Digital Capabilities of Internet based Consultancy Startups

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Abstract

Advanced information and communication technologies, social media, Internet, etc. have tremendously impact on flourishing Internet based Startup around the world. Although some Internet Startups e.g. Facebook, Google, Uber, Airbnb, and Amazon are very successful, but most of the startups fail in their early stage of journey. Previous research findings show that inadequate funding, fierce competition, lack of appropriate strategies and business model, etc. are main reasons for failure of startup firms. Researchers suggest that adequate fund and proper digital business strategies can significantly support these Startups to survive and grow. Digital technologies, which include hardware, software, applications, and interactive communication technologies can significantly enhance and increase capabilities of startups through creating values and competitive advantages. Although, now days digital capabilities in large organization is getting more importance to many researchers, however a few researchers are focusing on investigating the impact of digital capabilities of Internet based startups.

The study is conducted to examine how digital technologies create values for Internet based Startups Consultancy. Besides, the study investigates the digital capabilities of and how digital technologies enhance and increase the capability of Internet based Startups Consultancy firms. Five Internet based startup consultancy firms have been investigated. Case based qualitative research methodology has been followed. As research method semi-structured and informal interviews, and observation with the companies have been conducted.

The study finds that Internet based digital technologies profoundly facilitate startup companies. From business creation to service delivery, digital technologies have enormously increase digital capabilities of internet startup firms. In addition to academic researchers, the outcome of the research will be particularly important for existing startups firms and future entrepreneurs who has plan to establish new startup.

Key words

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# Table of Contents

1. INTRODUCTION ......................................................................................................................... 2  
   1.1. Background ................................................................................................................................. 2  
   1.2 Problem Description ...................................................................................................................... 4  
   1.3 Research Objectives and Questions ............................................................................................ 4  
   1.4 Justification and contribution to research .................................................................................. 5  
   1.5 Scope and Limitations .................................................................................................................. 6  
   1.6 Deposition ................................................................................................................................... 6  

2. LITERATURE REVIEW .................................................................................................................... 7  
   2.1 Digital Technologies ...................................................................................................................... 7  
   2.2 Type of Digital Technologies ....................................................................................................... 8  
   2.2.1 Computers and mobile devices ............................................................................................... 9  
   2.2.2 Internet ..................................................................................................................................... 9  
   2.2.3 Software/Applications .............................................................................................................. 10  
   2.2.4 Virtual and collaborative technologies ................................................................................... 10  
   2.2.5 Social Media ........................................................................................................................... 11  
   2.3 Internet Startup ............................................................................................................................ 15  
   2.4 Digital business ............................................................................................................................ 15  
   2.5 Digital business Strategy ............................................................................................................. 16  
   2.6 Digital Capability ......................................................................................................................... 19  
   2.7 Definition of Value and Value Creation Process ........................................................................... 21  
   2.7.1 Value co-creation ..................................................................................................................... 22  
   2.7.2 Value creation from strategic network .................................................................................... 24  
   2.7.3 Value creation from innovation ............................................................................................... 24  
   2.7.4 Value creation from Internet .................................................................................................. 25  
   2.7.5 Value creation from social media ............................................................................................. 25  
   2.7.6 Value creation from mobility .................................................................................................. 27  
   2.7.7 Value creation from resources ............................................................................................... 27  
   2.7.8 Value creation from digital business strategy .......................................................................... 27  
   2.7.9 Value generating from dynamic capabilities .......................................................................... 28  
   2.7.10 Value creation from transaction cost economics ..................................................................... 28
2.7.11 Value creation through Lock-in ................................................................. 28
2.7.12 Value through Novelty ................................................................................. 29
2.7.13 Value creation from collaborative technologies ........................................... 29

3 RESEARCH METHODOLOGY ............................................................................ 30
Research philosophy .............................................................................................. 30
3.1 Research philosophy ......................................................................................... 30
  3.1.1 Epistemology ................................................................................................. 30
  3.1.2 Ontology ........................................................................................................ 31
  3.1.3 Research philosophy of the thesis ................................................................. 31
3.2 Research Strategy ............................................................................................... 32
3.3 Research Approach ........................................................................................... 32
3.4 Data Collection method ...................................................................................... 33
  3.5.1 Interviews ...................................................................................................... 33
  3.5.2 Informal Interaction ....................................................................................... 33
  3.5.3 Observation ................................................................................................... 34
3.6 Interview setting and the Participants ............................................................... 34
3.7 Data Analysis method ....................................................................................... 35
3.8 Ethical Issues ..................................................................................................... 36
3.9 Justification of the Approach ........................................................................... 36

4. THE STARTUP CASES ....................................................................................... 37
  4.1 Startup Company A - Educational Consultancy Firm ................................... 37
    4.1.1 Core Activities and Services .................................................................... 37
  4.2 The Startup B - Educational Consultancy Firm ............................................. 39
    4.2.1 Services and Core Activities ................................................................... 39
  4.3 Startup Company C - Business Consultancy Firm ...................................... 41
    4.3.1 Services and Core Activities ................................................................... 41
  4.4 Startup Company D - Educational Consultancy Firm ................................... 43
    4.4.1 Services and Core Activities ................................................................... 43
  4.5 Startup Company E - Green Energy Consultancy Firm .................................. 44
    4.5.1 Core Activities and services .................................................................. 44

5. EMPIRICAL FINDINGS ..................................................................................... 46
  5.1 Establishing the startups ................................................................................. 46
5.2 Digital technologies Used (Hardware) ......................................................... 47
5.3 Digital technologies Used (Software) ............................................................ 47
5.4 Digital technologies Used (Internet) ............................................................... 48
5.5 Availability and access to information ............................................................ 48
5.6 Digital technologies for efficient communication and collaboration ............... 49
5.7 Digital technologies for efficient and effective marketing ............................. 50
5.8 Digital technologies for efficient and effective business processes ............... 51
5.9 Digital technologies for innovation and superior products/services ............... 52
5.10 Digital technology for customer’s satisfaction and value co-creation ............. 53
5.11 Cost reduction, higher growth and profitability ............................................ 53
5.12 Virtual business/Virtual market .................................................................... 53

6. DISCUSSION AND ANALYSIS ....................................................................... 54
6.1 Values created by the startups ....................................................................... 54
6.2 Increasing the use of digital technologies ....................................................... 55
6.3 Expanding new sources of value creation ....................................................... 55
6.4 Dominance of internet, social media and web technology ............................ 56
6.5 New business model, better products and services ......................................... 57
6.6 Increasing communication, collaboration and partnership ............................ 58
6.7 Limited capital requirement and cost minimization ....................................... 59
6.8 Expanding borderless and virtual market ...................................................... 59
6.9 Increasing capability/competitiveness/agility of startup firms ....................... 59
6.1 Challenges ...................................................................................................... 59

7. CONCLUSION AND FUTURE WORK ......................................................... 62
7.1 Limitations ..................................................................................................... 62
7.2 Contribution to the theory ............................................................................. 63
7.3 Contribution to practical application ............................................................... 63
7.4 Future research ............................................................................................... 63

References ............................................................................................................. 64

Amazon's first checkout-free grocery store opens on Monday ............................. 71

Appendices .......................................................................................................... 71
Questionnaire for interview ................................................................................. 71
Tables
Table 1 - Design Capital Map ................................................................. 18
Table 2 - Key conceptual developments in Digital Strategy ......................... 18
Table 3 - Participants in the interview ...................................................... 34

Figures
Figure 1 Social Media Landscape in 2017 .................................................. 12
Figure 2: Number of Social Media Users (in billions) from 2010 to 2021 ...... 13
Figure 3 - Facts of Social Media in 2017 ((Tuten and Solomon, 2017, p.4) .... 13
Figure 4 - The number of active users (in billions) of Facebook in June 2017 .. 14
Figure 5 - Capability dynamic model (Setia et al. 2013, p. 566) ................... 20
Figure 6- IS/IT Capability Model (Peppard and Ward 2016, p.364) ............... 21
Figure 7 - Value co-creation with customers (Aarikka-Stenroos and Jaakkola, 2012, p.17) ................................................................. Error! Bookmark not defined.
Figure 8 - The Social Media Value Creation (Tuten and Solomon, 2017, p.5) ... 26
Figure 9- Data Analysis Method (Lichtman, 2013, p.252) ........................... 35

List of abbreviation
ICT Information and Communication Technology
IS Information Systems
IT Information Technology
PDA Personal Digital Assistant
1. INTRODUCTION

This chapter describes the background of the study, its problem situation, research objectives and research questions. Furthermore, it describes the justification of the research, scope of limitation and design of the thesis.

1.1. Background

Digital technologies which are composed of hardware, software, application, web technology, social media, etc. are fundamentally “reshaping individual, social and cultural lives in historically unprecedented ways” (Lubian and Esteves, 2017, p.159). Information technology emerged in the 1940s leading to a dramatic shift of the “technological paradigm from analog to digital” in the 1990s (Lee and Lim, 2005, p.41). Digitization occurs in processes, services, and products (Lubian and Esteves, 2017, p.136). This digital revolution, known as the Third Industrial Revolution, refers to the transformation of analogue, mechanical and electronic technology to digital technology (Lubian and Esteves, 2017, p.159). The transformation from analogue to digital has occurred in many tools and technologies such as phones, digital cameras, newspapers, books, and many more communication technologies. The emergence of completely new devices and communication platforms such as the Internet, PDAs, scanners, smartphones, social media and communication technologies have dramatically improved and facilitated the way people work and communicate. Pervasive digitization has been occurring in “three main components: products/services, customers and the business model” (Lubian and Esteves, 2017, p.159). For instance, the Internet has completely transformed the music and newspaper industry. Instead of buying CDs and DVDs, people nowadays prefer to stream music and movies from online services such as Netflix, Spotify and other cloud-based platforms.

In the last couple of decades, digital technologies have been enormously reshaping traditional business processes and global communication and enabling organizations to work across boundaries of time, distance and functions (Pagani, 2013, p.617; Sambamurthy et al., 2003; Straub and Watson, 2001; Wheeler, 2002). Information technology has transformed the ways in which information is being created, exchanged, shared and redistributed. This caused dramatic power shifts in market channels and disruption of traditional sources of economic profits (Ghazawneh and Mansour, 2015, p.5). In addition, digital technologies have transformed the structure of social relationships for both consumers and enterprises (Pavlou and El Sawy, 2006, 2010; Susarla and Tan, 2012; cited in Bharadwaj et al. 2013).

As a result, information has become the key source of value-creation. The emergence of virtual markets opens new sources of innovation and has major sources of wealth and value-creation - not only for businesses but also for entrepreneurs and innovators (Amit and Zott, 2001, p.526; Ghazawneh and Mansour, 2015, p.3). These transformations have generated completely new sources of economic profits and the digital business strategy has become a source of value-creation (Bharadwaj et al., 2013).
Digital technologies, especially the Internet, enable new-generation entrepreneurs to develop new products and services as well as to reengineer and redesign existing products and services (Lubian and Esteves, 2017, p.159). Thus, Internet, social media and interactive communication technologies significantly contribute to new business models through enriching the interaction with customers (Brynjolfsson and Hitt, 2000). Besides this, digital technologies drastically reduce the operating costs (Lubian and Esteves, 2017). Internet-based startups require significantly lower capital and resources compared to traditional venture creations. Often, new business models such as Airbnb and Uber have been disrupting traditional businesses through offering innovative products and services.

During the last two decades, many service-oriented companies have been flourished due to the advancement of widespread Internet connectivity, mobile and web technologies, social media, improved financial systems and political stability across nations (Lubian and Esteves 2017, p.159). As customers are “quickly adopting to new channels – including web, social and mobile”, Internet-based communication have significantly contributed to create service-oriented consultancy businesses such as IT consultancies, education consultancies, online healthcare services and career consultancies (Lubian and Esteves, 2017, p.159). Digital technologies empower organizations with digital capabilities and enable these firms to provide their services around the world (Lubian and Esteves, 2017, p.159). As many of these firms operate their business virtually, establishing and operating requires significantly less amount of capital and other resources than traditional businesses - even less than other digital startups.

Some early Internet startups such as Google, Facebook and LinkedIn are tremendously successful. These are exceptional cases. However, thousands of startups run out of business within a short period (Coltman et al., 2001, p.464). Researchers have identified several reasons for the failure of these start-up companies: Studies found that whether Internet startups will grow or survive and successful primarily depends on the founder’s ability to develop business models, which might need several years to formulate a proper business model (Poole, 2001; Andries and Debackere, 2007). Another group of researchers identified several factors that have significant impact on survival, growth or failure of startups: an entrepreneur’s attributes, the firm’s strategies, environmental characteristics, positioning in the marketplace (Aldrich and Zimmer; Lieberman and Montgomery, 1988; Hannan and Freeman, 1984; Tushman and Anderson, 1986; Besanko, Dranove, and Shanley, 1996, Dixit et. al, 2009). Managing an adequate fund is the core problem of startup companies (Stevenson and Jarillo, 1990, Dixit et. al., 2009). However, the World Economic Forum Report (2011, p.11) identified several reasons which include ‘market size, market value creation and customer adoption’, ‘market value capture and business model’, ‘management team/people/human resources’, ‘discovery or technical feasibility’, ‘financial and liquidity’, ‘governmental/political/regulatory’, and ‘execution and scaling’ as key factors that affect early stage companies. Factors such as Internet-enabled digital technologies could play a critical role in creating and successfully operating Internet startups with
new business models, products and services (Lubian and Esteves, 2017). Since the 1990s, digital technologies significantly contributed to increase the efficiency and effectiveness by reducing operational costs and process time for service-oriented Internet companies (Lubian and Esteves, 2017). Digital communication technologies such as the Internet have significantly reduced geographical barriers to enable faster delivery of services with minimum transaction and service cost (Lubian and Esteves, 2017). Therefore, it can be perceived that these advantages of digital technologies can significantly facilitate the value-creation process and increase success rate. Motivated by this perception and the literature, the study has been conducted. This study examines how digital technologies create value for Internet-based startup consultancy firms as well as how digital technologies increase the digital capability of these firms to succeed and grow in the dynamic, complex and highly competitive world.

1.2 Problem Description

“As many seeds as ever are being planted, but fewer trees are growing to the sky” (Surowiecki, 2015). During the last two decades, Internet-based digital technologies have been significantly contributing to the establishment and growth of new startups. However, only a very few of these startups have been able to succeed (Coltman et al., 2001, p.464). Although a significant amount of researches were conducted on digital strategies, capabilities, and value creation, fewer research was conducted on how digital technology creates values and increases capabilities for startup companies. Identifying the research gap, the researcher has been motivated to conduct the study with the objective to investigate how digital technologies create values and increase capabilities of startup companies. The widespread use of Internet, social media and the availability of mobile devices to billions of people have enabled organizations to interact with a vast number potential customers and existing customers, identify their needs and provide customized and personalized products and services (Lubian and Esteves, 2017).

1.3 Research Objectives and Questions

Advanced information and communication systems enhance capabilities of businesses through enabling organizations to develop new business models, better customer services, reducing costs and increasing efficiency and effectiveness (Amit and Zott, 2001; Lubian and Esteves, 2017). Social media, web 2.0 and other digital technologies generate tons of information about customers. An Internet connectivity empowers organizations to provide better services to customers around the world (Brynjolfsson and Hitt, 2000). These advantages and values created by digital technologies could significantly increase the chances of success and survival of startup companies.

It will be investigated how digital technologies support small companies for growth and success. The study has been conducted on five consultancy startups, which are in an initial stage and planning to expand their business. The thesis answers the following research questions:

Research questions:
Q1. How can digital technologies create value for Internet-based startup consultancy firms?

Q2. How can digital technologies enhance and increase digital capabilities of startups?

1.4 Justification and contribution to research
Continuous and rapid advancement of information and communication technologies, internet and social media have altered the ways users communicate, interact and collaborate (Lubian and Esteves, 2017; Constantinides and Fountain 2008, p.68). Digital technologies have not only improved the life environment but also enhanced creativity, innovation, and entrepreneurship. Digital technologies enable organizations to create values through developing new business models, reducing communication and collaborative costs, collecting, analyzing and storing information, expanding market beyond the borders, etc. (Lubian and Esteves, 2017).

