tr>
<td>Heung (2003)</td>
<td>• management support&lt;br&gt;• partners participation</td>
<td>Survey</td>
<td>Hong Kong</td>
<td>Travel and tourism</td>
</tr>
<tr>
<td>Abou-Shouk &amp; Iraqi (2015)</td>
<td>• technological attributes&lt;br&gt;• resource limitations</td>
<td>Survey</td>
<td>Egypt</td>
<td>Travel and Tourism</td>
</tr>
<tr>
<td>Shemi &amp; Procter (2013)</td>
<td>• managerial, technological, environmental</td>
<td>unstructured and semi-structured interviews, web-site analysis</td>
<td>Botswana</td>
<td>ICT Tourism</td>
</tr>
</tbody>
</table>
2.4.1 Barriers of e-Commerce adoption within SMEs in Sweden

Various sources of the literature suggest that in general e-Commerce adoption in all firms in Sweden is at a high level. Despite that, Swedish small firms are not free from challenges in regards to e-Commerce adoption. Swedish small firms are facing many barriers when adopting e-Commerce. Some of these barriers are similar to those barriers which previous studies identified. However, some of the authors reveal new barriers that have been not identified in the literature before. The review of literature regarding barriers inhibiting e-Commerce adoption characterizing Swedish small firms are identified several models, which will be discussed below.

Earlier studies regarding e-Commerce adoption barriers within Swedish small firms by Vrazalic, et al. (2003) and MacGregor & Vrazalic (2005) suggested a basic model, which classified barriers of e-Commerce adoption in two groups based on two factors: *difficulty* and *unsuitability*. The group based on “Too Difficult” factor, as it called by the authors, includes barriers, which existence make e-Commerce too difficult to implement. This group involves barriers related to the difficulty of e-Commerce usage techniques, the complexity in choosing from a the range of available e-Commerce option appropriate one, the difficulty of finding necessary financial means to implement e-Commerce, the lack of relevant technical knowledge and the lack of time to adopt e-Commerce. Another group of barriers named “Unsuitable” comprises barriers such as the unsuitability of products/services offered by SMEs for e-Commerce uses, the unsuitability in the way both SMEs and their customers doing business. This group involves also the barrier associated with the absence of understanding of the benefits that can bring e-Commerce adoption. It is distinguished also barriers of security issues, which are related to both of above mentioned factors. According to the authors based on these two groups of barriers small firms can be differentiated as non-adopters and potential adopters.

In the more recent study Sultana, Lopez, & Rusu (2011) propose a model, which categorizes possible barriers faced by Swedish small firms in deploying e-Commerce. This model signifies barriers in the pre-adoption phase and in the post adoption phase (during implementation of e-Commerce). Their study demonstrates that the main barriers faced by small firms in Sweden in the post-adoption phase are problems related to payment and delivery, fear of being unable to fulfill customer's orders and the ability to keep prices in a low level. The latter is considered as a significant barrier in a way of e-Commerce successful implementation. Particularly, as the authors mention “the price battle” among firms doing business online might become an obstacle for buying and selling products online. For firms which customers can easily compare prices online prior purchasing, keeping price compatible is necessity. As the main pre-adoption barriers the authors distinguish a lack of IT knowledge and cognitive factors. It is worth mentioning that their results are based on four firms: two adopters and two non-adopters. The study demonstrates that owners of non-adopters have not IT knowledge, different from the owners of the adopters who have. It is remarkable that according to the authors most of the barriers represented in the research literature are not relevant for Swedish small firms, as many
of these barriers such as a lack of cost effective infrastructure for e-Commerce development, were overcome.

Figure 2. A model of e-Commerce implementation barriers in small enterprises in Sweden

Source: Sultana et al., 2011

The similar way of division e-Commerce adoption barriers of into pre- and post-adoption phases as in Sultana et al. (2011) model is noticed in the study conducted by Hultman & Eriksson (2008). In their work based on qualitative research on 20 Swedish SMEs, the authors investigated and identified post-adoption decision dilemmas faced by SMEs managers. Their study suggested three main post-adoption decision dilemmas such as finding e-Commerce competence within firms, trying to balance on- and offline communication, in a process of e-Commerce development in SMEs, making decision rely on internal or market driven development.

Sandberg & Håkansson (2014) in their qualitative study of e-Commerce barriers by 12 rural microenterprises in Sweden, show that microenterprises have most of the barriers inhibiting e-Commerce adoption as previous studies mentioned, but additionally discover new barriers such as supplier agreement, communication and customer strategy that constrains the adoption of e-Commerce. In some cases of some microenterprises communication with customers through e-Commerce means is too complex and might prevent personal contact with customers, which are not desirable for the owners. On the other hand if the firm has few customers it might be a barriers for e-Commerce adoption. Similar to Sultana et al. (2014) study, the author of this study state that in developed countries like Sweden infrastructure are not seen as a barrier for e-Commerce and ICT adoption. In general, the results of study demonstrate that researched microenterprises think positively about ICT and e-Commerce, meanwhile most of them adopt the typical e-Commerce technologies such as email and webpage instead of e-Commerce platform for conducting online transactions.
Based on above mentioned models explaining e-Commerce barriers typical for Swedish SMEs it can be concluded that most of the barriers typical for majority of the firms in another parts of the world like lack of infrastructure or the lack of time to implement e-Commerce are overcome in Sweden, however there are identified some barriers which are typical for Swedish SMEs. It is notable the division of the barriers specific for pre-and post-adoption period.

2.5 Gap in the literature

Despite the existence of several studies about e-Commerce adoption and barriers which inhibit it implementation within SMEs, however, there is little research on these issues in tourism SMEs. There is also shortage of studies on e-Commerce implementation within micro firms. It is unclear whether e-Commerce adoption and development in tourism SMEs have the same patterns as in SMEs in general. Overall, it was identified several theoretical frameworks addressing on a broad issues of e-Commerce acceptance in SMEs, there is little amount of frameworks which tried to explain e-Commerce adoption within micro tourism firms.

2.6 Summary

This chapter started with a brief representation why e-Commerce correspond to tourism industry and beneficial for SMEs. In this context, it was addressed on e-Commerce definition and indicated the definition which was preferred in this study. Whereupon, it was immediate transition to most profound theoretical models which explained e-Commerce adoption in SMEs. It was represented also critical perspectives of these models. Later the chapter, addressed to the literature on the issues related to the barriers that constrains e-Commerce adoption in SMEs. This section began with discussion various studies on barriers and briefly summarized studies with focus on both developing and developed countries and concentrated on barriers typical for developed countries that were relevant for this study. Later this section continued to discuss the studies with focus on barriers characterizing Swedish SMEs.
3 Method and Data

This section will discuss the research methodology that was used in this study. It will give detailed explanation about following topics: research approach and design, sample selection, data collection and analysis, ethical consideration and limitations.

3.1 Research philosophy, approach and design

Saunders, Lewis, & Thornhill (2009) explain the research philosophy as combination of beliefs and assumptions about development of knowledge. The adopted research philosophy describes the way the researcher see the world and predetermines the research strategy and the methods. For this study, interpretivism research philosophy was used. The researcher who uses interpretivism sees the world from point of view of his/her research participants (Veal, 2011) and focuses on what is important for the research participants (Saunders et al., 2009).

Concerning to the research approaches, then Saunders et al. (2009) distinguish two types of research approaches namely deductive and inductive. Based on existing theory, deductive approach involves development hypothesis and/or hypotheses which become a subject to a detailed test. In other words, with deductive approach a researcher begins with exploring existed theory and then check whether it is valid or not. Whereas inductive approach involves first collection of data and further building a theory based on collected data. The choice of correspond research approach depends on the nature of research topic. When a research topic allows studying prior literature and creating theoretical framework, consequently, a deductive approach is suitable for research. Conversely, when prior literature is limited and a research topic is new, inductive approach is more appropriate.