Tremendous improvements on digital technologies and social media enable startup firms to create more values, enhance, and increase the capability of startups to be more dynamic, interactive, flexible, and innovative. Although some Internet startups are very successful, the majority of newly born startups go out of business within two years (Coltman et al., 2001). The failure of startups has drawn significant attention to many researchers. Some researchers have identified that globally oriented Internet startups face serious challenges especially at early stages (Jones, Coviello, & Tang, 2011; Keupp and Gassmann, 2009; Kiss and Cavusgil, 2012, cited in Cannone and Ughetto 2014, p.272; Krishna et al., 2016). Global firms refers to those firms that start international operation within three years and most of the Internet firms have an aim for the global market (Cannone and Ughetto, 2014, p.272). Several factors including seed funding, time to get seed funding, rounds of funding, and severity issues also cause failure. Besides this, financial factors, entrepreneurial skills and innovative business model significantly affect startups (Grover and Saeed, 2004).

A handful of research papers have been conducted on Information systems alignment, e-business model, digital strategy, digital capability and value creation (Amit and Zott, 2001; Ilayperuma, 2010; Bharadwaj et al., 2013; Sandberg, 2014, Gothenstein and Persson, 2016; Packauskas, 2016). However, researchers show only a little attention to the use of digital technologies and value-creation on startup ventures. Identifying this research gap and understanding the significance of startup companies, the researcher has been motivated to conduct the study. Startup ventures are most important contributor to the economy of a country. Successful startups could create innovative business model such as Uber, Airbnb, and Red Hat, generate thousands of jobs (e.g. Alibaba) and revive economy and living standard (Libert, Wind, and Fenley, 2014; Tan et al., 2015). Through generating unique values, digital technologies could provide competitive advantages to Internet startups. Thus, digital technologies could be a key source to value-creation that enhances and increases core capabilities of Internet startup firms to be successful. These advantages and values provided by digital technologies could lead to the success of a startup. Therefore, the study has been conducted in order to examine how digital technologies create values for Internet based-startup
consultancy firms. In addition, the study will also analyze how digital technologies enhance capabilities of Internet startups.

1.5 Scope and Limitations
This study has been conducted on five Internet-based consultancy firms. The main objective of this study is to analyze how digital technologies create value and increase and enhance digital capabilities of startups companies to become successful in the long-term. The study has investigated following key concepts: digital technology, value-creation, Internet startups, digital business, digital capability and digital strategy. The case companies have all been established after 2014 and the majority of these startups are just two years old. As a result, the study covers Internet-based and newly established consultancy firms. In addition, all of the case companies are established and registered in Sweden.

1.6 Deposition
The rest of the thesis is structured as following:

Chapter 2 - Literature Review
Chapter two describes the previous research and literature review which is relevant to the thesis’ topic. The literature review mainly covers digital technologies, internet startups, digital business, digital strategy and capability, value-creation and social media.

Chapter 3 - Methodology and Methods
Chapter three includes the research paradigm, the methodology and the methods applied to collect, analyze and interpret the data. Besides this, the theoretical background has been discussed in order to ensure ethical consideration, the validity and reliability, of the research.

Chapter 4 - The Startup Cases
Chapter four includes business descriptions of each startup case. The business description includes motivational factors and stories to establish the startups, products and services, business, process and functions of the startups.

Chapter 5 – Empirical Findings
Chapter five describes the findings of the research.

Chapter 6 - Discussion
Chapter six consists of an analysis of the findings and the literature.

Chapter 7 - Conclusion
Chapter seven contains the conclusions, the contribution of the study in academic and scientific field, and business research. The ideas for future research will be discussed.
2. LITERATURE REVIEW

This section explores and describes literature review within the field of digital technologies, value creation, internet startups, digital business strategies, and capabilities. This chapter specifically overlooks different perspective internet startups, digital technologies and innovation, value creation, and digital business.

2.1 Digital Technologies

For many years, different terms and concepts including “digital technology, information technology (IT), information and communication technology (ICT), and educational technology”, etc. have been used interchangeably to describe digitalization (Salavati, 2016, p.7). ICT is defined as the “convergence of computer technology, telecommunication technology and media technology” (Bradley, 2010, p.185). Digital technologies interchangeably ICT include all hardware, software, sensors, applications, web technologies and other technologies that can transforms picture, text, sound, video, and other information into binary digits that can be recognized, processed, stored, and transmitted by electronic devices (Hu 2016, p.3). There are three unique characteristics of digital technologies- the reprogrammability, the homogenization of data, and the self-referential nature of digital technology (Yoo et al., 2010, p.726). Over the years, miniaturization of hardware e.g. solid state drive, microprocessors, increasingly powerful microprocessors, high-speed Internet connectivity, social media platforms, etc. enable to digitize key functions and capabilities of analogue devices such as phones, cars, television, books, communication platforms, etc. (Yoo et al., 2010, p.724).

Through integrating digital technologies traditional business organization are enabled to re-engineer and redesign processes as modular, distributed, cross functional, and global processes which further enable these organization to carry out work across boundaries of time, distance, and function (Sambamurthy et al. 2003; Straub and Watson 2001; Wheeler 2002; cited in Pagani 2013, p.617). Tremendous improvement of cloud computing, big data, social media platform, Internet of Things, and other advanced technologies have been changing the rules of game in many industries through disruption of business models, products and services (Pagani 2013 p.617). For instance, social media platforms such as Facebook, Snapchat, LinkedIn, etc. have profoundly changed the way people interact with others (Lubian and Esteves, 2017). Airbnb, an internet based accommodation services company makes it possible for house owners to rent spare rooms to travelers (Zervas, Proserpio, and Byers, 2017). As a result, world business ecosystems have become more complex, dynamic, and innovative (Iansiti and Levien, 2004; cited in Pagani 2013, p.617). Information technology enables organization to redesign process to a high performing organizational design through providing more flexibility and supportive technologies (Ramirez et al., 2010, p.418). This transformation generates new capabilities, which are not available in existing traditional business processes (Ramirez et al., 2010). However, Yoo et al., (2010, p.724) argued that ‘digital technology’s transformative impact’ have remained unnoticed in IS literature.
Startups are often established to develop technologically innovative products and services, which often might require advanced tools and technologies. However, in order to perform managerial activities, in addition to regular tools and technologies, startups prefer easy-to-implement tools, such as whiteboards and real-time tools that are easy to use for handling fast-paced changing information (Paternoster et al., 2014, p.1215). Internet-based service oriented startups specifically consultancy firms require highly capable interactive communication platform to perform core processes such as collecting information, communication, and collaboration, delivery of services etc. In general, startups take advantage of those technologies that can be easily accessible, manageable, available, and can be utilized to perform required activities. For instance, some common and vastly available digital technologies are laptop, tablet, smartphone, projector, multipurpose printer, digital whiteboard, project management software, Microsoft office, shared calendar, google docs, dropbox, and different social media platform for communication such as Facebook, Skype, LinkedIn, Twitter, etc. Nowadays social media platforms, specifically Facebook, YouTube, Instagram, and LinkedIn, are used as a highly effective communication media to interact with existing and potential customers. Besides, Website, these social media platforms are not only interactive but also highly efficient to manage. In addition, social media and other interactive communication technologies have drastically reduced communication cost. Furthermore, cloud-computing platforms reduce the cost of storing data through proving storage facilities. Thus digital technologies remove geographical and communication barrier to consultancy firms. Digital technologies enable consultancy startups with capabilities “to sense and respond to business opportunities and threats quickly” (Gosain et al., 2004; cited in Paternoster et al., 2014, p.1215).

2.2 Type of Digital Technologies
Due to rapid advancement and usability, Information and Communication Technologies (ICT) interchangeably digital technologies have become a part not only for people’s everyday life but also for organization (Bradley, 2006b; Harper et al., 2008; Pachler et al., 2010; cited in Salavati, 2013). Bradley (2010, p.184) argues that convergence is occurring among ICT, life environment (home, work, public and virtual environment), globalization technologies, values, norms, labor market), and life role (professional, citizen, private and virtual rules). The converging technologies are empowered by “smaller, cheaper, and more powerful technical components” and can be classified into three categories: “computer technology, tele-technology, and media Technology.” (Bradley, 2010, p.184). Bradley (2006a; 2006b, 2010) argues that life environment, including everyday life, is being filled and influenced by more powerful, mobile, ubiquitous, and intelligent technical devices (Salavati, 2013, p.9; Bradley, 2010). Digital technologies can be broadly divided into three categories- computer technology, tele-technology and media Technology. Digital technologies can also be classified into two categories. In the following paragraphs, key development of digital technologies has been described.
2.2.1 Computers and mobile devices

Since the inception in 1960s with large mainframe computers, there has been tremendous improvement on computers with dramatically increasing performance and storage capacity, while drastically reducing size (Harper et al., 2008; cited in Salavati, 2013). With increasing computing power, capacity and miniaturization of computing devices e.g. smartphone, smartwatch (https://www.apple.com/lae/apple-watch-series-3/), RASPBERRY PI (https://www.raspberrypi.org/products/), etc. enable users to carry computers apparently everywhere. As result, it has been predicted for the 2020s that there will be several computers and afterward in the Ubiquity Era, there will be a thousand computer per user (Harper et al., 2008; cited at Salavati, 2013). Nowadays, due to availability and reduced price, for a single user, it is very common to have several computers such as desktops, workstations, laptops, PDA, and Smartphones.

With tremendously increasing capabilities e.g. computing power, functionalities, large storage capacity, variety of applications, powerful cameras, etc. mobile phones/smartphones have become the ubiquitous form of computer (Salavati, 2013). As the usability increases and price goes down, smartphones are no longer expensive, luxurious and privileged devices, rather than become devices/commodity for everyday use for everywhere (Bradley, 2006a; 2006b; Harper et al., 2008; Lebo et al., 2012; cited in Salavati 2013).

2.2.2 Internet

Internet, which was developed in 1970s and publicly available in 1992 after the development of the World Wide Web by Tim Berners-Lee, is one of the greatest innovation of 21st century (Lubian and Esteves, 2017, p.2). Internet is defined as “a global network consisting of interconnected networks, in which millions of computers can communicate with each other via dedicated routers and servers” (Lubian and Esteves, 2017, p.5). Today, internet is available and used by over 3.4 billion people across the world (Lubian and Esteves, 2017, p.2). Since the inception, Internet has crossed three major steps: the Web 1.0, the Web 2.0 and now the Web 3.0. The first generation of the Web is called Web 1.0, which enabled users/visitors only read contents. The Web 2.0, the second generation of web development enables users to both read, write, and interact themselves. Web 2.0 paves the ways for the development of social media platforms. The Web 3.0, current and third generation web development known as “semantic web” enables users to use internet to connect information and develop highly interactive data-driven and ubiquitous information systems (Lubian and Esteves, 2017, p.6). In this generation, the world has been experiencing many innovative data driven, internet based disruptive companies with new business models, products and services, such as Uber, airbnb, netflix, spotify, etc. Besides social media companies such as Facebook, LinkedIn, etc, are offering more services to the users. New generation internet and highly advanced web technologies create enormous opportunities for users and organizations and have brought the possibilities and potentials to create mainly three types web-based business models - “business-to-consumer (B2C), business-to-business (B2B) and consumer- to-consumer (C2C)”(Lubian and Esteves 2017, p.18).
2.2.3 Software/Applications
Software/Applications include all kinds of application and software used in computers and smart devices to collect, store, analyze binary data and information, to communicate and collaborate. Many of these software can be developed in house. However, in house development may be highly expensive. However the good news is that all most all applications and software can be purchases and outsourced from third party companies such Microsoft, Adobe, SAP, Oracle, etc. Many of companies e.g. SAP, IBM, Microsoft, FortNox, offer cloud based applications known as software as service (SAS), which is significantly cheaper than purchasing and developing an application.

2.2.4 Virtual and collaborative technologies
There has been significant advancement in virtual and collaborative technologies, which facilitates team works and collaboration. Collaborative technologies such as voice/video conferencing tools, instant messaging, web-based applications such as google doc, google calendar, slack, social media, etc. with flexibility and functionalities, have significantly increased efficiency and effectiveness in communication and team work through reducing geographical barrier, communication cost, and time. Web based collaborative technologies have been enabling employees/professionals to work from distance. Besides, virtual, shared and collaborative technologies have been facilitating organizations to outsource works. There are many applications for virtual meeting and collaboration. They are

Email – By using email, users can send texts and different types of documents. Currently email platforms such as Gmail through applying cloud-based technologies ag. as Google Drive, Dropbox, enable users to transfer large files.

Instant messaging tools – There are many applications available for instant messaging such as Skype, Facebook messenger, WhatsApp, etc. Many of these applications e.g. Skype, Facebook Messenger offer instant live audio and video calling service, transferring different types of documents e.g. photos, text, and thus often reduce the use of email. Apart from internet connectivity, cost communicating through instant messaging applications has zero cost.

Voice conferencing tools - Voice conferencing tools enable live voice conferencing utilities among people living in geographical areas, apart from social media mention above, there are many applications are available such as Adobe Connect for voice conferencing.

Video conferencing tools - Video conferencing tools such as Skype, Facebook Messenger, Lync, Skype, Join.me., Adobe Connect, etc. enable users to make live video call and conferencing from different places (Daniulaityte, 2016, p.14).

Web based collaborative applications - There are different web based application available such as google doc, slack, scratchboard, etc. virtualize static applications. For instance, google doc (free application offered by Google) substitutes Microsoft office...
applications (Word, Excel, PowerPoint) enabling many people to work in a single document.

2.2.5 Social Media
Social media is defined as “the online means of communication, conveyance, collaboration, and cultivation among interconnected independent networks of people communities, and organization enhanced by technological capabilities and mobility” (Tuten and Solomon 2017, p.3). Social media is primarily mobile and web technologies through which individuals, communities, and organizations create, share, discuss, and modify user-generated content e.g. text, photos, videos, etc. and communicate with others (Kietzmann et al., 2011, p.241). Today billions of people are using social media platforms such as Facebook, WhatsApp, Twitter, LinkedIn, Skype, YouTube, Wikipedia, Flickr, snapchat, Instagram, Slack, Wordpress, etc. share and communicate with others all around the world (Tuten and Solomon, 2017, p.4). Considering the utility offering, social media platform can be divided into six categories. These are:

Sharing platforms: Facebook, YouTube, Twitter, Flickr, Instagram, Spotify, Vimeo, Slideshare, 500px, Pinterest, etc.

Mobile messaging: WhatsApp, Facebook Messenger, SnapChat, iMessage, Skype, Viber, Tango, classic messaging and webmails includes Gmail, Yahoo Mail, etc

Professional networking: LinkedIn, Viadeo, Xing, Plaxo, Ning, Nextdoor, Houzz, Meetup, Eventbrite, etc.


Publishing platforms: WordPress, Blogger, TypePad, Medium, Wix, Weebly, Ghost, SquareSpace, Wikipedia, Wikia, Tumblr, Myspace, etc.

Discussing platforms: Github, Reddit, Facebook, Groups, 4chan, Tapatalk, Quora, Stack, etc.
The social media platforms provide tremendous amount utilities and opportunities to share, communicate and interact with billions of users around the world. Different social media platform provides different services. The social media landscape in 2017 clearly indicates that the richness and advancement of web-based communication technologies have been attracting and engaging billions of people around the world. The following table shows how fast the number of social media users has been increasing since 2010. These billions of actives social media users have been creating groups, communities, forums, etc. For instance, Github users share computer programming related issues, different Facebook groups/pages are created to for different purposes. For instance, if someone to study in Sweden can follow the Facebook page named Study in Sweden (Source: https://www.facebook.com/studyinsweden/), which is an official Facebook page of Swedish higher education authority. If somebody interested to work and know updated information about IKEA- the largest furniture manufacturer and retailer in Sweden, can follow the LinkedIn page of IKEA (source: https://www.linkedin.com/jobs/search/?keywords= IKEA%20Group&location= &locationId=se%3A0).
Figure 2: Number of Social Media Users (in billions) from 2010 to 2021
(Source:https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/)

Figure 3- Facts of Social Media in 2017
(Tuten and Solomon, 2017, p.4)
Facebook

With more than 2 billion active users, Facebook is the most dominant social media platform. Facebook provides both synchronous and asynchronous interactions, whereas users can interact with others in real time, share contents such as text, images, videos, music, games, etc. with others (Tuten and Solomon 2017, p.3). Recently, Facebook enabled its users to stream live video. Besides, Facebook Messenger application, which is recently separated from Facebook enables it users, to send messages in the form of text, audio, live video, etc. from mobile devices. This utility has been significantly replacing regular cellular phone call and is very cost effective. To use Facebook Messenger applications, both of the users- receiver and sender require internet connectivity. Facebook provides opportunities for users, which includes individual

![Facebook Monthly Active Users](https://techcrunch.com/2017/06/27/facebook-2-billion-users/)

Figure 4- The number of active users (in billions) of Facebook in June 2017

(person, groups, community, organizations, companies, etc to create their own page called Facebook to share and promote themselves from anywhere in the world. As a result, companies can share and promote their business, products and services through Facebook. Opening and promoting Facebook page usually does not require money until today. However, if a person or company wants to promote business in very specific areas or anywhere Facebook offers Boosting services with certain amount of premium. However, the premium through advertising is the main source of income for Facebook. Compared to traditional media such as Television, newspaper, magazine, billboard, etc., advertising and promoting through Facebook is more Flexible and cost effective.

LinkedIn

LinkedIn is the largest web-based professional network, which has 530 million users from more than 200 countries around the world (LinkedIn, 2018). In 2016, Microsoft bought LinkedIn. LinkedIn users consist of professionals, employment seekers, organizations, startups to largest companies. As users, particularly professionals and
employment seekers create and update their resume in LinkedIn, with 530 million users it has become the largest online repository of resume. LinkedIn provides an opportunity to post the advertisement in LinkedIn and find suitable employee/profession through paying a premium. On the other hand, for employment seeking users, LinkedIn is a great source to search for jobs and other opportunities. LinkedIn offers many functionalities and facilities to users share and communicate with others, including blogging, sharing post, photos, videos, publishing articles, and interacting with other users etc.

2.3 Internet Startup

Internet startups are those firms, which are born digital, operated and managed through using Internet. Digital consultancy firms provide consultancy services through the Internet. Pervasive use of ubiquitous information and communication technologies, access to Internet and mobile phone, rich and powerful social media ecosystems provide new dimension to consultancy firms operating business worldwide. Besides, pervasive use of Internet dramatically reduces the cost communication and thus make startups more efficient and effective in providing services. In addition, social media provide these firms to access to potential customers and expand market around the world.

Advancement of information and communication technologies, during the last decades paved the ways to established millions of start-up firms. Although, some firms are very successful such as Google, Facebook, LinkedIn, Alibaba, etc. However, their number is ironically too small (Coltman et al., 2001, p.464) coined this phenomenon as a bubble and bubble burst. Over the years, researchers have pointed several reasons that lead to failure of dot.com companies. Some researchers identified that managerial and economic forces hinder the growth of these firms. Poor business model, lack of appropriate strategy, lack of resources and infrastructure, etc. also are causing death to many startups (Javalgi et al., 2004, p. 465). However, Javalgi et al (2004 p.465) argue that ‘natural selection processes like living ecosystem might be the reason of the failure of these firms. On the other hand, innovativeness can increase the likelihood of survival through enhancing startups' market power, reducing the costs of production, and allowing the creation of dynamic capabilities and absorptive capacity (Teece et al., 1997; Zahra and George, 2002 cited in Hyytinen et al., (2015, p.576). However, in their study Hyytinen et al., (2015, p.576) found that “interaction of innovativeness and entrepreneurs' higher appetite for risk” significantly reduce the survival prospects of startups. Although, many researchers identify that lack of necessary skill is the key factor for failure of startups, but digital business strategies combined with innovative leadership skills can survive and lead to success of an organization (Bennies, 2013, p.635).

2.4 Digital Business

Digitization refers to the encoding of analog information into digital format (Yoo et al., 2010). Digitalization has wider implications that include the transformation of existing socio-technical structures, business processes, functionalities products and services that were previously mediated by non-technological artifacts (Yoo et al., 2010; cited in
Kurti, 2015, p.3). Digital firm can be defined as those firms in which nearly all of the business processes and organization’s key business relationship with customers, suppliers, and employees are organized, managed and coordinated through digitally enabled and mediated technologies (Laudon & Laudon 2016, p.44). Digitized products and services have some intrinsic values and characteristics that make them distinct from non-digital products and services. Therefore, the value creation and capture from digital products and services require a new set of assumptions, as production, distribution, and consumption of digital products and services distinct features from traditional processes (Shapiro and Varian, 1998; Benkler, 2006; cited in Kurti, 2015). Transactions and marginal costs or reproduction costs for digital products are significantly reduced (Amit and Zott, 2001; Faulkner and Runde, 2010). For instance, ebooks, music videos, digital photos have apparently zero reproduction cost (Kurti 2015, p.3). For service oriented digital firms, cost of services mainly depend on resources used. The resources could be human resource, technological infrastructures e.g. computers, other devices, software, etc. Digital technologies particularly web-based technologies could be extremely useful to provide services geographically distant areas and thus expand market.

2.5 Digital business Strategy
Strategy refers to the formulation of basic organizational mission, purposes, objective and policies and program strategies to achieve them; and the method needed to ensure that strategies are implemented to achieve organizational ends (Steiner and Miner, 1979, cited in Robson 1997, p.4). Business strategy is collection of organization’s “decision rules and guidelines that define a business’s scope and growth direction” (Ansoff, 1965, cited in Robson 1997, p.4). Whereas digital business strategy is defined as organizational strategy, which is formulated and executed by leveraging digital resources (Bharadwaj et al., 2013). Digital strategy also refers to long-term, a directional plan which organization decides what and how digital resources will be used for business (Earl, cited in Peppard and Ward 2016, p.29). Organizations develop and apply digital business strategy to meet market requirements and compete through offering digitally enabled products and services. (Woodard et al., 2013, p.538). Digital business strategy requires emphasis on strategic thinking and long-term planning for the effective management and optimal utilization of information: information systems (IS) and information technology (IT) (Peppard and Ward, 2016, p. 30).

At the beginning Information System era, a majority of research primarily focused on improving the efficiency of internal operations and decision making (Yoo et al., 2010, p.734). Although the terms Information Systems (IS) and Information Technology (IT) are used interchangeably, however, there is a difference between IS Strategy and IT Strategy (Peppard and Ward, 2016). IT strategy refers to the strategy about information technologies, infrastructure and expertise, whereas IS strategy is concerned to establishing required information systems in any organization (Earl, cited in Peppard and Ward, 2016, p.31). Since 1980s, information systems research was focused on to achieve competitive advantages through integrating inter-organizational processes, customers and suppliers to enhance efficiency and effectiveness (Johnston and Vitale
1988; Pavlou and El Sawy 2006; Piccoli and Ives, 2005; Sambamurthy et al., 2003, cited in Markus and Loebbecke, 2013). Business organizations mainly focus on IT alignment which is conceptualized as integrate business strategy and IT strategy (Queiroz, 2017, p.21). However, the theory and concept of digital business strategy is still in the early stages. Many firms continue to treat different facets of digital shifts within traditional domain, such as marketing, operations, information systems, and internet technologies (Bharadwaj et al., 2013, p.480).

Although in many research papers emphasis were given on aligning IS/IT strategies with business strategy, but in formulating and implementing digital business strategy, organization should give more importance and priority in digital technology (Kalakota and Robinson, 2001). In today's, highly competitive and technology driven global business ecosystems, digital business strategy is completely different from regular IT strategy and therefore should be considered as business strategy itself (Bharadwaj et al., 2013, p.473). In order to face the challenges and be competitive and to survive, decision makers, managers, entrepreneurs need to fundamentally rethink about digital technology “not as functional-level response, but at a fundamental driver of business value creation and capture” (Bharadwaj et al., 2013, p.480). In recent years, formulating digital business strategies has drawn attention for many researchers (Yoo et al., 2010, p.730). The researchers urge for in-depth analysis and examination of the logic of digital business strategy and state:

“IS scholars need to question and complement their received models of aligning IT to business strategy, identifying core IT resources, and managing IT as a standardized commodity….We need new strategic frameworks that are aimed at deliberately harnessing the unique capabilities of digital technology that are embedded into products to gain competitive advantage” (Yoo et al., 2010, p.730)

Bharadwaj et al., (2013, p.480), analyzing the impacts of digital strategy, suggests four themes - “Scope, Scale, and Speed of Digital Strategies and Sources of value creation and capture” to develop digital business strategy. On the other hand Woodard et al., (2013, p.538) conducted study on ‘design based competitive actions, and emphasis on the concept of ‘digital innovation’ and theoretical understanding to formulate digital business strategy. According to these researchers, the most important elements of a organization’ design capital are ‘digital artifacts such as software components and their associated interfaces’ (Woodard et al., 2013, p. 539). Teece (1986) argues that the value of design capital may be highly firm- specific and Woodard et al. (2013) suggests that design capital could be source competitive advantages or disadvantages. Design capital integrate and facilitate internal systems and processes that enhance business capabilities. Woodard et al., (2013) proposed a conceptual model to formulate digital business strategy, where they identified design capital and design moves “as fundamental to the emerging logic of digital business strategy”. These authors describe design capital in two terms – “option value and technical with high-quality design capital being characterized by high option value and low technical debt.” Since business ecosystems are changing frequently, therefore in forming digital business strategies
firms should maintain flexible strategies to developing products and service to respond the changing market (Woodard et al., 2013).

Table 1- Design Capital Map

<table>
<thead>
<tr>
<th>Technical debt</th>
<th>I: Option Constrained</th>
<th>IV: High Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low debt, but few options to fuel innovations or development of complementary assets</td>
<td>Low debt and many options; strongly positioned for innovation and platform leadership</td>
</tr>
<tr>
<td>High</td>
<td>High debt and few options; weak positions saps resources with little strategic benefits</td>
<td>III: High Quality</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Low debt and many options; strongly positioned for innovation and platform leadership</td>
</tr>
</tbody>
</table>

Option values (Woodward et al. 2013, p.541)

Digital business strategy can be emerged from resource-based view and dynamic capabilities perspective (Bharadwaj et al., 2013, p.481). Therefore, organization requires to formulate digital strategy about products-market segments, as well as undertake digital strategy about their business ecosystem (Iansiti and Levien, 2004). For instance, Alibaba Group has created its own business ecosystems, which provide online marketplace, banking, and logistics support to small business organization and other organizations. However, company ecosystems includes not only customers and suppliers but also producers of complementary products and services, logits, outsourcers, and financiers (Iansiti and Levien, 2004)

Table 2 -Key conceptual developments in Digital Strategy

<table>
<thead>
<tr>
<th>Conceptual development</th>
<th>Unit of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosystem</td>
<td>Business Community</td>
</tr>
<tr>
<td>An orchestrator’ extended network of</td>
<td>Set of a possible overlapping</td>
</tr>
<tr>
<td>Digitized Business Process</td>
<td>Standardized Business Processes</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Digitized business process that employ open standards and may be tailored (by selection and extension) to an orchestrator unique preferences</td>
<td>Standardized digital business processes performed in common by most members of a business community including competing orchestrators.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Platform</th>
<th>Shared Digital Platform</th>
<th>Business Community Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital platform supporting simultaneous use by multiple companies, each of which can independently customize business processes for its own ecosystems</td>
<td>Digital platform tailored to the processes of a business community and used in substantially the same way by most community members, including competing orchestrators.</td>
<td></td>
</tr>
</tbody>
</table>

(Markus and Loebbecke, 2013, p.650)

### 2.6 Digital Capability

Digitization refers to digitization, reengineering and transformation of processes, functionalities, products and services (Lubian and Esteves, 2017). Capabilities can be defined as firm's ability to assemble, integrate, and deploy valued resources to achieve its purposes (Amit and Schoemaker 1993; Russo and Fouts, 1997; Schendel, 1994). In resource-based view, capability is defined firm’s ability to utilize resources in organizational processes to achieve desired output (Drnevich and Croson, 2013, p.485). Whereas IT capabilities refer to the firm’s ability to mobilize and deploy IT based resources in order to create value in combination with other resources and capabilities (Bharadwaj, 2000).

The term IS capabilities emerged in the mid-1990s and rooted in resources based view (Tan et al., 2015, p.252). IS/IT capability, often called as digital capability is primarily depends on organization’s ability to successfully deploy appropriate IS/IT resources as well as to design, implement and operate new process and applications and unlock the expected business value (Peppard and Ward, 2016, p.363. As result digital capabilities is defined as a set of capabilities “required to compete in the digital world, including digital leadership, technology skills (SMAC), digital governance, innovation, collaboration, change management and some technological capabilities, such as unified technology platform, data analytics, and business and IT integration.”(Lubian and Esteves, 2017, p.15)

Due to tremendous digitalization of business, developing digital capability has been considered as a new dimension in the research field of digital business strategy (Pavlou
and El Sawy, 2011; Sambamurthy et al., 2003; cited in Setia et al., 2013, p. 582). However, digital capabilities can be increased and enhanced through investing in technologies and developing flexible and dynamic organizational capabilities (Bharadwaj et al., 2013). In the resource-based view, an organization could gain and achieve competitive advantage by deploying resources (Barney 1986; Dierickx and Cool, 1989; Grant, 1991; Ray et al., 2004; Wernerfelt, 1984; cited in Wu, 2007, p.549).

Investing in digital technologies also increases and enhances organizational dynamic capabilities. Dynamic capability is defined as the organization’s ability to integrate, develop, reconfigure and re-engineer capabilities with existing resources to respond to the changing business ecosystem and to achieve organizational goals and objectives (Teece et al., 1997). The term 'dynamic' refers to the “capacity to renew competences so as to achieve congruence with the changing business environment”; and 'capabilities' refers to the strategic management that adapts, reengineer, integrate, and reconfigure internal and external business processes, organizational capabilities, resources, and operational competences to meet the requirements of complex and dynamic continuous ecosystems (Teece et al., 1997, p.515). Dynamic capabilities enhance and enable a firm to reconfigure and restructure its capability to coevolve with the business ecosystem and response to external demand (Setia et al., 2013, p.582). Therefore, dynamic capabilities as an emerging and potentially interactive approach can be applied to analyze and understand potential sources of competitive advantages (Teece et al., 1997). Dynamic capabilities evolve over time with firm’s adaptation and integration of new capabilities (Lavie, 2006, p.157).

Today due to tremendous advancement of information technologies, customers/people have more information about products and services. Therefore customers/buyers/clients have more options and more bargaining power than before (Lubian and Esteves, 2017). On the other hand, digital technologies, particularly internet and social media ecosystems enable organization to collect more information about potential market, customers, suppliers, competitors, etc. (Lubian and Esteves, 2017). For internet startups, dynamic capabilities could be useful to meet changing customer demand and remain competitive. Service oriented internet startups can apply the following dynamic capability model.

![Figure 5 - Capability dynamic model](Setia et al. 2013, p. 566)
Digital business strategy concentrated on localized capability-building may significantly increase localized service performance (Setia et al., 2013). A firm can generate and IT capability through creating following values.

1. Increased value from information e.g. Facebook, Google, eBay
2. Value creation from Multi Sided Business Model e.g. Google entry into mobile app Android to influence and control advertising
3. Value creation through coordinated business models in networks
4. Value appropriation through control of digital industry architecture

Organizational competences should be considered as key factors in formulating digital capability model (Peppard and Ward, 2016). These developed a widely used digital capability model.

2.7 Definition of Value and Value Creation Process

Value can be defined as perceived utilities of any products or services considering ‘what is perceived and what is given” (Zeithaml, 1988, p.14; cited in Woodruff, 1997, p.141). In business market the concept of value can be further described as “the perceived worth in monetary units of the set of economic, technical, service and social benefits received by a customer firm in exchange for the price paid for a product, taking into consideration the available suppliers' offerings and prices” (Anderson, Jain, and Chintagunta, 1993, p.5; Woodruff, 1997, p.140). Considering buyers perspective value is the tradeoff between quality benefit or services they receive of products or services and the price for the products and services (Monroe I990; Woodruff, 1997, p.140 ). From a customer perspective, value in service oriented firms includes all of the services received by customers from providers within given period of time through paying specific amount of price.

In service-centered view, customers do not buy goods or services, but they buy offerings (Gummesson, 1994; cited in Packauskas, 2016, p.15). Values of services differ
from company to company and perceived usefulness to customers in a specific context. There are many different types of consultancy startups such as healthcare, career development, business consultancy, education consultancy, IT consultancy, accounting and law firms, etc. exist. These startups provide various services to customers. Therefore, values and the process of value creation of consultancy firms differ. Digital technologies, specifically broadband internet connectivity, social media, and interactive communication platform enable these firms to expand market in unprecedented way and to provide services to clients more efficiently and effectively. Digital technologies can assist in many different ways in value creation for Internet startups consultancy firms. The following paragraphs, the value creation processes are described.