However, combination of these two approaches is also possible and application one of approaches is not exclude the use of the other (Saunders et al., 2009). In the literature this kind of combining approach is known as abductive approach. This approach enables a researcher to study existed phenomenon from a new angle and obtain new knowledge about it (Kovács & Spens, 2005). Abductive approach is applicable when there is a wealthy amount literature about studied topic in one context, however, little information is available in the context in which particularly is interested the researcher (Saunders et al., 2009). As demonstrated in the literature chapter, there is available rich information in form of various theoretical models and concepts about e-Commerce adoption within SMEs. As mentioned earlier studies concerning e-Commerce adoption within micro firms are limited and they are mainly based on quantitative methods (Sandberg & Håkansson, 2014). Thus, in this study, based on previous knowledge about e-Commerce adoption in SMEs and with use of qualitative method instead of quantitative one, the micro tourism firms was studied.
Besides from research approach, it is important to clarify research design. The former is plan, demonstrating how a researcher is going to answer research questions (Saunders et al., 2009). The research design chosen for this study was qualitative in nature. The reason for this choice was related to the purpose of this study that is to understand the e-Commerce adoption levels within micro touristic firms and discover whether exists inhibitors that constrain this process. As qualitative research is engaged in understanding how people interpret their experiences, and give meaning to them (Merriam, 2009), the qualitative approach will help to understand experiences that encounter micro tourism firms in a way of e-Commerce adoption and make possible to collect a relatively large amount of data about uses of e-Commerce in micro tourism firms.

3.2 Sample selection

As the designed methodology for this paper was qualitative in nature, the sample selection used for interviewing respondents was based on non-probability purposive sampling strategy. This strategy is also known as non-random sampling offers to a researcher select samples based on her/his subjective judgment (Saunders et al., 2009). In other words, non-probability sampling based on a specific reason, allow some people in the population to have a higher likelihood of being selected than others (Brewerton & Millward, 2001). Regarding selected sampling techniques as it mentioned above it was chosen purposive technique. The reason for this choice is related to the fact that this technique enables to select cases that are particularly informative (Saunders et al., 2009). Brotherton (2008) mentioned that necessary information in general required by researcher might possess a few persons, so called key informants and more specialized information even few ones. Considering that this study related to firms and it is assumed that only several persons, namely managers’ and owners’ of firms might be as a key informant.

This study was focused on micro tourism firms specializing in accommodation provision. This line of business includes several subsectors like B&B (bed and breakfast), self-catering (holiday rentals), hotels, camping, caravanning, holiday parks and hostels (Millman, 2011). The main focus of this study was small hotels and B&B. The latter are generally owner-occupied private homes and they are used more as a residential place than getting paid by guests. Usually, B&B are previously single-family dwellings and usually have between four and eleven rooms, on average they have six rooms (Jones & Guan, 2011). The potential respondents were firstly identified via Internet, by use of information of various touristic webpages (www.visitUmeå.com, www.booking.com and www.hotels.com). It is worth to note that as the respondents was selected through the Internet based sources, the selected firms have somehow already engagement in e-Commerce (e.g. have email account and own webpage) and thus it can be concluded that these firms are already e-Commerce adopters.

As the aim of the study focuses on micro tourism firms, the main criteria for selecting respondents were being corresponded to micro characteristics. Therefore, a respondent should be an owner or a manager of hotel and/or B&B located in Umeå with less than 10 employees. In order to check whether a firm corresponded to micro firm criteria, a number of employees of each particular firm was checked on www.allabolag.se and www.eniro.se webpages. During the sample selection process it was
identified a few small hotels that although corresponded to the criteria: had less than 10 employees and located in Umeå, however, they were excluded from the sample selection list, because they were branches of the larger firms. The former meant that their resources and e-Commerce adoption processes directed from larger counterparts, thus, this made them inappropriate for this study. As a result of final selection process, it was identified 14 firms in total, which corresponded to above mentioned criteria.

3.3 Data collection

First contact with identified firms started with an email, which was informed them about the thesis objectives and asked them to participate in an interview (see Appendix 1). After few days the selected firms was contacted by a telephone to arrange a concrete meeting date and time. A few of contacted potential respondents during the telephone conversation claimed that they did not have time to give an interview, because of their busy schedule. Brotherton (2008) noted that similar situations are unavoidable in some instances, because of managers'/owners' working activities and busy schedule, they might have other priorities. In order to avoid making pressure on these managers/owners and taking into account ethical considerations the attention was given to the rest of the firms. The firms located in the central parts of Umeå was visited directly and asked to set up a meeting. In some cases respondents agreed to conduct an interview directly during a visit. This approach made participation rate higher.

In this research, it was used primary data gotten from the firms, through semi-structured interview with open-ended questions as data collection methods. The reason for this choice is that by interviewing owners/managers necessary information can be obtained about e-Commerce adoption levels and perceived barriers of e-Commerce adoption in those firms. One of the merits of using semi-structured interview method is that it allows researcher to encourage respondents to talk, to ask additional questions and to ask respondents to explain their answers (Veal, 2011). Besides, in semi-structured interviews researcher has a possibility to omit some questions in particular interviews and adapt questions to a specific organizational context (Saunders et al., 2009). The interview guide containing the general open-ended questions supplemented with follow-up questions were grouped into themes (see Appendix 2), which allowed easily guide the conversation. Factual, socio demographic-type of questions about respondents were asked at the beginning of the interview (Merriam, 2009), which further replaced by more detailed questions concerning directly to e-Commerce adoption.

Ultimately, 10 persons were interviewed among them were both managers and owners of the firms. Table 3 below demonstrates how participant firms were assigned in the thesis and which position held the respondents.
### Table 3. Type of micro tourism firms and their assigned pseudonyms

<table>
<thead>
<tr>
<th>Assignment of firms</th>
<th>Type of micro tourism firm</th>
<th>Type of respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm 1</td>
<td>small hotel</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 2</td>
<td>small hotel</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 3</td>
<td>small hotel</td>
<td>Manager</td>
</tr>
<tr>
<td>Firm 4</td>
<td>B&amp;B</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 5</td>
<td>B&amp;B</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 6</td>
<td>small hotel</td>
<td>Manager</td>
</tr>
<tr>
<td>Firm 7</td>
<td>small hotel</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 8</td>
<td>small hotel</td>
<td>Manager</td>
</tr>
<tr>
<td>Firm 9</td>
<td>B&amp;B</td>
<td>Owner</td>
</tr>
<tr>
<td>Firm 10</td>
<td>small hotel</td>
<td>Owner</td>
</tr>
</tbody>
</table>

All interviews were conducted face-to-face and lasted between 30-40 minutes. In order to get prepared for planned meeting, before each interview, the webpage of each firm was examined. The interviews started with introduction of the researcher, short explanation of the nature of the study and the purpose of the interview as well as type of question that will be asked. During the interviews used language was English. The interviews were also audio-recorded with the informed consent of the interviewees, verbatim transcribed and further stored. Only in case of one interview audio recording did not performed in order to avoid pressure to the participant; however notes were taken during the interview as suggested by Veal (2011) and immediately transcribed afterwards. Note taking were conducted during all interviews and after interviews also received expressions and feelings during the interviews were written down. In the end of the interviews the respondents were thanked for their contribution and time and were suggested to receive the final version of the thesis.