The processes of value creation and value delivery have significantly changed due to continuous improvement of digital technologies including communication technologies, big data analytics, internet of things, mobile computing devices, social media, ubiquitous technology, etc. which have tremendously impacted the ways people communicate and interact, and make decisions (Constantinides and Fountain, 2008, cited in Garcia et al., 2014, p.68). Digital technologies have changed the structure of market power and shifted in power business to consumer (Lubian and Esteves, 2017). Internet and social media have created virtual market with unprecedented reach, creativity, and low cost information access and processing, marginal communication cost, etc. open unlimited possibilities for value creation (Amit and Zott, 2001, p.498). On the other hand, business has access to a vast amount of data about market, competitors, etc. As a result, through identifying market trends, companies can deliver innovative, customized and personalized products and services more efficiently and effectively than before. Moreover internet based service oriented company can maximize utilization of digital technologies in creating and delivering services to customers.

2.7.1 Value co-creation
Digital technologies, particularly Internet and social networks enabled modern consumers access to vast amounts of information and content, which enable consumers to exert power and participate in the value-creation processes (Dibb and Simkin, 2015; Lubian and Esteves, 2017). Besides, through active participation, consumers can play roles that are more active in co-creation of products and services (Ernst et al., 2010; Garcia et al., 2014, p.69). Web based digital technologies enable organization to offer personalization and customization products and services at a massive scale. For instance, Dell, a leading manufacturer of computer and other equipment, offers to its customers to customize and build their own computer through using Dell’s official website. Web based digital technologies enable consultancy firms also to deliver highly customized and personalized services at significantly low cost to individual customer. Virtual environments, social networking platforms, groupware, web based technologies, and shared networks bring together service providers and existing and potential customers through providing access to content, and interact with each other (Bertot et al., 2010; cited in Pacauskus 2016, p.15). Due to Continuous interaction and
iterative learning process between consultancy firms and clients, maximize value creation (Vargo and Lusch, 2004; cited in Pacauskus, 2016, p.15).

Value co-creation could also happen among team members working together using shared networking technologies and applications such as project management tools, google doc, shared calendar, etc. Since the goals of service oriented companies to provide customized services offering, in the value creation process consumers can be considered as co-creator and their involvement can maximized in customization process (Vargo and Lusch, 2004, 2008; cited in Pacauskus, 2016, p.16). As consultancy firm mainly deals with very specific problem of clients/consumer, client’s involvement in co-creation process is extremely important.

From organizational perspective value can be divided into two categories monetary worth of individual customers to the organization and organization’s worth to owners (Woodruff, 1997, p.140). Value of individual varies depending on contribution to firm’s profitability over the lifetime. Over the years due to globalization, increasing competition and advancement of digital technologies, traditional creation strategies are gradually losing importance. Therefore, companies are focusing more on customers demand and trying to leverage internal efficiency with external resources, which includes customers, partners, or even competitors (Lovelock and Young, 1979; Prahalad and Ramaswamy, 2004; Zhang and Chen, 2006; Prahalad and Krishnan, 2008; Zhang and Chen, 2008, p.241). Through participating in value creation process, customers could be a new source of competences (Zhang and Chen, 2008, p.243).

Customer can participate in value creation process in two ways. Firstly, customers can participate as a partner or co-producers rather than external parties (Firat et al., 1995; cited in Zhang and Chen 2008, p.243). Customers, active participation in value co-creation process could increase “customization capability and the service capability” (Zhang and Chen, 2008, p.243).

Figure 7: Value co-creation with customers (Aarikka-Stenroos and Jaakkola, 2012, p.17)

Customer’s participation and interaction with value creation process may enable organization to produce and deliver the right and apparently better products and services they want (Whiteley and Hessan, 1996; Zhang and Chen, 2008, p.243). Digital technologies make it much easier, efficient and effective for organization and customer to participate and collaboration. Researchers
identify that through co-creation with customers; organization may gain new competences and obtain more competitive advantages (Zhang and Chen, 2008, p. 248).

Marketing literature and practice converge around the idea that, especially when it comes to services, customers play different foundational roles in value-creation mechanisms. Marketing theory recently introduced the concept of the service dominant logic (SDL), according to which the customer is always a co-producer of value, not a target of that value, because he or she mobilizes knowledge and other resources, and this effort influences the success of a value proposition. According to this view, the customer becomes embedded in the service offering and ultimately is responsible for the value added to the process (Vargo and Lusch, 2004).

2.7.2 Value creation from strategic network

Strategic networks are stable inter-organizational ties, which can take form of strategic alliances, joint ventures, long-term buyer-supplier partnership and are strategically important to participating firms (Amit and Zott, 2001, p.498). Strategic questions are also highly important for startup consultancy firm in building strategic network to create values and growth (Amit and Zott 2001, p.498). These questions could be:

1. Why and how are strategic networks of firms formed?
2. What is the set of inter-firm relationships that allows firms to compete in the marketplace?
3. How is the value created in networks?
4. How do firms, differential positions and relationships in networks affect their performance?

Through access to information, shared knowledge, market, and technologies, strategic networks reduce risk and generate economies of scale and scope. (Amit and Zott, 2001, p.498)

2.7.3 Value creation from innovation

Digital technologies accelerate innovation and enhance creativity in developing new products and services, expanding networks and market, and delivering customized products and services more efficiently and effectively (Lubian and Esteves, 2017). Long ago, it was argued argued that innovation as key source of value creation (Schumpeter, 1934; cited in Amit and Zott, 2001, p.496). There are several sources of value creation such as the introduction of new goods/new production methods, the creation new markets, the discovery of new supply sources, and the reorganization of industries (cited in Amit and Zott, 2001, p.496). Identifying new customers and expanding market, creating services and developing effective service delivery method can be key source of value creation for Internet based consultancy firms. Clients/consumer of As Internet based consultancy firms provide could be anyone and in anywhere in the world. Digital technology enable entrepreneurs to develop completely new business model. For instance, Uber has brought completely different
and unique taxi services called ride sharing (Cannon and Summers, 2014; Christensen, Raynor, and McDonald, 2015).

Considering the impacts on society and business ecosystems, innovation can be divided into three categories- ‘sustaining/incremental innovation’, ‘breakthrough Innovation’, and ‘radical/disruptive innovation’ (Lubian and Esteves, 2017, p.49). Sustaining/incremental innovation focuses existing technology and an existing market to develop new product and services. Whereas breakthrough Innovation provide innovative, unique and state of art products and services, which require constant innovation and therefore may not last long (Lubian and Esteves, 2017). In most of the cases, breakthrough innovation creates significant competitive advantages for a short period of time. The radical innovation better known as disruptive innovation such as Uber’s shared riding service and airbnb’s accommodation service disrupts traditional market or even eliminates competitors with completely innovative products and services and value proposition that never exist before (Cannon and Summers, 2014; Lubian and Esteves, 2017). After successfully establishment, disruptive innovation usually provides tremendous utilities and advantages to society and the world.

2.7.4 Value creation from Internet
Over the years, due to a tremendous increase in the number internet users, mobile computing devices e.g. smartphones which are vastly available in reasonable and cheaper price, new generation web technologies, which are interactive, big data analytics, machine learning, and rich social media, internet has become a major source of value creation for many organization. Consumers often logged on internet to search for product and services they needed. Therefore, it is very important for marketers or organization to know the products and services that customer are looking for (Haron, Johar and Ramli, 2016, p.164). In fact, many companies e.g. Amazon, collect customers log information and analyze the information to recommend right products or services to individual customers. Besides, many companies such Netflix and Amazon (Amazon’ Prime Member) create customer database for millions of customers. Analytical tools such as Big Data analytics and machine learning have been applied to analyze huge amount of customer’s data. Powerful search engines e.g. Google, Bing are extremely capable to provide accurate information. These search engines enable users to find required product and services.

2.7.5 Value creation from social media
Since the last decade, the world has been experiencing the bubble social networks, which have gained attention of many researchers (Neben, Lips and Trenck, 2015, p.783). Major social networks such as Facebook, whatsapp, Instagram, LinkedIn, YouTube, etc offer many functionalities and utilities such communicating, coordinating, and interacting with others, creating virtual group/community, sharing documents, text, post, photos, video, playing online games, and many more (Neben et al., 2015). Due to these versatile and diversified functionalities and services, more and more people are connecting and spending significant amount of time with social media.
With enormous functionalities and capabilities, social media have become a key tool for communicating, collaborating, and marketing, and thus become a new source of value creation (Haron, et al., 2016, p.162). Researchers argue that many purchase decisions arise from social networks such as Facebook, Instagram, Twitter, YouTube, etc. (Haron, et al., 2016, p.162). For instance, a study identified that in Malaysia, out of 60.7% of internet users, 81% of them take suggestions or look for advice in social media before buying (Wegert, 2010; Haron et al., 2016, p.162). Thus, with billions of users, social media have become the largest marketplace.

![The Social Media Value Creation](image)

Figure 8 - The Social Media Value Creation (Tuten and Solomon, 2017, p.5)

The table above shows the process and underlying infrastructure of value creation in social media. These day more and more users voluntarily share personal information and provide opinions on almost anything or any topic and thus generate huge amounts of user-generated content such as opinions, locations, photos, videos, news, preferences, etc. (Moedeen and Jeerooburkhan, 2016, p.303). Social networks have been significantly changing the ways customers communicate with potential sellers. Facebook, the most dominant social media with the highest number of users, enables individuals, groups, and organizations to create personal, group, or business pages on Facebook. The Facebook pages created by users have become an effective and efficient tool to communicate and interact with a large number of users. (Facebook has more than 2 billion active users in 2018). For Internet-based services-oriented companies, Facebook including Facebook Messenger could be a highly effective tool for communication, and interact with existing and potential customers and thus promote and provide services more efficiently and effectively. Moreover, many social networks such as LinkedIn, Facebook, Google Plus, are extremely capable with powerful analytical tools, which enabled organizations to identify target markets and promote business. (Moalla, Nabli, and Hammami, 2017, p.391)
2.7.6 Value creation from mobility
Gradually increasing computing power and capacity, while decreasing size of computing devices made it possible to carry mobile devices e.g. latest generation smartphones, Notepad, laptops which are very powerful and designed enormous capabilities and functionalities. These powerful high end devices combined with broadband interactivity enables individual and organization to work virtually from anywhere (Anckar and D’Incau, 2012, P.48). The key value proposition of mobility are removing geographical barriers, flexibility, the creation of choice, freedoms, removing time constraints, etc for customers, employees and organization. (Keen and Mackintosh, 2001; Anckar and D’Incau 2012, P.48). Mobile devices connected with internet enable both consumer and organization to communicate and interact 24/7. This unique feature of mobile digital technologies has tremendously contributed to expand mobile commerce. (Anckar and D’Incau, 2012, P.48). For internet based service oriented company, mobile devices can be a very effective tool to communicate, interact and provide service to customers.

2.7.7 Value creation from resources
Resource-based view suggests that firm may have unique bundle of resources and capabilities that lead to generate values and competitive advantages. For instance, entertainment company Netflix has gathered huge amount of information of millions users and through analyzing the information Netflix offers highly personalized recommendation to individual user. Through using power computing platforms, artificial intelligence, big data analytics and machine learning, Amazon tracks search history of users in their website and offers recommendation to buy products and services. Moreover, through applying deep learning and artificial intelligence Amazon has recently launched a checkout-free grocery store at Seattle in the United States of America (Amazon, 2018).

Using advanced digital technologies, service oriented firm can also develop unique set of capabilities. Consultancy firms can gather and store current and historical information of all existing and potential clients, competitors, services, and market. Analyzing this historical data will lead new knowledge, insights and might lead to develop new services. Through utilizing digital technologies, which are highly cost efficient and effective to access and manage, startup firms can perform core activities such collecting, storing, and information, marketing, communication and collaborating with clients and business partners, managing accounts and finance, etc. (Lubian and Esteves, 2017). Beside, virtual market generates new sources of value creation, where internet based organizations can explore borderless market with immense information and communication capabilities and resources (Amit and Zott, 2001, p.497)

2.7.8 Value creation from digital business strategy
Digital business strategy could also be a source of value creation. A firm can generate IT capabilities from following values. These are:

1. Value creation from information e.g Facebook, Google, eBay
2. Value creation from multi sided business models—e.g. Google entry into mobile app– Android to influence and control advertising

3. Value creation through coordinated business models in networks

(Bharadwaj et al., 2013)

2.7.9 Value generating from dynamic capabilities
Dynamic capabilities primarily exist in organizational business processes, specifically in coordination, integration, and reengineering of business processes (Teece et al., 1997; cited in Amit and Zott, 2001, p.497). Rapid advancement of digital technologies provides new tools and techniques to create innovative products and services (Lubian and Esteves, 2017). Information and communication technologies enable organizations to communicate, coordinate, collaborate, integrate, and take better decision more efficiently and effectively. For instance, social media platforms and web technologies enable startup firms to communicate with customers with minimum costs all over the world (Lubian and Esteves, 2017). Due to these advantages many organizations uses social media as a key marketing and communicating platform.

2.7.10 Value creation from transaction cost economics
Digital technologies particularly internet based communication and collaboration, and advanced technology based solutions significantly increase transaction efficiency (Lubian and Esteves, 2017). Transaction efficiency has become a major source of value creation (Amit and Zott, 2001). Transaction costs of consultancy firms include the time spent by consultant and employee for communicating and collaborating with customers, business partners, and other parties, collecting, storing and analysing data, cost of travel, physical space for meetings, and processing paper document. (Reiley and Spulber 2001, cited in Amit and Zott, 2001, p.499). Internet based communication platform and social media has significantly increased efficiency and reduced time and effort. Investment in information technology can reduce coordination costs, transaction risk and transaction efficiency, which can be a key value driver (Williamson, 1975, 1983, 1989; Clemons and Row; cited in Amit and Zott, 2001). Transaction efficiency increases when cost per transaction decreases (Amit and Zott, 2001). Internet, social networks and shared interactive communication platforms have drastically reduced transaction and communication cost. Besides these technologies, through time and place constraint, enable firms to provide services beyond the border to a vast number of client. Through reducing transaction cost, digital technologies increase capability of firms to provide additional services with dynamic pricing. Availability of information about target market and customers and ‘cheap interconnectivity of virtual markets’ reduce customer search cost and bargaining cost and take informed decision (Amit and Zott 2001, p.503)

2.7.11 Value creation through Lock-in
Value creation in business could be enhanced by repeated transactions by customers. Although, customers have many options to choose and buy products and services in highly competitive virtual market, lock-in discourages switching of customers and
business partners to competitors (Amit and Zott, 2001). Customers/clients’ retention can be achieved in several ways. Firstly, as a part of loyalty program customers, who transact frequently could be rewarded. Secondly, innovation and continuous improvement of products, processes, and services through developing high standards can increase brand value, trust, and loyalty among existing and potential customers and partners. (Teece, 1987, cited in Amit and Zott, 2001, p.504). Internet companies, specifically service-oriented companies can create virtual communities to boost frequent interactions on different issues. Virtual communities enhance frequent transactions and contribute to increase trust and loyalty (Hagel and Armstrong, 1997, cited in Amit and Zott, 2001). Complementary services and efficiency may attract and retain customers, clients, and partners and can be source of value creation particularly for Internet startups delivering consultancy services.

2.7.12 Value through Novelty
Removal of geographical and physical constraints, availability information, and high interactive communication among customers, partners, and collaborators make it possible for internet based consultancy firms to offer innovative, customized and personalized complementary products and services at minimum cost (Wilson, Thatcher and Brown, 2015, p.702). Internet startups can achieve competitive advantages to being first to market with unique products and services, which are essential prerequisite to being successful in markets (Amit and Zott, 2001).

2.7.13 Value creation from collaborative technologies
Modern collaboration technologies e.g. applications such as Slack, Google Doc, shared communication platform such as Skype for audio and video conferencing, are extremely useful, efficient and effective virtual team works (Wilson, Thatcher and Brown, 2015, p.702). These technologies enable organizations to outsource works, employ from right persons from geographically distant areas, reduce communication, collaboration and operations cost and thus add competitive advantages (Wilson et al., 2015). Using collaborative technologies such as Slack or Google Doc, many users can work together and share information from anywhere. Service oriented firms can also use collaborate technologies to work with employees, partners, agents, customers, and other groups at minimum cost with high efficiency and effectiveness.
3. RESEARCH METHODOLOGY

This chapter presents methodology of the study. Case based study has been followed in this research. Research and data collection and analysis methods setting have been presented in this chapter. Besides, limitations, ethical issues and justification of the research methodology have been elaborated.