### 3.4 Data analysis: strategy and process

In order to analyze the collected data from interviews it was used a thematic analysis method, which is a method for finding, analyzing and recording themes (patterns) within data (Braun & Clarke, 2006). The preference was given to thematic analysis for its flexibility. Braun & Clarke (2006) describe thematic analysis as a method that independent from theory and can be used across a range of theoretical approaches. Due to this thematic analysis can be useful and flexible research tool for the researcher who are beginner in qualitative analysis and have little or no experience of qualitative research. As I am doing for the first time qualitative analysis at this scale I think that the thematic analysis is more appropriate for analysis of the data. It is distinguished inductive and theoretical thematic analysis. The former means that identified themes are emerging from the data itself, in other words, the themes are data-driven. As a result a coding process of the data is conducted without previous determination and matching to any existed theories. Different from inductive analysis, theoretical type of thematic analysis is highly dependent from theories, consequently, necessary
themes and codes for the research are determined based on theories (Braun & Clarke, 2006). In this study both types of thematic analysis was used. As demonstrated in the literature chapter, in the literature exists necessary studies dedicated to SMEs e-Commerce adoption, which can be applicable for some extent micro firms' context, meanwhile to add existed gap related to micro and tourism firms issue helped inductive thematic analysis. There are two levels for identifying themes, namely semantic and latent. The former in a process of identifying themes relies on surface meaning of the data. A researcher does not aim to find out more than a participant said or wrote, instead, the researcher demonstrates the significant of themes. On the contrary, thematic analysis in latent level focuses on underlying ideas and meaning of the participant answer (Braun & Clarke, 2006). Regarding the level of analysis, it was given preference to semantic analysis rather than latent analysis, because the research concentrate only what the respondent said and do not aim to go beyond that.

The process of data analysis was conducted based on principals explained by Braun & Clarke (2006). The actual process of analyzing data started with transcription all audio-recorded material into text. Following this was familiarization with all collected data from the interviews. I started to read all the interviews to grasp a general picture of collected data then went back to each of interview and read them thoroughly. As I used combination of both inductive and theoretical thematic analysis, in the process of code generating I was directed by codes both based on theories and emerged after interviewing the participants. First it was conducted initial coding, later codes with similar meaning was organized into larger codes. The generation of codes with relevant data to them was followed by search for themes. The last was conducted by gathering codes and all appropriate data into potential themes. After that all determined themes was reviewed in order to improve them. As a result, for the selected themes were generated definitions and were a given name to each of theme. Later, final determined themes were grouped into focus areas, which were correspond to the research questions. The final part of data analysis involved producing of the report. In this stage identified themes was analyzed in relation to research questions and literature. This part of the data analysis will represent in the following chapters.

3.5 Ethical considerations

Ethical concerns can emerge during the whole process of the research when researcher plan the research, seek access to organization and to individuals, as well as when the researcher collects, analysis and represents the research (Saunders et al., 2009). Merriam (2009) claimed that although availability of various guidelines, polices and codes of ethics developed by institutions, professional associations and governmental organizations each researcher, based on his/her own values and ethics, decides individually actual ethical practices. Although, in actual study, researcher make decision with taking into account characteristics of particular study, however there are important aspects that should be considered a head of a research and during the whole process during each research project, such as informed consent, the protection of subjects from harm and the protection of their identity and issue of deception (Iphofen, 2009; Merriam, 2009).
The participants of the study were asked about consent to participate in an interview and to be audio-recoded during the interview. They have been informed about purpose of the study and the way collected information was intended to be used prior the meeting. Additionally, the purpose of the study has been represented during personal meeting as well. Besides, the participants ensured that information obtained from them during the interviews would remain confidential. Regarding anonymity issues as warned Veal (2011) in some research the naming of individuals or organizations is inevitable due to small number of the subjects and key attributable figures associated with particular organizations. As this research regards to micro firms located in Umeå, which the participants either own or work for and considering the fact there are few firms corresponding micro criteria in Umeå, thus, even hiding the names of firms and the names of managers/owners, the interviewees can be traced with few attributable information. Under such condition keeping the anonymity of interviewees can be challenged. In order to solve this issue names both managers/owners and firms and any attributable information such as number of the rooms or year of foundation, associated with the firms were hidden in the thesis, meantime in order not to harm the quality of the thesis by skipping this information, this information represented in the thesis in more general manner. To protect their identity all participants in the study were given pseudonyms (e.g. Firm 1, Firm 2).

Both during the data collection process and making the interview guide potentially sensitive issues such might be for instance annual turnover was avoided. As mentioned above English language was used during the interviews, which was foreign language both for me and for the participants. Considering that the usage of a foreign language could be stressful and in order to avoid misunderstanding, difficult structured questions and explanations was avoided and instead the preference was given to the simple composed questions.

3.6 Methodological limitations

Simon (2011) considers limitations as potential weaknesses of a study which are out of a researcher’s control. One of the drawbacks in this study was that all interviewed micro firms are in some degree e-Commerce adopters; thus, this study did not cover “non-adopter” firms. Moreover, the language during the whole process of data collection was English. As mentioned above English is foreign language for me and the participants, thus it caused some difficulties during the interviews. Although, most of the participants had good command of English skills, however, they could reflect on the interview questions more easily in Swedish.

The data used in this study gathered through qualitative interviews. This means that the findings of this study are highly dependent both from a researcher interpretation and an interpretation given by the participants of interviews. Brotherton (2008) argues that in these cases ability to reproduce the findings and their reliability is under the question. In this context, it should be taken into account that the participants worked for or owned the firms they were represented, thus, it is possible that they in some cases could give bias responses and interpretations. Another limitation also worth mentioning is my non-Swedish background. Saunders et al. (2009) warns that cultural differences could be the reason for misinterpretation between the interviewer and the interviewers.
In addition, not being able to conduct interviews with all type of micro tourism firms, the findings could not be representative for the whole micro tourism firms in Umeå. Considering time and economic constrains, the empirical research could examine only a few micro tourism firms located in Umeå. However, it will be interesting to examine other micro firms located in other parts of Sweden. Moreover, as this study focused on e-Commerce adoption in micro tourism firms specializing in accommodation provision, it could be interesting for future research include other micro tourism firms specializing in other spheres such as activity providing micro firms and compare them with accommodation providers.

4 Findings

This chapter will present the findings from the analysis, which were obtained through the empirical research discussed in the previous, “Method and Data” chapter. In this chapter, the findings will be grouped according to the focus areas in which different themes were identified. In order to give general understanding about the study area and the research subjects, the chapter will start with a brief representation of the study area, then it will give background information about the firms. Later it will concentrate on the focus areas which are related directly to the research questions. Further the information presented in this chapter will be used in a separate one in order to discuss the findings in connection with the theories brought forward in the literature review chapter.

4.1 The study area- a brief description from the touristic perspective

This study was performed in Umeå, which is located in northern part of Sweden (see Figure 3) and it is Sweden’s largest city in the north. Umeå is also one of the fastest growing city in Sweden and hosts more than 30 000 university students each year. It is located in the province of Västerbotten and is the county seat of Västerbotten. Umeå University and Umeå Hospital are considered two of the most important institutions in the city. From a touristic perspective, business and nature-based tourism are well represented in Umeå. Business tourism got its development mainly because of universities establishment. Especially, leisure tourism (for instance shopping, visit to opera or theatre, restaurant etc.) is getting special importance for tourism development in Umeå (Umeå Kommun, 2016). Referring to preferable accommodation for overnight stays, 27% of tourists in 2013 prefer to stay in hotels, hostels, camping and other types of paid accommodation. The tourism market mostly consists of Swedes. Norwegian, Finnish and German visitors represent the international touristic market. (A. Wikholm, personal communication, May 9, 2016).
Figure 3: Study area. *Source:* Google Maps.
4.2 Background

This section will be based on the description of characteristics of the micro tourism firms that the respondents represented.

All of the micro tourism firms participating in the research are located in various parts of the town Umeå, Sweden. Three of participating firms in the research are B&B and the rest of them small type of the hotels. Two of these B&B are owner-occupied private homes, which means that these accommodations have used both as lodging and home. The owners have lived at the home with their families, where parts of the room rent out to the guests (Firm 4, Firm 9). Another B&B is the vacation house of the owner, where the owner spends most of the time, became B&B after renovation. Regarding ownership type all three B&B run by a single owner. In case of small hotels, than majority of them are family-run, more precise four out of seven small hotels are family-run and the rest of three have single ownership. It is noteworthy that all participant firms are not the only occupation/business for the owners of these firms. All of them have additional business or job which they run or do simultaneously with running B&B or small hotel. The one of the respondents describe that like this “[...] you need something additional, you cannot rely only on this business, I work in another place and come here in evening” (Firm 5). In connection to offered service and products by the firms, then, they offer accommodation for staying and breakfast. In case of small hotels the range of offered services/products a little bit more broad, as they additionally have opportunity to host small scale conferences, have sauna and in some cases adjacent working small bar and restaurant.

Regarding the size of these firms in terms of the room capacity, it ranges from four to six rooms in case of B&B and twelve to thirty in case of the small hotels. In terms of the number of employees than there is clear distinction between B&B and small hotels. The former firms have only one employee, the owners him/herself, “I do anything in this company” (Firm 9), “employees create only problems... at least in my experience” (Firm 4), “Right now I manage alone, may be in the future I will need some help” (Firm 5). Different from B&B , the number of the employees in the small hotels varies between two to nine. In case of necessity they hire additional employees. “We have 5 employees in total, but we always have to take extra workers when we are fully booked, like now” (Firm 6). None of the participant firms have special employee who are responsible for IT. The issues related to IT they solve relying on a help from family members or friends and in some cases they hire someone from the outside. As one of respondent said: “My husband help me with all related to the webpage and Internet [...] he helps me if I need to change something in the webpage and so on, and the friend of our family help us to develop the webpage itself ” (Firm 2). In some cases the firms rely on the owner own knowledge in IT scope.

Regarding customers of these firms, all participants mentioned that have different types of customers, but the business travelers consists majority of customers of the small hotels. It can be differentiated
two types of business travelers: high profile business travelers and workers engaged in different types of constructions. The purpose for the former to visit Umeå connected with universities and hospital and other business organizations located in the town. One of the respondent explained purpose of the customers like this: “I think people come for business reason or to work at the university. I do not have so much visitors for recreational purposes” (Firm 1). Another respondent noted that besides customers related to university or hospital, there are large group of workers staying at the hotel: “I have a pretty good variety of customers, there are university and hospital people here, and it may be related to current construction situation in Umeå, there are lot of construction workers and electricians” (Firm 3). Customers, who are coming for recreational purposes, are very few. They are mainly families, couples and they usually come on weekends and in the summers. The picture is different in the case of B&B customers. Their customers are very different including students, low paid workers and travelers with small groups. The majority of the customers of the all firms are swedes. “[The guests] are mix all over Sweden, but we have from other countries as well, but mostly they are Swedes” (Firm 3). Some of the respondents express an idea whether their customers come from Sweden or abroad depend on what website they promote their firms: “Before, when the hotel was registered in booking.com database the hotel have guests from abroad. Now with hotels.com Swedes are dominant” (Firm 2). In case of the small hotels their customers stay 2-3 days, customers of B&B prefer to stay longer up to one week.

Summarizing the background information concerning micro tourism firms which participated in this study it can be said that two type of firms namely B&B and small hotels have some similarities such as the owners’ additional business/ occupation and the customers dominantly from Sweden. Regarding the differences of these firms, the most vivid one are purpose of stay of their customers, the number of the employees and offered services.
4.3 Research analysis model

In this short section, the findings of the data analysis are demonstrated in a visual form. Figure 3 below summarizes and illustrates the main focus areas and themes within them that will be discussed further in this chapter. Based on the research questions of the thesis the model includes two main focus areas: levels of e-Commerce adoption and barriers of e-Commerce adoption. As a result of the data analysis determined themes gathered in accordance to each focus area. Further, each of themes will be represented in depth.

![Research analysis model](image)

Figure 4. The research analysis model. Source: Created by the author.
4.4 Levels of e-Commerce adoption

This section will present four themes within the first focus area: (1) communication, (2) convenience, (3) preferences, and (4) perceived need. These themes describe different aspects of the firms' e-Commerce adoption. The first two themes describe the firms' online interactions with customers and business partners. The following two themes reflect how customers order accommodation and make payments.

Communication: All participant firms have and use emails and webpages to attract and to communicate with their customers. Additionally, they emphasize the role of various online booking webpages helping customers to find their firms. It is interesting that the respondents from B&B mention local coordinating webpage visitUmeå.com, established and run by Umeå Tourist Office, as the main online mean for disseminating information about their firms (Firm 4, Firm 9). According to the respondents this webpage visitUmeå.com is the webpage that provides information about local for Umeå accommodation, activities, events, etc. One of them remarks that help from Umeå Tourist Office and more importantly its webpage is very effective: “Tourist office came and offered their help couple years ago, since then [the guests] found me on visitUmeå.com. This is mainly in that way and also the sign outside of the house, also by telling each other […] I do not use booking.com or other sites” (Firm 4). Regarding online communication of the firms with business partners and employers, the respondents from the small hotels mentioned that they had online interactions with them, different from B&B, which have no employees and limited business partners to interact at all.

Convenience: Concerning online interaction with business partners the respondents from small firms explains that although their business partners have webpages or emails, however, it is more convenient to call them “I think with business partners if they have webpage and you can place the order on their website, but I work with small little companies as well, than I use a phone, they are so small. They have webpage, but usually you call, because there is something you want to ask and you want to get the answer directly” (Firm 1). Interaction with employees is mainly by telephone (call and text messaging), but more and more they communicate by email. The some of the respondents from small hotels notes that it depends with whom they interact “it depends with whom I am going to communicate. “The employee that I have on breakfast, usually it is email, just sms. But the employees who are responsible for cleaning they just learning Swedish, they don't really know that much Swedish yet, so I try to communicate face to face, when they are here, so I know that they understood everything that I want to say” (Firm 3). Some of firms where the number of employees reaches up to nine and which have separate employees responsible for different function employees have individual emails and interact through them (Firm 1, Firm 8).

Preferences: The participant firms emphasize that their customers prefer place orders mostly by telephone and by email. The respondents from B&B note that although telephone is still important source for getting orders, but more and more customers prefer to place orders by email. The
respondents from small hotels mentioned that majority of their received orders are from booking websites: “95% of all orders come from the Internet, I mean from booking.com and hotels.com” (Firm 1). Another respondent from small hotel also validate that customers prefer to place orders through email or with the usage of one of the booking systems. However the same respondent pointed out that there are still people who prefer to call:” In a month we get a pretty big proportion, nearly 60% through booking.com and the other 40% people either emailing or calling. But I think it is quite a lot of people still prefer calls, I think I more use to communicate through an email, but there are lots of people, who actually calls for bookings and questioning lot of things (Firm 3). Regarding online reservation form on their webpage the respondents mention that although all of firms have it, but a very few customers use this form to place an order. Only Firm 3 and Firm 1 developed after sales services such as order tracking option for the customers.

**Perceived need:** With regards to online payment only three firms integrate and use online payment as the one of option of their payment services (Firm 1, Firm 3 & Firm 8). All three are small hotels. The respondents explain their decision for implementing online payment option is related directly to their customers. As one of the respondents says: “I think it relates that we have customers who wanted that kind of service, usually if there are companies or these kinds of things, may be the people who are coming are not the people who are paying, when the online payment are perfect for them” (Firm 8). This indicates that companies pays online in advance for its workers staying in the hotel and releases them from the payment issues. Another respondent emphasizes the importance of the online payment for the firm “We launched online payment 1,5years ago and it works quite well, I am going to improve it even more” (Firm 1). The last demonstrates that the firms that successfully implement online payment option are planning to improve it in the future.