Table 3 - Chosen Methodology for thesis

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Methodology selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research philosophy</td>
<td>Interpretive research</td>
</tr>
<tr>
<td>Research strategy</td>
<td>Qualitative research</td>
</tr>
<tr>
<td>Scientific approach</td>
<td>Deductive</td>
</tr>
<tr>
<td>Research method</td>
<td>Qualitative semi-structured interviews</td>
</tr>
<tr>
<td>Data collection</td>
<td>Primary data from interviews and observation</td>
</tr>
<tr>
<td>Empirical data analysis method</td>
<td>Pattern matching</td>
</tr>
<tr>
<td>Scientific credibility</td>
<td>Recorded and transcribed interviews. Best practice</td>
</tr>
<tr>
<td>Ethical considerations</td>
<td>Anonymous and informed respondents</td>
</tr>
</tbody>
</table>

3.1 Research philosophy

Research philosophy refers to the paradigm or worldview of researchers (Creswell, 2014). The paradigm consists of four elements: epistemology, ontology, methodology and ethics (Denzi and Lincoln, 2005; Punch, 2013).

3.1.1 Epistemology

“Epistemology concerns what constitutes acceptable knowledge in a field of study” (Saunders, et al., 2009, p. 112). Epistemology mainly concerns with the theory of knowledge answering the questions about “How do I know the world?” and “What is the relationship between the inquirer and the known?” (Denzin and Lincoln, 2005, p. 183). Interpretivism and positivism are the two key research philosophy.

Interpretivism

The interpretivist philosophy focuses on subjective perspective, emphasizing and interpreting human action (Saunders et al, 2011). In the same reality, the meaning human action could be different. Interpretive a researcher pursues to understand “the intersubjective meanings embedded in social life. [and hence] to explain why people act the way they do” (Gibbons, 1987, p. 3) cited in (Orlikowski and Baroudi, 1991, p. 13). Interpretive studies assume each human being has own intersubjective meaning of any particular action or phenomenon when they interact with surrounding ecosystems (Orlikowski and Baroudi, 1991, p.5).
Interpretivism is usually characterized by in-depth research with small but detailed samples and empirical data. Therefore interpretivist philosophy is more suitable for qualitative research (Saunders et al, 2011).

**Positivism**
The Positivism philosophy takes objective perspective of reality, where the reality “external, objective, and independent from social actors” (Saunders, et al., 2009, p. 119). Observable phenomena are regarded as credible data and large samples of data is collected applying structured research approaches (Saunders et al, 2011). Therefore, this philosophy is more suitable for quantitative research.

### 3.1.2 Ontology
Ontology refers to the nature of reality (Saunders, et al., 2009; Prasad, 2005). Ontology concerned with the perception and view of a researcher on social reality. Two main ontology philosophies are realism and relativism. Realist ontology stand on objective perspective in which reality can be measured and does not depend on human interaction (Blaikie, 2007). On the other hand, the Relativist ontology argues that reality is built upon on human interaction. In this philosophy, the meaning of reality in a specific social phenomena might varies person to person. Therefore, the outcome of the study on a same social phenomena in different time by different person will also be different (Guba et al., 1994). Hence, validity of the study is applicable and limited to specific time, context, and scenario.

Methodology is selected considering ontological and epistemological perspective and concerned with “the best means for acquiring knowledge about the world” (Denzin and Lincoln, 2005, p. 183). On the ethics concern with research’s values and sense of right and wrong of researchers in the study.

### 3.1.3 Research philosophy of the thesis
Considering all of these perspectives interpretive research methodology has been applied in the study to make sense of the world from perspective cultural and social context (Walsham, 2006, p.320). Although there of the case companies provide similar services (education consultancy), the case companies provides different services. The study is coinducted on Relativist ontology, that will provide interpretation of reality of from interviewee’s perspective.

During the investigation specifically in collecting data through formal and informal interviews, observations, and other interactions, the researcher positioned himself as a neutral observer. The researcher was aware that involved researcher can get deeper access to people. However close involvement might cause some disadvantaged as involved researcher/action researcher need significantly more amount of time than a neutral researcher does. Besides, subject might be less open and honest with the researcher and researcher might miss the fresh outlook on the particular situation (Walsham, 2006).
3.2 Research Strategy
Qualitative research method and quantitative research method, are the two widely used distinctive method in scientific research (Bryman and Bell, 2015). In these methods, researchers follow different data collection and data analysis techniques (Saunders et al., 2016).

Qualitative research
According to Bryman and Bell (2015), a researcher follows qualitative research for in-depth analysis of the phenomenon of society. In qualitative research, researchers focus on exploration and understanding of social problems through analyzing data from respondents through answering questions how and why (Creswell, 2014). In this method, in-depth interviews and observations are conducted to collect and analyze empirical data from usually from a small group of participants. The data is usually non numeric, in form of text, notes, photos, video, etc.

Quantitative research
In quantitative research, in general numerical data representing “objects, organizations and people” (Verhoeven, 2011, p. 29) are obtained through surveys and questionnaire from a large number of respondents (Bryman and Bell, 2015). This numerical data is analyzed using statistical tools such as SPSS or Excel and the findings are usually shown in the form of figures, graphs, statistical data (Saunders et al., 2016). In this method, the outcome or the result could be duplicated or tested by other researchers (Verhoeven, 2011).

Research Strategy of this thesis
Qualitative approach has been followed in the study. Qualitative approach has been mainly selected for the objective of the study and the case companies. Beside, qualitative approach is considered as emerging type of research in information systems research and gaining attention to researchers in many social science field (Orlikowski and Baroudi, 1991; Klein and Myers 1999; Walsham, 2006). In qualitative study ‘without imposing their outsider’s priori of understanding of the situation’ interpretive researcher try to analyse, interpret, and understand particular phenomenon within culture and contextual situation.(Orlikowski and Baroudi, 1991, p.5)

3.3 Research Approach
In deductive approach, exixting theories guide a researcher, in which theoretical framework is formulated before collecting empirical data (Bryman & Bell, 2011). In this approach usually research questions are generated /derived from literarure and analyzed through performing empirical study (Bryman & Bell, 2011). Deductive research approcah is widely used in the scientific research (Bryman and Bell, 2011) in hypotheses are formulated and texted based on existing theory (Saunders, et al., 2009).

Inductive research approach is quite opposit to deductive research approach. An inductive research approach theory is the outcome of research. Empirical findings and analysis lead to the theory (Bryman & Bell, 2011). The inductive research approach,
often follows qualitative research, in which a researcher gathers empirical data through interviews, observations, etc, and conduct analysis following categorization, pattern recognition and conceptualization (Creswell, 2014).

**Research Approach of this thesis**

The study follows deductive approach, where the author reviews existing literature and formulates the research questions. In order to answer the research questions, semistructured interviews will be conducted on the case companies. The empirical data will be analyzed following categorizing, conceptualizing and pattern recognizing. The finding will be analyzed and discussed in light of existing literature.

**3.4 Data Collection method**

In the study, five Internet based Consultancy Startups have been selected as case company of the study. The participant companies were invited for the study through personal interaction and Facebook page – ”Växjö Campus” which has more than 6000 members, who are student of students at Linnaeus University. Four of the company were selected from personal interaction and the startups were known to researcher before. In the Facebook invitation, couple of startup showed interest to participate. However due to specific requirements considered in selecting service oriented startups, one company was selected and later interviewed and analyzed. As the most of the company have launched recently, very smaller in size with few very employees and limited operation, these company does not have enough document to be analyzed for the investigation. Beside, these firms does not have any functional department or business processes. Therefore, in data collection three modes of data collection method - semi structured formal and informal interaction, and observation have been conducted.

**3.5.1 Interviews**

Considering interview as a key way of accessing the interpretations of informants in the field, five in-depth interviews have been conducted (Walsham, 2006). CEOs of the selected case startups participated in the interview and shared information. The interviews were conducted and recorded in Sweden. Due to geographical barrier, one of the interview was conducted through Skype.

Five long semi-structured interviews have been conducted with the CEOs of the startups. The interview were voluntary. Through personal interactions and Facebook, participants were invited for interviews However, during informal interaction in a person and Facebook, participants were asked question for more clarifications and additional information.

**3.5.2 Informal Interaction**

In order to get updated news about the performance and activities of the case startups, continuous interaction and communication have been maintained with the interviewees during through out of the study. Whenever any questions arises or any information or clarification required, interviewee were communicated through face-to-face conversation, over skype and Facebook Messenger for updated information. During the study, each of the interviewee participated at least two informal interaction.
3.5.3 Observation
Since these companies are working on expanding businesses, regular observation and interaction with the interviewees and the companies provides significant insight about progress and performance of these companies. Two interviewee were observed for several days. During the observation, the researcher tried to understand and document what they do, how they run company, with they interact and communicate, which technologies they use in these processes, etc. As the selected participants for observation were students and living in the Linnaeus University Växjö Campus, the observation were conducted at participant homes and in the University.

3.6 Interview setting and the Participants
Five long and intensive interviews with the CEO of the case startups were conducted. Four of the interviews were conducted in a classroom at Linnaeus University, Växjö Campus. One interview was conducted through Skype, as the interviewee lives in another city. However, each of the interview, participants were asked choose suitable time and place for interview. Time and location for interviews were selected according to preference of participants. All of the interviews were recorded with consent of participants for further analysis.

Table 4 - Participants in the interview

<table>
<thead>
<tr>
<th>Participants</th>
<th>Background of Interviewee</th>
<th>Participated in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founder and CEO of Startup</td>
<td>The participant is a master student(Business Innovation and Engineering) at Linnaeus University. The applicant has successfully established five Startups and has 15 years experiences of business.</td>
<td>Interview</td>
</tr>
<tr>
<td>Founder and CEO of Startup B</td>
<td>The participant has completed master degree in Entrepreneurship at Linnaeus University. The applicants has several years of experiences as educational consultants.</td>
<td>Interview, Passive observation</td>
</tr>
<tr>
<td>Founder and CEO of Startup C</td>
<td>The participant is a master student (Marketing) at Linnaeus University. The applicant has several years of experiences as educational consultants. Besides, education and the business, the participant has established and runs a non-profitable NGO.</td>
<td>Interview, Passive observation</td>
</tr>
<tr>
<td>Founder and CEO of Startup D</td>
<td>The participant is a master student (Entrepreneurship and Supply Chain Management) at Linnaeus University. Besides educational consultancy, the applicant has established another Inter- based business (imports leather goods from Bangladesh and sells in Sweden)</td>
<td>Interview</td>
</tr>
</tbody>
</table>
### 3.7 Data Analysis Method

Creswell (2009) suggested several basic steps for researchers to follow for analyzing data. The analysis process begins with collecting, organizing and preparing all the required data for research. In the next step, researcher goes through and carefully look upon and identify key points, which are important for the study. Researcher starts coding process in these steps to identify patterns, cluster, heading and subheadings. In the final step, according to Creswell (2009), research interpret and analyze the findings, and end in conclusion and direction of future research. Lichtman (2013) explained these steps in more detail and further classify this process into six steps. These steps are:

- **Step 1. Initial coding.** Going from responses to summary ideas of the responses
- **Step 2. Revisiting initial coding**
- **Step 3. Developing an initial list of categories**
- **Step 4. Modifying initial list based on additional rereading**
- **Step 5. Revisiting your categories and subcategories**
- **Step 6. Moving from categories to concepts”**

(Lichtman, 2013, p.252)

![Data Analysis Method](Lichtman, 2013, p.252)

In data analysis of the study, the author follows the six steps suggested by Lichtman (2013). Data analysis process begins with transcribing recordig of interviews into text. All of the interviews will be transcripted into text. The authors will pick key words and phrases to answer the research question. Afterwards, all of the key words and phrases will be categorized into different categories. The categories could be type of digital technologies and their uses, business processes, funtions etc. The final step of this
process is conceptualization. In this step the author will analyze key words in all of the categories and then further categorizes into concepts, which will be analyzed and discussed afterwards.

**Pattern matching**
According to Yin (2014) for the data analysis of case studies, pattern matching is considered as the most suitable techniques. In this techniques, explanations of predicted outcome is described before data collection and afterwards compared with findings. Researchers analyze empirical data and compare finding with theatrical of the research (Yin, 2014). Thus internal validity of the study is ensured. In this thesis pattern matching will be conducted, whereas both comparative analysis be conducted between literature reviews and finding. Besides, comparative analysis will also be conducted among case companies.

### 3.8 Ethical Issues
The researcher was fully aware that some unintentional harm to firm could be happened during the investigation. Diener and Crandall (1978) identified four main areas of concern: harm to participants, lack of informed consent, invasion of privacy, and deception (cited in Walsham, 2006). Therefore, following ethical principles have been followed and maintained throughout the study. Participants were informed about purpose of study, interviews and use of data collected from participants. All of the interviewee willingly agreed to participate and share information.

Confidentiality, anonymity, and privacy of each of the participant have been strictly maintained during collecting and analyzing confidential data collected from interviewees. Name gender, race or social position of the participant have not mentioned in the report. Besides critically important information, which could harm the participant organization has not mentioned in the paper or in other participants. However, the researcher was aware that it is not unusual to invade some elements of privacy and device about the aim of research (Walsham, 2006). The study has been conducted for academic purpose and fulfillment of the master program. All of the participants have been informed about the purposes of the research.

### 3.9 Justification of the Approach
There are three specific issues and perspectives - “authenticity, plausibility and criticality” to interpretive researcher (Walsham, 2006, p.325). In academic research, authenticity refers to presence of researchers in the text to convey the ‘vitality of life’ in the research ecosystem (Walsham, 2006). The second perspective, plausibility concerns about how well the writing interacts with personal and professional experience of the potential reader. The third, perspective, criticality ensures that the text proves readers to consider their ‘taken-for-granted ideas and beliefs’ (Walsham, 2006, p.325.) These three criteria have been followed throughout the study.
4. THE STARTUP CASES

This chapter briefly describes the startups cases, which include business process, services and the background of interviewees. To keep unanimous, the startups are named A, B, C, D and E. Most of these startups are owned and operated by single person and do not any functional department. A brief introduction and background of the interviewees are included to have clear views of how and which context these startups were established.

4.1 Startup Company A- Educational Consultancy Firm

The Startup is an educational consultancy firm founded as a sole proprietorship in 2016 in Sweden. The firm was established with the aim to provide educational consultancy services to clients from Asian countries, primarily Bangladesh, India and Pakistan. Currently, the company operates business in Asia, Europe and Africa. The founder of the company solely operates this firm. The firm has collaboration with several educational consultancy firms and agents, who communicate and deliver potential clients for the company. The company also has collaboration with seven universities in Sweden and three universities in Czech Republic. Considering economic values and impact on profitability, these universities are the main clients and partners of the firm. Currently, the company is extensively working on expanding collaboration with more universities and other educational consultancy firms. The firm provides services to clients from Bangladesh, India, Africa, United Kingdom, Portugal, Sweden, and China (Interviewee 2017). The vision of this company is to reach more people through expanding business through collaborating with other consultancy firms and opening offices in different countries.

4.1.1 Core Activities and Services

The core function of the company is to assist applicants/clients to get admission in Swedish universities and process residence permit in Sweden and European countries. Besides, the firms provides guidance to clients for scholarship, housing and job. Being a startup company running by a person, the company does not have any specific functional department. However, as the company is getting bigger with significantly more clients and collaboration, the firms has plan to establish an office in Bangladesh and recruit several employees. In order to deliver consultancy services, the firm performs following functions. These are:

Communication

Communication is the most important activity of the company. The firm mainly communicates with existing and potential clients and universities. Communication with clients begins, when an applicant shows interest to study abroad and need assistance in admission and other process. Clients usually get to know about the company through different sources. Majority of the clients of this startup are referred by existing clients. In order to communicate and promote the company, the startup has a Facebook page. The Facebook page has 699 followers. Using the Facebook page, the company shares information and promote business. The Facebook page is also primary source
for many potential clients to know about the company. The company usually communicates with existing clients through Facebook messenger, phone and email. Among these communication media, Facebook is the cheapest, interactive and the most effective medium of communication. Facebook messenger is used for exchanging text messages, sharing instant messages, audio and video call, and file transfer. The firm regularly shares information in its Facebook page to provide latest news and information to existing and potential clients regarding university admission, scholarships, jobs, and residence permits. However, email is primarily used for transferring documents among clients, universities and other parties. The company always maintains continuous interaction with the universities, specifically during the admission session. The company usually sends email to communicate with clients and partners. To make any business contact, the primarily send email to respected and authorized person. According to the interview, it is often take long time and efforts to find respected person to communicate at universities. Sometimes the interviewee visits universities to attend meetings in Sweden. The company also uses skype for video calling specifically to attend distance meeting with partner universities. Without this communication platform, it will be almost impossible for the company to continue this business.