The rest of respondents both from the small hotels and B&B do not feel necessity to implement online payment or do not see real benefit from it in the current situation. “The guests pay when they arrive, it is a small company” (Firm 9), “I think to develop online payment, may be later I will do it, we will see. The business is too small, if I have you say 15 rooms or 20 rooms, I will probably use that kind of system. But know it works well this way. I don't see I will have any benefit for having this system, it is not easy for me and that has to do with a size of the business” (Firm 4). One of the statement of the respondent from small hotel demonstrates that online payment system development directly depends from customers demand “Probably in the future I should think about developing [online payment]. For example, when I bought this hotel, the former owner didn’t have even device for credit card payment. Today, the hotel has it, because it is necessary, otherwise no one wants to stay at your hotel. You have to follow the stream” (Firm 7). This indicates that changes concerning e-Commerce and related services conditions by needs of their customers. Depending of their customers the firms demonstrate willingness to changes with understanding that otherwise the firm can stay out of the competition.

Table 4 below illustrates levels of e-Commerce adoption in micro tourism firms in Umeå based on the theoretical model presented by Abou-Shouk & Lim (2010). The majority of the firms are on Phase 2, which is characterized with two-way interactions among firms and customers, receiving online orders.
from the customers; they do not develop online financial transactions on the webpages. All the firms communicate online with customers, however, online communications with business partners are limited in Phase 2 are both the small hotels and B&B. With regards to Phase 4, then Firm 1 and Firm 3 reach to this phase, besides from feathers characterized in previous Phases, the firms in Phase 4 provide after sales services, develop intranet- private networks available for inner usage, online order tracking option., Firm 8 are in Phase 3, which means they have developed those services that is characterized with receiving online bookings and payments from the customers.

Table 4. Levels of e-Commerce adoption in micro tourism firms in Umeå

<table>
<thead>
<tr>
<th>Phase</th>
<th>Brief Description</th>
<th>Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 4</td>
<td>- after sales services</td>
<td>Firm 1, Firm 3,</td>
</tr>
<tr>
<td></td>
<td>- intranet</td>
<td></td>
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<tr>
<td></td>
<td>- full external and internal usage of e-mail</td>
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<tr>
<td>Phase 3</td>
<td>- online booking</td>
<td>Firm 8</td>
</tr>
<tr>
<td></td>
<td>- online payment</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td>- two way communication</td>
<td>Firm 2, Firm 4, Firm 5, Firm 6, Firm 7, Firm 9, Firm 10</td>
</tr>
<tr>
<td></td>
<td>- using e-mail to receive customers’ orders</td>
<td></td>
</tr>
<tr>
<td>Phase 1</td>
<td>- using internet to search customers and suppliers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- webpage for information dissemination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- using e-mail to communicate with customers, business partners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- one way communication</td>
<td></td>
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</tbody>
</table>

*Source:* Adapted from Abou-Shouk & Lim, 2010.

4.5 Barriers of e-Commerce adoption

The second focus area combines four themes which describe various barriers that inhibit e-Commerce adoption and development within micro tourism firms. These four main themes are: (1) firm small size, (2) lack, which itself involve four subthemes, (3) price competition, and (4) concerns in relation to the difficulties to meet growing customers' demand.

**Firm small size:** Opinions on small size as an inhibiting factor for e-Commerce adoption are divided. The one respondent points out that firm size is not an issue for him to consider e-Commerce adoption. “It does not matter how many employees do you have or how many rooms do you have, as long as you want the guests stay in your hotel and satisfy their need you should adopt what they need” (Firm 1).
This firm has approximately 8-9 employees and more than 20 rooms available in the hotel. This kind of opinion concerning a firm size and e-Commerce adoption is conditioned by the fact that this firm possesses resources both in terms of employees and the rooms. Consequently, having from its point of view enough resources (e.g. rooms, employees) the firm did not see size of the firm as a barrier constraining its e-Commerce. On the other hand some of the respondents have a contrast opinion that small size is an obstacle for e-Commerce adoption and development. First, because of small firm size in terms of number of employees some of the firms found it hard to spend their time and energy to implement e-Commerce. The respondent of Firm 2 comments “May be, if I will sit here every day and every hour, or have extra worker, who will care about everything, it is possible to do something about e-Commerce, but now, I am here mainly at night for doing check-in” (Firm 2). This indicates that because of a firm size, when the firms have not employees except from the owner and taking to the account that the owner has additional occupation, the owner have limited time resource to invest in e-Commerce adoption. Second, the small firm size is comprehended by the respondent based on the number of rooms: “When you have e-Commerce and it works quite good, the small size could be a problem, I mean at a moment we fully booked, and people are calling and calling and we are hoping that we have a room available, so we are joking that may be if we have 20 more rooms it will be better” (Firm 4). It can be said that the small size is not an issue for e-Commerce adoption or development for the firms which have well developed resources both in terms of work force and the number of rooms. However, for those firms that have few employees and in some cases only one employee like in case of B&B where the owner is only employee and limited capacity in terms of the rooms, firm small size is still seen as a barrier for further e-Commerce adoption.

Lack

Lack of external support: External support includes both available support from the government and industry organization (Chang & Dasgupta, 2015). In general, it can be noticed that the participants do not seen lack of external support in form of financial and informational or any other forms as an inhibiting factor for their e-Commerce development. Regarding particularly to the governmental support the respondents expressed identical opinions that they do not feel necessity of support from them. The participants emphasize that their firms are their own businesses and do not even expect that some organizations even governmental one should help them to develop e-Commerce. Regarding particularly to the governmental support the respondents expressed identical opinions that they do not feel necessity of support from them. The participants emphasize that their firms are their own businesses and do not even expect that some organizations even governmental one should help them to develop e-Commerce. Regardless the total agreement about insignificant role of the governmental support in e-Commerce adoption, some of the respondents were demonstrated interest and asked whether support from governmental exist (Firm 1, Firm 3). However, it was interesting that some of the firms highly appraise support from Umeå Tourist Office (local organization helping develop tourism in Umeå and adjacent places). Therefore, it illustrates that support from local organizations are important. The support from them is especially important for B&B as already mentioned above.

Lack of pressure from customers: Customers and their needs in e-Commerce services are mentioned by the respondents as an important factor for adopting and developing e-Commerce. It is expressed an
opinion that if customers need to book and to pay online probably the owner will noticed it. The guests come anyway so the owners do not have to think about e-Commerce development. However, the growing number of the hotels are worried the respondents, and they noticed that previously there were not so many hotels in the town, which meant no or limited competition (Firm 2, Firm 9). The respond of one of the owner illustrates that statement: “Before, when I bought this hotel, there are not so many hotels in Umeå. I did not need to improve e-Commerce, because people come anyway. May be I should get there.” (Firm9). In this context the respondents mentioned customers’ social status and the purpose of the visit. According to the respondents customers whose purpose of visit to Umeå is related to universities or to the hospital tend to book and to pay online (Firm 1, Firm 3) different from customers which purpose is related to construction works (Firm 3, Firm 6). Usually they arrange their stay via telephone and pay when they arrive.