Information Systems
Collecting, storing, analyzing, and disseminating information are core functions of the company. In order to provide consultancy services regarding admission, the firm collects all required documents including academic certificates, resume, etc. in the form of pdf file from applicants. The company mainly collect these files/documents through email and stores these documents in computer for further analysis. The company analysis all the documents of applicants and admission requirements of universities. The firm as a routine activity collects information of universities to expand business operation and to search for new opportunity. The company usually looks for information about admission processes, rules and procedures, academic programs, admission requirements, languages, scholarship opportunities, etc. Besides, the firm also do research on country profile and residence permit procedures. To search this information, the company uses completely rely on Internet, websites of universities and other web portals. To search information about any university, the company visit websites of universities. The company usually finds required academic and admission related information in the website of universities. To find information regarding residence permit, the company visit official website of that country. For instance in Sweden, the company usually finds required information regarding residence permit in the website (https://www.migrationsverket.se) of Swedish Migration Agency. According to the interview, it is highly efficient and convenient for the company to collect information using Internet.

Marketing
The company uses Facebook as the key marketing tool. The firm regularly shares updated news, information, and links in its Facebook page. The company interacts with
future client through Facebook messenger. Often many visitors of the Facebook page from different parts of the world ask for information about admission, jobs and scholarship opportunities. The company instantly replies to those questions. Many of these visitors have already become clients to this company. To enhance communication capability, the startup is working on developing an official website. The website will contain information about the company, services it provides, achievements, collaborations, etc.

**Finance and Accounting**

The startup has an agreement with an accounting firm. The accounting firm, situated at Linkoping, manages accounts and transitions relation information of the firm. The company communicate with the accounting firm through phone call, email and skype. The company exchange important documents through email. The company maintains all finance and accounting information using MS Excel, MS Word and diary.

### 4.2. The Startup B - Educational Consultancy Firm

In 2014, the interviewee established an educational consultancy in Bangladesh. The startup B was established in Bangladesh in 2014 with other name. However, due to some problems in registering the company in Sweden, in 2015, the interviewee established another educational consultancy firm in Sweden. The company was launched as a sole proprietorship business with present name. The firm has two team members - the CEO and an associate. The company has collaboration with other people and consultancy firms, who provide clients. The company works for the clients from Bangladesh, Iran, Sweden, Denmark, Norway, Czech Republic, and Lithuania. The company also worked with Canadian universities. However, due to problem with business agreement, the company stopped working with Canadian universities. The mission of the company is to provide unique and different services to clients rather than traditional services offered by existing student consultancy firms.

#### 4.2.1 Services and Core Activities

The firm provides educational consultancies to its clients. The educational consultancy services includes preparing required documents for admission in higher educational institutes and residence permit in respective countries. Besides admission to universities, the firm also guide applicants to manage scholarship, housing, and job. To provide these services, the company primarily performs several functional activities. As a startup company, the firm does not have any separate functional department. However, the company performs following functional activities.

**Information Systems**

Managing information systems is one of the core activities of the company. As a routine job, the company collects different types of information. The company mainly collects information about higher educational institutes, admission requirements, tuition fee, scholarship opportunity, residence permit, job facility, and country profile. To collect this information, the company uses on Internet. According to the interviewee, to gather
information about universities of any particular country, the company search on Google, writing ‘universities of – specific country. Afterwards searching with this information, a list of universities of that particular country appears. To know detail about specific university, admission process and other relevant information, the interviewee selects that university from the list and visit the website of that university. Usually the company finds all of the required information such as program and courses, admission process, requirement, tuition fee, scholarship opportunity, ranking of the university, transportation and communication housing and job facilities from the website of that university. In order to find information about residence permit and procedures and other rules, the interviewee visits immigration website. The company can collect detailed information about immigration and other rules and procedure. For instance, if the firm needs to know about residence permit in Sweden, the firm can find required information in the website of Swedish migration board.

Communication
Communication is the most important functional activity of the company. As an educational consultancy firm, the company communicates with existing and potential applicants, universities, collaborators, immigration authority and accountant. To communicate with applicants, the company primarily uses internet either from smartphone or laptop. Smartphone and 24 hours internet connectivity enables the company to communicate and interact with clients and other parties 24/7. The firm uses mainly communicate through email, Facebook page, and Facebook messenger. The company exchanges important documents with clients and others parties through email. The Company prefers direct communication to potential and universities over phone. Besides, the firm communicates with universities through email. However, at the beginning communication over email to universities is not effective for the business. Because according to the interviewee it usually takes a long to get response, even often, the company does not get reply/response of email. Therefore, the company always prefers to call them over phone, which is highly effective at the beginning of communication.

Marketing
For the marketing purpose, the company uses Facebook and YouTube. The Company has an official Facebook page, which has 47 reviews and 1792 followers. The company shares very general information about universities in Sweden, admission process, residence permit, job opportunities, etc. in Facebook page. Many visitors from different countries often asks for information regarding study, admission process, job opportunities, scholarship, housing, residence permit etc. The company replies to these questions within a shortest possible time. The Facebook page works as an online platform to interact with future and existing clients. However, the company does not share important information, which is related to business strategies are shared with customers through email. Besides, Facebook, the company maintain intensive and strong personal communication with existing clients. The company provides additional consultancy
services as supplementary for long time in order to build strong customer relationship. As a result, existing client often refer other applicants to this company. This is also the reason for growing fast.

4.3 Startup Company C - Business Consultancy Firm
The startup was established as a partnership business in 2016 in Sweden. The company has three partners and two team members with different roles – Research and development, Marketing and Finance. The firm has no organizational hierarchy, rather than works as a team and maintain friendly and collaborative working environment. The company has collaboration with other organizations - Linnaeus University, Drivhuset, Videum Science Park, Infoplats, and Resetainment. The Company aims at global operation. Although the company has the capability to provide services around the world, however currently the company focuses on Kronoberg region in Sweden. IKEA and Vaxjo Kommun are among the organizations the firm worked for. The firm has internal development process. According to the interviewee, whenever new ideas come up, the company shapes them into new business development. Currently, under Innovation AB there are two new startups- sub companies and manage them separately. Infoplats is primarily focuses on Internet of Things.

4.3.1 Services and Core Activities
The company outsources research development activities and solves business cases of the small and medium enterprises. The company also designs and develops prototype of products and services for other company. The company primarily performs following core activities.

Research and development
Conducting research and development is the main function of the company. The startup perform various types of research and development activities. The company conducts research on product and process development, design prototype, and solve business cases. The company has developed their own research and development process and method, which is called Flower of Innovation. According to the interviewee, the process is highly efficient, effective and unique. The interviewee insists that the process enables them to conduct research and development faster, better and cost effectively. For instance, the interviewee continued, the startup, using the process, developed a prototype for IKEA, which took only four weeks to deliver superior outcome to the client. Whereas, IKEA’s internal research and development unit required two years to develop similar or far less innovative quality prototype. In research development process, all of the partners work together using shared and collaborative technologies – Shared calendar, google doc, Microsoft Project Management software, Google.

Communication and collaboration
In the research and development of the company, efficient and effective internal communication and collaboration is the most important priority of the company. Therefore the company developed a highly efficient, effective, collaborative, and
interactive technology based development methodology. To communicate and interact, team members of the company use various software and tools.

Information Systems
The company extensively uses digital platforms to execute day-to-day business operation. The company gathers information from multiple sources including websites of different organizations, LinkedIn, and other vendors. However, according to the CEO, it takes so much effort and time to collect required information. He further insisted that ‘You cannot find all information and no organization is going to give it for free’. The company has an official website, whereas visitors can find information about the company, services it provides, achievement, collaboration, etc.

Digital platform
The startups extensively use digital platforms to execute day-to-day business operation. The interviewee said, “Without digital technologies, it will be extremely difficult to carry out business operation. You cannot skip doing anything without technologies". The company gives tremendous importance on perfect business strategy, which requires professional and experienced person to run and execute that strategy. The startup uses digital technologies such as 3D printing, social media platform, customized software, website, etc. to implement its strategies. The startup has unique internal process development to develop new product and services. The company has developed the process in more efficiently and better functioning ways. Digital platforms enable the startup to communicate and collaborate more efficiently and effectively.

Marketing
Marketing is another highly important prioritized routine activity of the company. As a startup with limited market, it is extremely important for the company to increase market size and probably find new market.

Finance and Accounting
Maintaining accounts and finance are very crucial for the company. Emphasizing the importance on functions, interviewee said – ”it is very sensitive in startup to maintain cash flow, otherwise you will one realize everything out of hand" The company internally maintains financial and accounting information. The startup has agreement with accounting company. The interviewee has also experience of accounting. Although the company maintains finance and accounts by themselves, however, the interviewee suggest to hire accounting firm then to employing someone. He further said that “it is better to take help from professionals rather than figuring out ourselves”. The employee/team members of the company use laptop, smartphone, tablet, printer, projector, and 3d printing to perform day to day business. The company frequently uses Microsoft office - MS Word, Excel, and PowerPoint. Besides, research and development, Google doc, project management software, and slack are used.

Team members of the company use several communication and collaborative tools. These tools including Google doc, MS Project Management, Shared Calendar, Skype, Facebook Messenger, Viber, and Slack are extremely for team works. For instance, in
using Google Doc. and project management software everyone involved with the project or task know latest update and can contribute simultaneously. Shared Calendar enabled the team members to see the schedule and tasks to be completed.

4.4 Startup Company D - Educational Consultancy Firm
The Company was established as sole proprietorship in Dhaka, capital of Bangladesh. The main clients of these firms are students and applicants in Bangladesh, who want pursue higher education in Europe. Currently, the firm provides educational consultancy services to Bangladesh and in five European countries- Sweden, Finland, Poland, Latvia, and Lithuania. Currently the firm is working as a team with three members with different roles- CEO and Managers. According to the Interviewee, in Bangladesh, usually it is quite difficult for girls compared to boys to go abroad for higher study. Therefore, in future, the company will more focus girls and will provide extended services with significantly lower price. Besides, the firm has aim to promote higher education among girls.

4.4.1 Services and Core Activities
The firm provides educational consultancies, which includes processing admission in higher educational institutes in Europe and residence permit in European countries.

Communication
Communication is the most important function of the company. The firm has an office in Dhaka. Most of the applicants visit the office. The firm has an active Facebook page, which is primarily used for communication and interaction with current and potential clients, promoting and marketing. The company also uses Skype and phone for conversation for internal communication and with clients. However, the company does not have any website. Because, according to the interviewee, compared to Facebook, website is not interactive. However, in future company will develop a website, which will be official representation of the company.

Management Information Systems
In order to expand business, the company collects academic information such as study programmes, admission requirements, scholarship opportunities, etc. of European universities and information about resident permit and job opportunities in European countries. To collect study information, the company visits websites of universities. According to the interviewee, the company usually finds required information from websites of universities. Most of the websites European universities, specifically the company is now working with have rich website, where visitors can easily find necessary information. Besides, the company gathers and store information about existing and potential applicants. Whenever any person shows interest for educational consultancy, the company collects and stores detailed information including academic certificate, resumes, identification document, etc.

Marketing and Finance
The company is currently focusing on applicants from Bangladesh. According to the interviewee, the market size of educational consultancy business is gradually getting bigger as many students want to go abroad for study. Majority of the clients of the company are from Dhaka, the capital city of Bangladesh. Therefore, the company is increasing marketing activities concentrating at Dhaka. The company regularly performs both traditional and digital marketing. The company occasionally posts advertisement in local daily newspapers. Sometimes the company distribute leaflets highlighting services the company offers. The company has an active Facebook page, which has 10,554 followers. The company regularly posts updates information, news, and links about higher education in Europe. The company regularly share YouTube. The interviewee thinks that “YouTube is a good social media platform for visual presentation”. However, currently the company does not have any YouTube account. The interviewee said that in near future, the company will use YouTube for marketing and promoting business. The company internally manages finance and accounts.

**Challenges**

According to the interviewee, the biggest challenge for the consultancy firm is social media, specifically Facebook and YouTube. Applicants can find relevant information from YouTube and Facebook. As result, these applicants can process their admission by themselves. The interviewee further argued that “specifically different public Facebook pages and channels tremendously help applicants in admission. As a result, these firms losing potential applicants.” The interviewee insisted that “in future more Facebook groups will be created and more video will be posted in YouTube, which will create challenges for the firm to get clients, since everyone want to save money”.

### 4.5 Startup Company E- Green Energy Consultancy Firm

The Company was established as sole proprietorship at Linkoping, Sweden in 2014. The Company was launched with a vision to solve energy crisis with sustainable, environment friendly green and solar technology. The company is owned and operated by the interviewee himself. Although aiming at global market, currently the startup is primarily focusing in Sweden (Linkoping) and Bangladesh

#### 4.5.1 Core Activities and services

The core services and activities of this firm are providing consulting services, which includes designing, and developing renewable and environmental technology. Currently, the company focuses on providing solar energy solutions to individual, small and medium companies.

**Information Systems**

The startup company is extensively research based. To provide better renewable and sustainable energy solutions, the interviewee, as the CEO of the company, conducts research as a routine task. The interviewee said - “I do research. Every day I spend substantial amount of time of studying and research. I read online journals, papers, article in the library at Linkoping University.” The interviewee collects information
from journals, publications, LinkedIn, websites of different companies, Facebook pages, etc.

Communication
The company uses regular communication technologies such as smartphone, laptops, internet and social media communication and marketing. The interviewee uses Twitter and LinkedIn to build network with professional. The interviewee follows Twitter and LinkedIn accounts of professionals and business organizations, who are involved with green and solar technologies. Through following twitter and LinkedIn, the interviewee often gets important information, and updated news. The company has a website. Clients and visitors can find detail information about services, portfolio, achievement, and contact details.

Marketing, Accounting, and Finance
According to the interviewee, as a startup, the company has very limited marketing activities. The company has very specific market. The interviewee further said ‘I know the people, whom I should look for. I have developed business networks. To find potential customers and create network, social media such as LinkedIn, Facebook sometimes help me”. The interviewee uses LinkedIn profile. The company does not have any Facebook page. However, the interviewee follows some Facebook pages to get updated news solar energy issues. The company has an website, where clients and visitors can find detail information about services, portfolio, achievement, and contact details of the company. The company receives accounting services from an accounting firm in Sweden.
5. EMPIRICAL FINDINGS

Chapter five describes empirical findings of the case companies. Empirical findings were identified and described following the research question, key concepts and the methodology presented in earlier chapter. According literature review as well as considering significance key findings have been categorized and described in the following paragraph.

Establishing a startup company is always exciting but running a startup successfully for long might be extremely difficult. Without proper plan, clear visions, right long term strategies, proper value proposition and value creation strategies, it will be extremely difficult to become success in highly competitive global business ecosystem. The study identified that establishing an Internet based consultancy firms is much easier than to establish a product oriented company. The case companies are provides different consultancy services. Out of the five companies, three of them (A,B, and D) provide educational consultancy services, whereas the consultancy firm C provides several services including management/business consultancy, product design, and conduct research for other companies. Finally, the consultancy firm E provides renewable energy consultancy services. The chapter begins describing the stories of establishing the startups. The following paragraphs describe the findings of the research.

5.1 Establishing the startups

There is a unique story of establishing each of the firms. The CEO of startup A has passion for business as well as past experiences in educational consultancy motivated him to establish the firm. Besides, academic background in business and entrepreneurship, and innovative and creative mind further pursued the interviewee to pursue to establish own business. The interviewee said -

“Since I am studying entrepreneurship, I want the academic and establish my own business. In addition, if I work for other company, I might not be able to apply ideas. Besides, I will be in better position and can create job for others. Furthermore, small companies are more flexible to change in order to meet challenges”

However for the CEO of Startup B has completely and quite interesting story to launch the startup. The idea of launching the company was triggered by a specific information. The interviewee stated that - “I never think of establishing an educational consultancy firm”. However, a specific information and suggestion of an officer of a Swedish university motivated the interviewee to establish the firm.” The interviewee further stated that the idea of launching this was not new and “the opportunities were created before and due to lack of information, I could not start this business before”. According to the interviewee, the process of establishing the business started “afterwards getting the information from the officer”.

The startup C is a group of team of innovative mind. In fact, the CEO of the company is studying Business Innovation and Engineering at Linnaeus University and he has long experience in business. The interviewee/CEO of the company successfully
established and later on sold five startup companies before. However, this management consultancy startup was established as a partnership business in 2016 in Sweden. The company has three partners and two team members with different roles – Research and Development, Marketing and Finance.

The CEO of Startup D emphasis on passion and freedom in establishing business. Establishing and running own business provide opportunities and freedom to apply new ideas and to think out of box. She said’

“I always wanted to establish business. It has more freedom. It gives more space to do something.”

On the other hand, the CEO/interviewee of renewable energy consultancy firms E has deep passion green and renewable technology. He want to solve energy related problems with green and sustainable solutions. With these motivation and desire to solve energy related problems, he launched a consultancy firm in Sweden. The interviewee said -

“My academic background, interest and passion is all about green technology. I have expertise in renewable energy. I want to solve energy related problems and I am competent and best in this particular area. These are main reason to establish this firm. Energy crisis is the main motivating factor for me.”

However, the interview added that “Digital technologies did not drive me in this field. Even digital technologies require energy!”

5.2 Digital technologies Used (Hardware)
During the investigation and later coding, it has been that all of these firms use widely available and the most common digital devices such as laptop and smartphones, people everyday use. The interviewee of startups A, B and D use almost similar devices - a laptop, a smartphone, and headphones to run their business. However, all of these startups provide educational consultancy services to clients from different countries. As these all of the laptops and smartphone have inbuilt webcam, for video conferencing with clients, employees and agents they don’t need separate web camera. The Startup C uses some additional devices - 3D printer, projector, and regular printer. 3D printer is primarily used for designing prototype for clients. According to the interviewee, 3D printer is extremely useful, flexible and cost effective to design and develop prototype of any products. The projector is used for presentation and business meeting with clients, employees, partners and other parties.

5.3 Digital technologies Used (Software)
The case companies mainly use latest version of Window and IOS operating systems in their computers. Again all of the these startups use common software - Microsoft office (mainly word, excel and PowerPoint) for every day operation. The firm C and E use some additional software - Adobe Photoshop, Adobe Illustrator, Computer Aided Design (CAD), and some online designing tools to design prototype. According to participant of both companies, these applications are very useful, quite easy and flexible
to use in designing. The company outsource accounting service from a accounting firm. The company has business contract/collaboration with the accounting firm, from which the startup regularly seeks for accounting and finance related service. Startup C uses online accounting software Fortnox and VISMA, which are very flexible and effective to maintain finance and accounting. The interviewee said -

“We use Fort NOx and VISMA, online accounting software. They are very useful. When you use Fortnox, you need not need to know accounting principles to use software to maintain accounts. Whenever you have Kvitto, just take a photo and send it. They will take of the rest. Our accounting company has also access to this software platform. As a result, we input the data and they take it out and manage it”

5.4 Digital technologies Used (Internet)

Internet is probably the most useful innovative technology that has tremendously evolved over time and is used by not only these startups but also the whole world. Without Internet, none of these of these firms can operate and survive. All of the startups particularly, startup A, B, and D extensively use internet to collect information, communicate and collaborate with clients and partners. The interviewee of the startup B said

“It is not possible to continue the business without digital technologies, specifically Internet. My business completely depends on digital technologies specifically on internet. For instance if there is no internet for a month, works will be stopped for whole month”.

The interviewee further added that as a result success and survivability of that company entirely depends availability of information and communication technology. Besides, connecting to internet is the only way to access and uses all of the web based applications, and resources e.g. information, cloud resources, application, social networks, etc.

5.5 Availability and access to information

Latest generation internet enable access to vast amount of information to people. Besides, more and more organizations, government agencies, institutions, community, and individuals are sharing information through websites, social networks and other media. Hence, today business, customers/consumers or any other organization can access and collect more information. The startups A, B, and D extensively uses Internet and social media to collect data about clients and universities. These firms collect documents such as academic certificate as pdf file or other kind of soft copy through. According to the interviewees of these Startups, through visiting websites of universities, website of residence permit issues and employment and other opportunities, the companies usually get all relevant and required information. Besides, rich social media particularly Facebook, enable these company to collect information from clients, universities, other agencies with least amount of time and cost. The interviewee of startup D said that “it usually takes 3-4 days to collect relevant information about higher education of any country”.

48(72)
The interviewee of startup B stated that internet assist the firm in many ways to collect data about customers, competitors. The interview further stated that “collecting data using Internet, is very efficient and convenient, which significantly reduces time and effort. The interviewee of Startup E stated that - “I do research, studies in the library, online journal, paper, article”. The company regularly visits website and LinkedIn, collect and read online journals to find latest development in renewable energy and technologies, updated news companies and client. The interviews follows many companies in LinkedIn to get updated information about renewable energy industry.

5.6 Digital technologies for efficient communication and collaboration
Digital technologies particularly highly capable mobile devices available to vast number of people, rapidly increasing broadband internet connectivity, and rich social media enable billions of people communicate, interact, and share information.

Alongside with traditional communication media such direct phone call, the startup A extensively uses different social media platform such as Facebook, Skype, WhatsApp, imo, etc. According to the interviewee, almost all of the clients of the company have Facebook account. As a result, Facebook has become very convenient and easiest way to connect and communicate with existing and potential clients for the company. Besides, according to interviewee, Facebook ecosystems is more effective for real time communication and marketing than other media. The interviewee further said:

“I am extremely rely on Facebook for communication with clients. I follow Facebook pages of many universities and students groups”.

Facebook allows the company for both voice and text communication. The company uses Facebook messenger to communicate with clients. The company uses Skype for direct voice calling to clients living different countries. According to the interviewee Skype is significantly cost efficient than regular telecommunication services. However, to use Skype, sender needs internet connection. Both Facebook messenger and Skype provide video calling service, which is effective to communication with clients living in other countries. The company primarily uses social media including Skype, Imo, Viber, and WhatsApp to communicate with applicant and associates. Besides, for formal communication with universities biggest clients for the company, the firm prefers email and direct phone call. The interviewee said - “I usually communicate with clients and partners through email and voice calling. Sometimes I visit universities to attend meetings in Sweden”. This also true of Startups B and D. Web based communication is extremely useful, effective and flexible. The interviewee of Startup B mentioned an experience-

“In recent experience, I had to submit tax document to tax office within two weeks. However, to prepare and process the document, I communicated to my account, who is living in another city. Unfortunately, at time the accountant was outside of Sweden. However, I communicated with him over email and got the job done, even though account he was in vacation in abroad. I am certain it would be extremely difficult to manage this situation with regular post.”
5.7 Digital technologies for efficient and effective marketing

Digital technologies probably the most efficient and effective tools for business promotion and marketing. Organizations irrespective of whether profit oriented or not extensively use digital technologies such as developing own website, online marketing through google, and social networks e.g. creating own Facebook page and promotion, creating videos about company, products and services and sharing in YouTube, LinkedIn, etc., digital billboard, digital banner advertisement etc. The startups A, C, and E have own websites.

The interviewee of startup C stated that the company extensively uses digital media platform for sharing information, promoting and marketing. The company has an official website, where visitors can easily find information about the company. The interviewee give high importance on utilities of website of the company. He said -

“It is almost complete document of our thought, skills, abilities, capabilities and portfolio. Instead of sitting with someone and explaining everything for hours, we do a 10-15 minute pitch presentation and refer them to visit website for detail.”

The interviewee further stated that through google analytics, the company is continuously monitoring the website to observe whether visitors actually reading the website. The company also frequency of visitors. According to the interviewee, if someone spends couple of seconds on each page it seems apparent that he/she is just clicking and browsing and if user spends 2-3 minutes, they are actually sitting and reading, he said. However, the interviewee limits their expectation of using website - said – “As a startup, you can expect that you will get thousands of clicks each da”. The interviewee is highly satisfied with using Google and Google Analytics. He smiled and said “Google makes life easier”. The interviewee emphasizes on marketing and said

“Our Business is very new, alive and rely on market size. It takes a while to registrar organization, open bank account, develop business networks and channel. We got help university external relation and satisfied customers, who help us to find new customers.”

At the time of interview, the company did not use social media platform for marketing. However, the company had an extensive plan to use social media- Facebook, LinkedIn, twitter, etc. Later on the company created Facebook page and LinkedIn account for the company. The Facebook page of the company has 418 followers (25/01/18) and the company regularly promotes updated information about their business and services in the page. According to the interviewee, the company is serious and cautious about using social media such as running a Facebook page for the company. The company was examining how to use social media. The interviewee said:

“There are serious issues in using social media for business. People get bored continuously seeing not important post. Then they will ignore it. For example, when follow Facebook page of BMW or IKEA, you will be curious to know what is going on. If you post everything, people will be get bored and then start to ignore, block them
or unfollow. That is why we are looking to use social media wisely and therefore it takes time.”

According to the interviewee, LinkedIn- is most essential for their business. Using LinkedIn, the company extend corporate business networks. The company also has a plan to open Twitter account. According to the Interviewee- “Twitter is more serious and professional social media platform. Twitter is highly effective for expanding business network and contact with other companies and government agencies.” The Interviewee argued that twitter is more active compared to Facebook or Instagram. On the other hand, according to the Interviewee, Facebook is good for maintaining friendly and social environment. The company already has links of Facebook, Twitter, LinkedIn, and Google Plus in their website.

The Startups A, B, C, and D also have their company Facebook pages, in which the companies have 834, 51042, 417, 10521, and 38 followers respectively (25.01.18). The Facebook pages of startup A and B have 39 and 138 five star reviews respectively (25.01.18). According to the interviewees of these firms, positive reviews create positive impacts on potential clients.

5.8 Digital technologies for efficient and effective business processes

Over the year, information and communication technologies have been adopted and used to facilitate business processes, functionalities, efficient effective delivery of products and services, Digital technologies particularly designing and collaborative tools and application are used for innovative products and service development. The startup C has developed a unique process development technique to develop innovative products. The interviewee mentioned case where they did excellent job. The interviewee explained about their unique process and said -

”We have organizational or process, products and service development. We have internal process development for ourselves. Whatever product or service we develop has to go under process. Process begins somewhere and ends up delivering outcomes. We develop the process in more efficient and better functioning ways. Digital platform provide us effective and efficient ways to communicate and collaborate in these processes.”

Therefore, according to the interviewee, the unique development process enhances the capability and provides competitive advantages. The process also significantly reduces cost. The interviewee stated -

“For instance it will obviously reduce cost if you develop a product within 4 weeks or 6 months rather than two years”. To run the process, the company extremely depends on digital technologies.

All of these startups uses different applications such Microsoft office (Word and Excel) to prepare and store data, email to exchange important messages, documents e.g. text, PDF files, images, and information. According to interviewee of startup A, B, C and D social networks such as Facebook messenger, Skype, WhatsApp, imo, are very useful
interactive communication with clients. These applications enable the firms to provide instant feedback to clients.

5.9 Digital technologies for innovation and superior products/services

Digital technologies often enable organization to develop innovative and superior products and services, which often lead to competitive advantages. The startup firm C uses digital technologies particularly communication and collaborative technologies to design and develop innovative products. The interviewee of the Startup C said-

“What makes us different- unique method of development process, which is very efficient? For instance, we delivered product development to IKEA. We delivered the product within 4 weeks with noticeably superior product compared IKEA’s own development. We develop the process in more efficient and better functioning ways. Digital platform provide us effective and efficient ways to communicate and collaborate in these processes”

The CEO of startup E uses various software and applications such as Adobe Photoshop, Illustrators, etc design prototype. The Startup uses 3D printer for designing and developing prototype. For delivering real time, better and interactive services, mobile devices and social media are excellent tools. The participants of all of the educational consultancy firms A, B, and D agreed, this Internet enabled mobile devices (Smartphone and Laptop) and social networks make their work much easier and flexible. The interviewee of Startup B argued that information and communication technologies enable him to provide better services to clients. He said -

“For instance, in order to provide better services, I collect and latest information of my competitors in Bangladesh. Now it possible for me to collect required information about my competitors situated in Bangladesh through using Facebook, website, etc. from in Sweden within an hour, which is not possible before. I might not be able collect that much of information even I personally visit Bangladesh than collecting though using Internet and social media. Nowadays it is easy justify information, for instance I can chat with universities for immediate feedback of any query. This also contributes create trust in my business.”

Besides, digital technologies particularly internet and access to information enable this firm to provide more service to clients. The interview of Startup B stated

“Existing and traditional consultancies only process admission, I want to do something more. Apart from admission process, I am now more focusing on external activities. There are so many opportunities exist for instance different countries organize different skill development activities such young leader work camping, conference, workshops organized in Stockholm, Latvia, Malaysia. I want to offer the opportunity to my clients to participate to these events to enrich their skills. As a result, they will be more qualified and have better opportunity to get scholarship and admission to universities. These external activities will certainly attract more clients and contribute to growth of the business.”
5.10 Digital technology for customer’s satisfaction and value co-creation
Advanced communication and collaborative technologies and social networking platforms e.g. Facebook, Skype, emails etc. enable organization to keep and maintain continuous interaction with customers and clients. During the observation and analyzing social media activities of the firms, it has found that Startup A and B always interact with both existing and potential clients. More interesting information is that many of their past customers are now promoting these consultancy firms though their personal Facebook account and with friends. Even some of the past clients are now working these as agents off course with economic benefits.

5.11 Cost reduction, higher growth and profitability
Digital technologies contribute in many ways to reduce cost in business processes, product and service development, delivery of services, customer retentions, marketing, etc. Firstly, launching consultancy firms is less capital intensive. The interviewee of startups A, B, D, and E said, they did not require capital except using own computers, smartphone and some money (900 sek) to register their businesses in Sweden. Even in continuing their firm, they do not require additional investment and expense. However, recently, startup A has developed it’s company website by third day company. Apart, from the expenses for traveling to some universities in Sweden and traveling to Bangladesh for business meeting and communication cost which is also very low, using smartphone, literally the company has to little expenses to run the business. This is also true to B and D. However, Startups C, D, and E has to pay rent for office space. Start D has a permanent employee working in its office. Besides digital marketing, Startup E promote business in traditional media e.g. advertising in printed newspapers, which is quite expensive.

5.12 Virtual business/Virtual market
Internet, web based technologies and social media have brought enormous opportunities for organizations, particularly consultancy firms. All of the interviewee said that although they are currently focusing specific market but their market could be expanded all over the world. In fact startup A and B provide educational consultancy services to clients from several countries, including Bangladesh, India, Pakistan, Iran, Czech Republic, UK, Sweden, and Uganda. The interviewee informed that due to intensive marketing in Facebook and promotional activities by existing and past clients their market is rapidly expanding.
6. DISCUSSION AND ANALYSIS

This chapter presents the analysis of the findings. The findings have been interpreted with literature introduced in earlier chapters. Throughout the chapter, research questions have been answered and implications and justification of the study have been made.

The chapter begins with answering the research questions: How digital technologies create values that enhance the capabilities of Internet-based startup consultancy firms? The findings show that in many ways (including business creation, products and service development and delivery, process improvement, information systems, interactive communication and coordination market capture, cost reduction etc.) digital technologies create values which are consistent with Amit and Zott (2010), Lubian and Esteves (2017) and many other authors mentioned in the literature review. The study identified that digital technologies enhance the capability of Internet startups through facilitating business processes and activities. The following paragraphs highlight and discuss key value-creation sources and processes found in the previous chapter.