Lack of managers'/owners' own e-Commerce experience: Managers'/owners' own experiences in e-Commerce more precisely lack of their own online purchases are also found as important barrier. Some of the respondents linked their own purchase behavior as a customer to the decision to adopt or to develop e-Commerce in their firms. One of the respondent mentions that during her own travel experience she prefers to pay by cash in arrival. “I don’t know, I have never thought about barriers of e-Commerce, may be if I develop e-Commerce I will start to think about it. As a private person, I pay for a room during the arriving, if I stay at Stockholm. I have always, pay in the reception” (Firm 2). In other words, if he/she as the owner or manager does not book and purchase online their hotel rooms, thus, supposedly they assume that their customers will not do it either. In the same vain, another respondent expresses identical opinion and even did not specify only travel purchases; his opinion is related to electronic purchases in general. “I don't use e-Commerce myself then I need something to buy I go to the shop and just buy it, because you know people are different, I am 57 and when I was young, there was only cash. I feel safer this way” (Firm 4). Despite these opinions when asked about opinion regarding to the importance and the suitability of e-Commerce for their businesses both of respondents demonstrated positive attitude toward e-Commerce and considered to develop it in the future. The rest of the respondents did not link e-Commerce adoption within their firms to their own e-Commerce experience.

Lack of IT knowledge: Lack of IT knowledge is found by some of the respondents as a barrier for e-Commerce adoption. It is interesting that lack of knowledge as a barrier for further e-Commerce development was mentioned by those firms which have well developed e-Commerce (Firm 1, Firm 3). Particularly, these firms give opportunity to their customers to book and to pay online both in their webpages and through external booking systems such as booking.com or hotels.com. Regardless to this, the respondents noticed that the one of the barrier that prevents further development of e-Commerce and what their firms need most are knowledge in IT scope. As a solution for elimination of this barrier the respondent see involvement of relevant IT experts. The owner of the Firm 1 involves students with IT education from the universities to develop his firm webpage: “we are going to have 2 trainees from [Umeå University] in next month who are going to improve the webpage [...]this is my way of filling knowledge gap”. The rest of the respondents did not observe lack of knowledge in
IT sphere as an obstacle and some of them mentioned that never really thought about it. From the author's point of view those firms which are started intensively use e-Commerce in their business operations identify their shortcomings in IT knowledge more easily, than those which usage of e-Commerce are limited.

**Price competition:** As the one of the barrier to a successful adoption of e-Commerce the participant firms mentioned is related to price competition. The price competition among hotels which are doing business online was identified as a possibilities inhibitor for selling hotels products/services online. As long as the firms' products/services are highly visible in online platform, it emerges need to regulate prices in order to be competitive. One of the respondents explained that like this: “We always have to follow the prices, because we do not want to go too high or too low. So I follow the prices at least once a week, depending on how much people I have, on Thursdays often pretty quiet and then I go online and see the other hotels, and whether we are pricy and where I can go” (Firm 3). The price issues are encountered two firms (Firm 1, Firm 3). Another respondents mentioned that their firms in general did not face with these kind of problems and to the question whether they follow other similar firms like their for any reason, the participants mentioned that if they did then only in the beginning when they opened the hotel or B&B.

**Concerns in relation to the difficulties to meet growing customers' demand:** Some of the firms see as a barrier for further adoption of e-Commerce their inability to fulfill growing demand for accommodation. The respondents notice that because of e-Commerce the number of guests in some cases is superseded to the number of accommodation. As they mention it is important to develop e-Commerce according to firms’ resources, otherwise the growing demand can work against the firms. In order to avoid such situation the firms regularly check available accommodation and try to keep the balance between demand and supply. The respondents explained it like this in case of orders through booking websites like bookings.com or hotels.com they automatically manage synchronize demand and supply, but the customers contact them not only through these means. Often the customers contact them through their webpages or simply search them on the Internet. In that case difficulties are emerged with relation to the customers demand and supply. This barrier is encountered both by the small hotels and B&B. The respondent from one of B&B is mentioned that she has to ignore calls from the potential customers until the rooms are not free again “It is tough sometimes I do not know what to do, I have to ignore their calls when all my rooms are busy, so I cannot rent them out. I know it is not professional but right now I cannot enlarge this house” (Firm 5). The similar opinion is expressed by another respondent: “You have to check all the time to see if you have room available, it is not so pleasant to be fully booked and receive new bookings” (Firm 6). In general, this barrier can be associated with a barrier of the firm size in terms of room capacity.

In the end of this chapter, it can be said that despite different barriers and levels of adoption of e-Commerce the participant firms had positive attitude toward e-Commerce and thought that e-Commerce corresponded to nature of their businesses and suitable to their way of doing business. When the participant asked about the future plans, all of them mentioned that they consider to develop
e-Commerce in the future, however, only few of them noted concrete dates and strategies for realization these plans (Firm 1, Firm 3).

5 Discussion

This chapter will provide a discussion of the research findings presented in the previous chapter. The findings will be discussed in connection with the theories brought forward in the literature review chapter.

The findings suggest that micro tourism firms in Umeå are in the different stages of e-Commerce adoption and most of micro tourism firms are still developing its e-Commerce. Based on e-Commerce stage model purposed by Abou-Shouk & Lim (2010) majority of micro firms investigated in this study can be described as the firms with a lower level of e-Commerce adoption. Particularly, most of the firms are in Phase 2, they are present online, but not use e-Commerce intensively. It means that these firms do not go beyond promotional levels and do not adopt online transactions. However, what it is typical for the tourism industry it is the usage of different online booking websites, which are used by those firms. This means that the firms “compensate” their own lack of online payment option through this way. Interestingly, the different e-Commerce stage models applicable for SMEs did not consider and did not take into account external e-Commerce usage (booking.com, hotels.com, etc.) by SMEs. In other words, the firm itself could be on lower levels of e-Commerce adoption based on what it adopts in terms of e-Commerce, but it does not necessarily demonstrate the reality. The findings also revealed that critique regarding that small firms cannot reach more advanced levels of e-Commerce adoption as it was mentioned by Levy & Powell (2003) are not supported by the micro tourism firms investigated in this study. Particularly, two micro tourism firms reached to advanced levels of e-Commerce adoption, they have adopted not only online transactions, but also have developed intranet, online order tracking options, after sales services. However, it is worth mentioning that these two firms differ from the other firms researched in this study with the number of the employees (approximately 8-9 employees) and with the number of the rooms (more than 15 rooms). It is hard to relate their “success” with the number of the rooms or the number of the employees, as this study did not have purpose to investigate the reasons lagging behind of e-Commerce adoption, but have purpose to describe and reveal levels of e-Commerce adoption within micro tourism firms. The one thing is clear that perhaps based on their resources in terms of room capacity and work force added with other factors not covered in this study they reach advanced levels. It is noteworthy that although the criticism about small firms’ inability to reach advanced levels is not supported in this study, however, it was observed by the author that the participating firms demonstrate limited online cooperation with their business partners. It gives the reason to think that probably if e-Commerce adoption stage model is applied for micro tourism firms it does not necessarily involve online interaction of the firm with its business partners.

Regarding spatial impact of e-Commerce adoption of these firms, then it can be said that the firms use e-Commerce mostly for reaching local, Swedish market, instead of the distant, international market.
This notion was based on the answers that firms’ managers/owners expressed about geography of their customers. The managers/owners stated that their customers are mostly coming from Sweden. In this context Adelaar, Bouwman & Steinfield (2004) noticed that firms often use e-Commerce not only to search new market, but also for enrich communication with existed markets. It is also worth mentioning that the firms with advanced level of e-Commerce despite similar to the rest of the firms tendency, namely, customers mainly from Sweden, highlighted also visitors from other countries as well. This notion gives a base to speculate that firms’ advanced level of e-Commerce can extend geography of firms’ customers and extend spatial impact of firms’ products/services.

The findings suggest also that the barriers inhibiting e-Commerce adoption have “post-adoption” nature, which means that the participated firms are encountered with barriers after e-Commerce adoption. Although among other studies represented in the literature review small size was not viewed as a serious obstacle by the authors (Chang & Dasgupta, 2015), however the findings of this study demonstrate that this statement is not supported in this study except from two firms. Most of the participating firms still see small size of the firm as an important inhibitor preventing e-Commerce adoption. The explanation of this could be focus of the studies. In this study the main subjects of investigation are micro firms that have less than ten employees, while in the previous literature the focus was small and medium size firms with 10 and more employees. This fact could explain why small size is still seen as a barrier for the participant firms of this study. Small size of the firm as a barrier for e-Commerce adoption is especially emphasized by B&B. Their owners are considered and mentioned small size as one of the reason why they are not fully adopt e-Commerce.

In case of external support or more precisely lack of external support from the government and industry associations, then, the findings demonstrate that the participants did not observe absence of support from outside in a form of financial or informational support as an important obstacle. This findings confirm the results of study conducted by Ifinedo (2011), where the participant Canadian SMEs have been considered governmental support as insignificant inhibitor for e-Commerce adoption. However, especially, the respondents from B&B mentioned that most of the customers have known about them through the common online platform created by Umeå Tourist Office(visitUmeå.com). In other words, it can be said that external support is important, but it does not have to be governmental, local support is preferable for the participant firms. Therefore, it can be said that the lack of “local” support could be a barrier for e-Commerce successful implementation.

The findings also demonstrate that lack of IT knowledge also is a barrier for e-Commerce adoption. This findings support by the findings revealed by Sultana et al. (2011). The author considered the barrier related to the lack of knowledge as belonging to pre-adoption phase, thus it is a barrier in the phase when firm has not developed e-Commerce yet. However, this study demonstrates that lack of knowledge could be inhibiting factor even when a firm successfully adopts and uses e-Commerce. It is noteworthy that especially firms that are at the advanced levels of adoption (Firm 1 and Firm 3) mentioned lack of knowledge as a barriers.
The findings also demonstrate that among inhibiting factor was price competition. This was mentioned not as an important barrier, but as accompanied problem after e-Commerce adoption. The respondents noted that because of e-Commerce their firms as well as their competitors and consequently their offered services/products are more visible online, consequently, the competition concerning prices are increased. Thus, they have to regularly check and adjust the prices at least in weekly basis. The last is especially important for those firms, more precisely, for the small hotels which have successfully adopt e-Commerce. This finding corresponds to the finding discovered by the study by Sultana et al. (2011) performed in Sweden.

The findings reveal that the barrier as concerns in relation to the difficulties to meet growing customers’ demand is particularly significant for the participant firms. Growing e-Commerce has its beneficial effect for their businesses, but in a situation of small capacity in terms of the rooms, that could be a problem. Under such conditions, it is logical that the firms should run “mild” e-commerce adoption and development strategy.

The findings did not reveal barriers related to security issues associated with e-Commerce mentioned in the literature (Sultana et al., 2011; Chang & Dasgupta, 2015). Similar barriers did not seen as a problem for the participant firms and were not observed as something that need attention. The firms also did not demonstrate any interest to other similar firms that practice e-Commerce. The interest is limited only in relation to prices. Other aspects in connection to e-Commerce for instance online payment option in the webpage are not observed as interesting by firms. The participants did not mention lack of resources in form of time or financial or any other form as a barrier. It is interesting especially that lack of time was not considered as significant barrier, despite to the fact that majority of firms owners/managers’ have extra occupation/business.

The findings found that e-Commerce is suitable for the participants’ way of doing business and helps to communicate with customers even better by giving more professional and quick services. This differ from study by Sandberg & Håkansson (2014), where some of the participants firms mentioned e-Commerce as too complex and most important hinders personal contact with the customers.

This study has explored new barriers in addition to the previous studies. A new barrier preventing successful e-Commerce adoption and development was identified in this study that was not identified in the previous literature is the lack of pressure from the customers. The changes in e-Commerce that initiated by the firms directly depend on customers and their needs. This high dependency from the customers means that micro firms will willing to develop necessary e-services in case of customers pressure. For the participated firms customers “serve” as indicators for changes. In this context, the findings reveal that even customers socio-demographic characteristics and purpose of visiting/staying to hotels/B&B are also important factor for e-Commerce adoption and in some cases preventing barrier.-The similar opinions are dominant in both in small hotels and B&B. The lack of pressure from the customers corresponds to the barrier such as low use by customers and suppliers identified by Sultana et al (2011).
Another barrier revealed in this study is lack of owners'/managers' own e-Commerce experience. The lack of owners'/managers' own experience in e-Commerce did not identified in previous studies as a barrier constrain e-Commerce adoption, however, it could explain reasons that inhibit firms to adopt and develop e-Commerce. Limited or absence of electronic purchases including purchases of tourism products leads to similar behavior in case of e-Commerce adoption within firms. It is hard to access the importance of this barrier when the owners/managers consider adopt or develop e-Commerce, however the findings demonstrate that the owners emphasize it as argument why they do not develop e-Commerce. This barrier need further investigation to find out is it typical only for some of the participant firms in this study or it is pattern that typical for other firms beyond this study too.

In general, the findings has shown that barriers inhibiting e-Commerce adoption in micro tourism firms did not essentially differ from the barriers characterized for SMEs specializing in other sectors of industry. The study did not reveal barriers for e-Commerce that are typical for tourism firms.

6 Conclusion

This chapter concludes the thesis. It will briefly summarize the thesis and will answer the research questions asked in the thesis. Further, the chapter will give recommendations for practitioners and suggest direction for future research.

Although there is wealthy amount of literature dedicated to e-Commerce and SMEs, there are relatively few studies focus on e-Commerce practices in micro tourism firms, given the importance of the formers both for society and for economy. To address this gap in the literature this study was initiated with an aim to investigate adoption of e-Commerce in micro tourism firms located in Umeå, Sweden, particularly, to identify micro tourism firms e-Commerce adoption level and barriers that inhibit e-Commerce adoption. In order to form theoretical framework for this study it was selected and discussed e-Commerce stage models applicable for SMEs and also barriers that were characterized for SMEs. Based on theoretical framework developed for this study ten micro tourism firms were chosen in Umeå, Sweden to understand their e-Commerce adoption levels and barriers that prevent them to adopt e-Commerce. Semi-structured interviews were conducted with owners/managers of selected firms to discuss and to explore issues outlined in the theoretical framework.

The findings demonstrate overall positive attitude of all respondents toward e-Commerce. The all participating firms were comprehended e-Commerce as important aspect of their business and something that should be developed in the future. The findings help to discover new aspects of e-Commerce adoption that is typical for tourism firms. Despite, the majority of micro tourism firms in Umeå is characterized with lower level of e-Commerce adoption, however, through external booking webpages such as booking.com or hotels.com they compensate their e-Commerce development. Regarding spatial impact of e-Commerce adoption of these micro tourism firms, then, all participating firms use e-Commerce to lesser extent to penetrate to distant, international market. Instead, the micro tourism firms in this study use e-Commerce mostly for serving local, Swedish market. Also, this study
discovers new barriers that did not cover in the literature before. One of the barrier that emerge from this is lack of owners/managers own e-Commerce experience that can be added to the list of the barriers. Another barrier is lack of pressure from the customers, which is important factor for the participant firms e-Commerce adoption. It is worth to mention that despite the study covers set of barriers inhibiting e-Commerce adoption in micro tourism firms in Umeå, however, these barriers are not “tourism” specific.

The empirical research allows answering the research questions asked in the beginning of the thesis: 

RQ1: How can the level of e-Commerce adoption in micro tourism firms in Umeå be described?

Based on the empirical study, it can be said that micro tourism firms in Umeå are still developing e-Commerce and can be described with lower levels of adoption, the exception are few firms which have reached to advanced levels of adoption.

RQ2: Which are the main barriers inhibiting e-Commerce adoption in micro tourism firms?

The empirical study demonstrates that firm size, lack of pressure from customers, lack of “local” support, lack of managers'/owners' own e-Commerce experience, lack of knowledge and concerns in relation to the difficulties to meet growing customers' demand are the main barriers that hinder e-Commerce adoption in micro tourism firms located in Umeå.

The implications of this study could guide owners/managers of micro tourism firms specializing in accommodation provision to consider features required to move firms to the advanced practices in e-Commerce. The thesis can also assist in increasing knowledge that might support public organizations and industry associations with insights with that will help them implement supportive policies in order to improve e-Commerce within small tourism micro firms. Regarding to the future of these firms, by judging from the current situation, they will move to the higher levels of e-Commerce in case of pressure from their customers, as most of them showing willingness to change if customer need it. Those firms that are at the higher level of adoption, those which are at advanced levels in case of tourism development scenario in Umeå, will encounter intensification of difficulties to meet growing customers demand with current number of the rooms. Probably, that will bring changes to these firms in form of increasing capacity of the rooms which will lead to growth of the number of employees; as a result firms will become larger firms.

This study was examined e-Commerce adoption within micro tourism firms in Umeå, however, it will be interesting to examine micro tourism firms located in other parts of Sweden. Moreover, the focus of this study was micro firms specializing in accommodation provision, particularly, the study investigate small hotels and B&B. In the future to focus on the other part of accommodation business, such as self-catering (holiday rentals), camping, caravanning and holiday parks, hostels, etc.

6.1 Recommendations for practitioners

Based on the findings and conclusions, a number of recommendations are made for owners/managers of micro tourism firms, which will be presented below:
• Since the owners of B&B mentioned successful cooperation with local tourism office in terms of e-Commerce development, they should activate more their cooperation with this kind of organizations and suggest their own visions and proposals of cooperation. B&B could also make an attempt to promote their products/services more actively in some booking systems and try to develop relevant payment options.

• Some of the firms demonstrate high dependency on customer needs and readiness to change in case of customers demand. Similar strategy when changes and adoption of e-Commerce within the firm is conditioned only by customers could cost too high for the firm. Consequently, it will better for firms to be more proactive and initiate changes in e-Commerce by themselves.

• According to the empirical research of this study the owners/managers adopt and develop e-Commerce or related services are mostly relying on their own, friends and relatives IT knowledge. This is enough as long as the owner/manager have IT related education or skills, otherwise, it will be better to refer to someone who possess professional skills in this scope.

• Micro tourism firms should more carefully follow what other similar firms do in e-Commerce and make an attempt to apply successful practices in their firms. It will be beneficial time to time to follow similar firms’ webpages. According to the findings of this thesis the other similar firms have become subjects of interest only in regards to prices and mainly in the beginning of the firms’ establishment. Later this interest diminishes. In order to be competitive it will be useful for firms to concentrate on different aspects of e-Commerce developed by successful firms and apply effective practices in their firms.

6.2 Direction for future research

Future research could benefit from looking more closely into B&B in relation to e-Commerce adoption in Sweden. It is clear from this study that especially this type of micro firms has still issues (are more concentrated on the small size of firms, have limited cooperation with booking websites, do not plan to develop online payment, etc.) in developing e-Commerce. Moreover, it will be interesting in the future to concentrate not only on barriers, but also on benefits e-Commerce in micro tourism firms. The understanding of real benefits of e-Commerce for micro tourism firms encourages the development of e-Commerce within them. Also, it will be interesting to analyze e-Commerce adoption within micro tourism firms not only from owners'/managers' perspectives, but from perspectives of their customers. As this study demonstrated the later has big significance for the firms and could play preventive or conductive role for e-Commerce adoption and further development. The last will help firms to develop those services in e-Commerce that need their customers. Another direction of future research could be investigation of relation between owners'/managers' own e-Commerce experience and e-Commerce adoption in firms. A more detailed research focused on other towns in Sweden, especially; on those where the micro tourism firms have customers with more recreational purpose of visit would provide valuable information.
7 References


Abou-Shouk, M., Lim, W., & Megicks, P. (2013a). E-Commerce and Small Tourism Businesses in Developing Countries: Drivers versus Boundaries of Adoption. Tourism Planning & Development, 10(3), 249-266.


APPENDIX 1: Interview questionnaire

A short description of the project; a notification about confidentiality, permission for audio-recording, etc.

BACKGROUND

1. I would firstly want to know what is your position at ‘X’ (company name)? Can you describe a little bit about your tasks, responsibilities? For how long have you worked there?

2. Why were/are you interested in this business/tourism?

3. What kind of education do you have?

COMPANY

4. I would like also to know a little bit about the company. Can you describe the company? How old is the company? How many employees do you have in total? How many rooms do you have?

5. Who are your main customers/visitors/tourists (e.g. families, old couples, students, business travelers)?
   - Who are your customers (mainly local or national / international visitors)? How long do they stay?
   - What are their purposes for visiting Umeå?

IDENTIFYING THE LEVELS OF E-COMMERCE ADOPTION

6. How important is communication for your company?
   - How do you usually communicate with your employees, customers, business partners, suppliers and government agencies?

7. How do you/your company use the Internet (including webpage and email) in your daily activities?
   - Do you use the Internet to reach (interact with) your customers and business partners? In what way?

8. How can you describe your webpage? Does it provide?
   - company information;
   - interactive information (virtual brochures; interactive trip planner; online reservation request form; FAQ; surveys; feedback forms; chat/forum, etc.);
   - financial transaction;
   - after sales service.

9. How do your customers/tourists/visitors use the Internet for communicating with you/your company?
- Do they order their rooms/accommodations on-line through your webpage (e.g. via email and/or a special reservation form)? How common is this?
  - Is there any special “type” of customers/tourists who orders rooms or services on-line?

10. How your customers make payments?
  - Do customers make payments online directly in your webpage? (If answer is no, see the next question)
  - Are you planning to add electronic payment option on your webpage in the future?

11. How important is e-Commerce for your company?
  - Is it an important aspect for your company development?

BARRIERS OF E-COMMERCE ADOPTION

12. Are you planning to improve the use of e-Commerce in your company? What are the obstacles that prevent this (for instance, security issues; difficulties in payment and delivery; lack of time to improve e-Commerce activity; lack of qualified staff; fear to fail to meet customers’ demand; low use by customers and suppliers, inability to keep prices low; lack of time to improve e-Commerce, lack of external support, etc.)?

13. What do you think does your company currently need the most for further development of e-Commerce within your company?

14. What is your attitude about electronic commerce uses within small companies?
  - Does firm size create opportunities or barriers for you/your company when you consider e-Commerce?

15. What do you know about uses of e-Commerce by other similar companies like yours?

16. How important and helpful is support from governmental organizations and industry associations for e-Commerce development within your company? Support-in form of financial investment improvement security and payment issues, trainings about implementation of e-Commerce, etc.

FUTURE PLANS

17. How do you think the company will develop over the next few years? How will the company use electronic commerce in the future?

18. Is there something that you want to add, that you consider is important to mention?

Thank you for participating!
APPENDIX 2: Letter to the potential respondents

Dear -------------,

I am a Tourism Master Programme student at Umeå University, and I am currently conducting research on how small tourism companies adopt electronic commerce (e-Commerce). The goals of my research are:

1. To provide public organizations and industry associations with insights that will help them implement supportive policies in order to develop or/and improve e-commerce within small tourism companies, and

2. To provide tourism companies like Yours with knowledge about the main challenges of adopting e-Commerce. This will help tourism companies to implement and/or improve their use of e-Commerce in order to be more competitive and increase sales.

I am writing to you because I want to learn more about the scope and nature of Internet and technology usage (e-Commerce) at (X…) company. I would greatly appreciate the opportunity to meet with you for about an hour or so.

I will call you in the next few days to set up a meeting time.

Thank you very much for your attention.

Sincerely,

Source: Adapted from Feldman, Bell, & Berger, 2003