6.1 Values created by the startups

This paragraph highlights and recalls the values provided by the case startups to their customers. The startup consultancy firms provide different consultancy services including educational, management and energy consultancy to their clients. The startup A, B and D provide educational consultancy services which include assisting prospective applicants/clients to get admission to, scholarship for and residence permit in Sweden and other several European countries. The process of value creation begins when clients are seeking consultancy services and the process ends when clients get the admission, scholarship and/or residence permit. Moreover, startups A and B provide additional services such as managing funds, finding accommodation and receiving clients from a certain location. The startup C provides several services including management/business consultancy (main service), designing and developing products and conducting business research on behalf of the clients. There the value-creation starts when a customer communicates and seeks services from the company. The value-creation process ends when a customer receives a service. Finally, startup E provides energy consultancy services (green and solar technology) to clients from Bangladesh and Sweden. All of the startups take a consultation fee from their clients/customers. These consultancy firms provide services to facilitate and enable clients to perform specific task and achieve their objectives. Therefore, utilities and values provided by the startups can be measured and analyzed by on how successfully clients utilize consultancy services to achieve their goals. The interviewees of the startups A, B, and C have informed the researcher that their clients are highly satisfied with their services. Besides, all of the interviewees confirmed that the majority of their past clients were benefited.
6.2 Increasing the use of digital technologies
During the last couple of decades, tremendous advancements of digital technologies have been leading towards a digital society where convergence has been happening among professional, personal and social life (Bradly, 2010). The availability of highly capable mobile digital devices with variety of applications has been contributing to increase the use of digital devices in everyday life. Over the years, the improvement of cloud-based web technologies and different social media have further lead to dramatic expanding the usages of digital technologies in personal and business life. Digital technologies such as the Internet and mobile devices have made daily life much easier and comfortable than it used to be before. Organizations, both commercial and noncommercial, use advanced technologies to run organizations. Entrepreneurs and business organizations have been using digital platforms to create new business models, new products and services. For the last couple of decades, hundreds and thousands of startup companies have been established and many of these startups have been adopting digital technologies to develop products and services. Today, due to intense competition and market structure, organizations are forced to adapt digital technologies. Startup firms are not out of this scenario. The startup consultancy firms have been successfully using digital platforms to develop and deliver better services, to expand market, communicate and collaborate, and to achieve customer satisfaction, which lead to competitive advantages and success.

6.3 Expanding new sources of value creation
Digital technologies assist organizations to create new sources of value-creation in addition to the sources introduced by (Amit and Zott, 2001, 2010). Eventually, the Internet has become the biggest source of information which enables individuals and organizations to collect required information about potential markets, customers, competitors, partners or products and services. Today information is considered as the key resource of organization. Information may trigger to pop up new ideas that might lead to new business model, products and services. For instance, the startup B launched its business after having some specific information about business ideas and the process of launching a business in Sweden:

“I was never thinking of establishing an educational consultancy firm. When I came to Sweden, my friends often requested me to assess their documents for admission in Swedish universities. Assessing these documents and the suggestion from Stefan (communication officer at a Swedish University) motivated me to start this consultancy firm. In my opinion, in business perspective, opportunities were created before. However, due to lack of information I could not start this business before.”

The interviewee further said that, once he was browsing Facebook from his laptop, suddenly a news about a scholarship opportunity from universities in the Czech Republic appeared in his news feed. He went through the information and did further research about the possibility of expanding its business to that country. After doing research and communication with several universities, the firm made official contract to university from Czech Republic and started offering new opportunities for clients to
study in the Czech Republic. As globally oriented consultancy firms, all of the case startups have been extensively using digital platforms to operate their businesses. The firms collect necessary information from different authentic websites with minimum effort and time. A rich website and social media have enabled the companies to collect and disseminate information more efficiently and effectively than before. Since the startups are small in size and in number of employees with limited functionalities, the startups do not have separate business processes like big firms. However, through using digital technologies, these companies maintain information systems and accounting and finance, marketing and communication, customer relationship, research and development as their main business processes and functionalities. Besides social networks, company C and E have websites, which are also used as communication and marketing platform. The websites provide information about the company, products and services, team members, achievement etc. According to the interviewees of startups D and E, the websites are extremely useful for the companies. The interviewee from startup C argued that-

“Instead of sitting with someone and explaining everything for hours, we do a 10-15 minute pitch presentation and refer them to visit website for detail. We continuously monitor (Business performance) our website to observe whether they actually read the website through google analytics.”

The interviewee from startup C stated that Google Analytics enables them to observe the number of visitors and time spent on their website. In the following paragraphs, new sources of value creation will be further analyzed.

6.4 Dominance of internet, social media and web technology

Over the last few years social networks Facebook, Skype, WhatsApp, etc. have becoming key communication tools. As billions of people are connected with different social networks, social networks platforms have becoming extremely useful source to interact with future customers. Many organizations have been utilizing this opportunity to make direct interaction with client. The findings clearing indicates that the case startups have been implementing these advantages to connect and communicate with future collect. The startup B has accomplished major progress in this regard. During the first interview with participant of startup B, the firm had around 2700 likes in their Facebook pages. The company has conducted some business promotional activities in the Facebook, which cost around 7000 SEK. At 25 January 2018, the Facebook page has 67560 likes and during recent conversation with the CEO of the firm, the researcher was informed due to these promotional activities in Facebook, the firms are getting many clients seeking consultancy service and he was extremely happy and very hopeful with the progress of the company. Other companies are planning to implement similar strategies.

Through using internet, the companies can deliver products and services to clients within a very shortest period of time and minimum costs. Digital technologies provide the companies borderless market with unprecedented connectivity and availability of massive amount of data and information (Dutta and Segev, 1999; Evans and Wurster,
1999; cited in Amit and Zott, 2001). Besides, internet banking enables these firms to conduct financial transactions around the world. Online delivery of services enable these firms to deliver services in real time and marginal or zero cost (Shapiro and Varian, 1999; cited in Amit and Zott, 2001). Thus, these capabilities enable these firms to enjoy immense competitive advantages in market expansion, daily operations and communications, service deliveries. These collective competencies significantly increase efficiency, effectiveness, and survivability of the startups. All of the interviewees have recognized the importance of digital technologies. The interviewee of startup C stated:

“We extensible use digital platforms to execute day-to-day business operation. Without these technologies, it will be extremely difficult to carry out business operation. You cannot skip doing anything without technologies”

The participant from Startup A said that: “My business completely depends on digital technologies specifically on internet. For instance if there is no internet for a month, works will be stopped for whole month”. Recognizing the importance digital technologies in value creation process, these companies are formulating their digital business strategies.

6.5 New business model, better products and services

Mobile devices, internet, access to vast amount of information, and organization, social networks and web based technologies enable these companies to provide fast, superior, and real time delivery of services. Besides key services, digital technologies enable the consultancy firms to offer new and additional services to clients. For instance, in addition to educational consultancy, the Startup B cooperate applicants to participate training and skill development event organized in different countries. Through internet search, the company collects information about various skill development events. On the other hand, in addition to management and business consultancy, the startup D designs products for their clients. The company uses 3D printing, simulation and other software to design products. Beside educational consultancy services, the Startup A assist clients to manage fund and accommodation. These additional services do not increase profit at the first sight. However, the satisfied clients later work as agent and convince their friends, classmate and other people to take service from the company. As result, these additional services and added values ultimately increase number of clients and profit.

The Startup C has developed a innovative and unique research and development method, called Flower of Innovation. According to the interviewee, the method is extremely efficient and effective to complete any research and development project. The interviewee argued this digital technology enabled platform is extremely useful to develop superior products and services at minimum cost and shorter time than traditional companies do. However, the process requires intensive interactive communication and collaboration among team members. Microsoft project management software, collaborative tools such google doc. Shared Calendar, Slack,
and social media networks enable the team members efficiently and effectively perform their project works.

6.6 Increasing communication, collaboration and partnership

Efficient and effective communication and collaboration with strategic customers, partners, employees, and key organizations are major source value creation for service oriented consultancy business. The study identified that through using internet enabled mobile devices, social networks and other web based technologies, the case companies maintain interactive and efficient and effective communication with their customers, partners, agents, and with strategically important organizations. As consultancy firms, out of five, four of the case company (A, B, D and D) provide services to clients several countries. The main function of this company is to communicate and collaborate with clients. Alongside with traditional communication media such direct phone call, the company extensively uses different social media platform such as Facebook, Skype, WhatsApp, imo, etc. According to the interviewee of Startup A and B, almost all of the clients of the company have Facebook account. As a result, Facebook has become very convenient and easiest way to connect and communicate with existing and potential clients for the company. Besides, according to interviewees, Facebook ecosystems is more effective for real time communication and marketing than other media. The interviewee of Startup said: “I am extremely rely on Facebook for communication with clients. I follow Facebook pages of many universities and students groups”. Facebook allows these companies for both voice and text communication. The company uses Facebook messenger to communicate with clients. Besides, marketing the company regularly shares information in the Facebook page of the company to provide updated information, news university admission, scholarships, jobs, and residence permits to existing and potential clients. There are has three admins of the startups A’s official Facebook page, in where, at the time each of the admin operates the page, communicate, and respond to clients. The company uses other social media applications- Skype, Imo, Viber, and WhatsApp. Thus, digital technologies significantly remove geographical barrier. The firms as routine works communicate with customers living in another continent.

Digital technology platforms, particularly internet, web based applications, social networks, communication and collaborative technologies, access to information, and globalization have significantly contributed to closer collaboration between small organization and large organizations. The study identified that except startup D, all of the firms have business contact and collaboration with several large and well-established organizations. For instance Startup A strategic business contact with seven Swedish universities. Even startup B has collaboration with universities from three European countries. On the other, hand Start C. has collaboration with both medium and large organizations such Linnaeus University, Drivhuset, ICA Supermarket, small companies such as Cafe De Lux and CLUB.
6.7 Limited capital requirement and cost minimization
Digital technologies significantly reduce cost of business operations, particularly in communication and collaboration, access to information, promotion and marketing, service delivery, etc. For instance, communicating through social networks such as Facebook messenger or Skype, email, etc. Apart from internet connectivity cost, the communication cost is zero. Beside many of these applications, provide text, audio and video call services without any additional cost. These cost minimization in operating business processes increases profitability. Digital technologies, particularly Internet, communication and collaborative web technologies, cheaper mobile devices, widespread broadband internet connectivity, etc. provide opportunities for entrepreneur to launch startup with a little capital. For instance, the startups A and B, with their existing resources which include a smart phone and a laptop, started their business. These companies promotes business through personal contact, social media e.g. Facebook, made contract with universities using email and personal visits. Although, except the Startup B, all of the firms have office, office is not mandatory to run business. During the observation of the startups A and B, it was noticed that interviewee mainly work inside their living room using a laptop and a smart with internet connectivity. The interviewee of the startups D and E also work from home. Low capital intensive internet based business model have made these companies more flexible and competitive.

6.8 Expanding borderless and virtual market
As a result of globalization, efficient communication and collaboration and access to huge virtual market (thank social media), newly born startups focus more on globally. Different social media e.g. Facebook, LinkedIn, Twitter, Instagram, Skype, etc. have enabled companies to access and communicate billions of people. Internet based firms have been taking this advantage. The study found that although these started business focusing business on very specific market, but their ultimate goals are to expand business globally. For instance, startups A, B and D started business in two countries, but currently these firms providing services to more than five countries across Asia, Africa and Europe. Internet and Social networks have made it easier to promote and expand market globally.

6.9 Increasing capability/competitiveness/agility of startup firms
Digital platforms have dramatically increased capabilities of organization to operate day-to-day business, develop and deliver products and services, provide personalized services to individual customers, etc. The study found that except the firm C, all other firms have 1-3 employees including the interviewees/CEOs. Although these companies are growing rapidly, using the digital platforms these companies are efficiently and effectively running businesses and delivering consultancy services.

6.1 Challenges
The study found that digital technologies facilitate business and create values in many ways. However, digital technologies also create new challenges. Particularly for the educational consultancy firms. There are many Facebook pages, YouTube channels, blogs and websites available, in which applicants/clients can get all required
information with paying. According to the interviewee of the Startup D, the biggest challenge for the consultancy firms is social media. The interviewee stated that -

“Through using Facebook and YouTube individual student can find relevant information and can process their admission by themselves. Specifically different public Facebook pages and YouTube tremendously help applicants in admission. As a result, these firms losing potential applicants”

Besides, successfully running social media platform is also very challenging. Without proper strategic plan to operate social media, it is very difficult to attract potential clients as well as to retain existing clients. The interviewee of startup C argued that-

“There are serious issues in using social media for business. People get bored continuously seeing not important post. Then they will ignore it. For example, when follow Facebook page of BMW or IKEA, you will be curious to know what is going on. If you post everything, people will be get bored and then start to ignore, block them or unfollow. That is why we are looking to use social media wisely and therefore it takes time.”

Another problem is convergence of personal, social and professional life. The interviewee of Startup A particularly have been facing this problem since launching the firms. People often contact with him in through his personal Facebook account almost of the time. During the observation, it was noticed that even after working hour particularly in the evening and night, many clients communicate with the interviewee. This problem is very annoying and highly disturbance to maintain personal and social life.

Although, digital technologies have made it extremely efficient communication for individual and organization. However, highly efficient communication may not be highly effective communication. The communication has to be interactive and responsive from both side. The study found that when the startups communicate with established large organization, it usually takes significant amount of time and effort to make a successful communication. This process is often very stressful and frustrating. The interviewees of the startups A and B stated that the most challenging task is to communicate with universities. It usually takes long time, sometimes around three months to find the right person to communicate for business dealing. The interviewee of the Startup A said -

“At the beginning, if I call a communication officer, most of the cases, the officer reply that she/he is not the right for this issue. Then, I am referred to contact with another person. This process continues couple of weeks, sometime couple of month to get the right person”.

Another problem is time difference. The companies is operating from Sweden and most of the clients (applicants) and associate working for the company are from other countries. For instances majority of the clients of the firms A, B, D, and E are from Bangladesh. As a result, due to different time zone, there is 5-hour time difference
between Bangladesh and Sweden. Besides, in Bangladesh, weekend starts from Friday to Saturday, whereas in Sweden weekend is Saturday to Sunday. As result, due to different time zone and weekend, this company often faces problem with communication with clients and banking transaction. Although digital platforms provide enormous potential to startups companies, digital platforms may create new challenges too. Due to the advantages of digital technologies described in earlier chapters, it is easier for new entrants to enter into this business, which will result in increasing competition.
7. CONCLUSION AND FUTURE WORK

The chapter seven concludes the thesis with contribution of theoretical and practical applications, limitations and the suggestions for future research.

In the last couple of decades, rapidly evolving digital technologies have been attracting entrepreneurs and innovative minds resulting in very successful companies such as Amazon, Google and Airbnb. However, these companies are exceptional as most of the startups fail at the very beginning of their journey. Even many highly successful companies such as Kodak and Nokia failed due to a lack of innovation, visionary leadership and long-term strategies (Anthony, 2016; Doz, 2017). This study addressed this issue through investigating five consultancy startups using an interpretive research paradigm. The study found that digital technologies such as computers, mobile devices and collaborative technologies facilitate the value-creation process and enhance capabilities of startups. Furthermore, the findings are consistent with the prior conducted literature review. The study identified that mobile devices, the Internet and social media are the key technologies that facilitate communication, collaboration, marketing and service delivery for consultancy startups. The study further revealed that since their launch the investigated firms have been performing very well as most of them significantly expanded their business operations. The further identified that although digital technologies play a very important role for the initial success of startup companies, however, the main success factors are innovative business model, unique and creative ideas, demand-driven strategies, visionary thinking, long term plan and hardwork. The interviewee of the consultancy firm C identified and emphasized these factors. He said “When you want to start a startup, you need to sit and do homework. You need a fine and detail understanding what you are going to do and whom you are dealing with and what will be target market.”

In order to utilize the immense capabilities and utilities of digital technologies, startup firm should formulate flexible long term plan and digital business strategies, develop core competencies and value creation. Advanced digital technologies need to be adopted to materialized business strategies to achieve long term goals.

7.1 Limitations

The study was conducted on five Sweden based internet startup consultancy firms. The main limitation of the study is study only focuses on limited number of service oriented startups, which require high engagement of human resource. Therefore, the outcome of the study might be different, if the case companies are product oriented and located different geographical area. During empirical data collection, the authors mainly collected data through semi-structured interviews. Due to privacy issues the companies did not provide financial statements, which could be very useful analyze financial performance. Besides as the startups are in early stage, it is difficult to predict whether these companies will be succeeded in the long run.
7.2 Contribution to the theory
The findings of the study strengthen existing literature. Moreover, the study reveals that without digital technologies particularly Internet, these companies might not exist. Advanced technologies significantly increase efficiency, effectiveness, and competences while dramatically reducing cost. These technologies enable startup firms to operate globally with limited resources and efforts. Digital technologies enable these firms to become more flexible and adaptive to face challenges and to offer innovative services. Thus these startups become more competent. Social media significantly contribute to expand market, while reducing communication, marketing and operating costs. As a result, digital technologies increase profit margins of the startups and significantly increase chance of success in the long run.

7.3 Contribution to practical application
The finding of the study will be beneficial to existing and future startup companies. The study shows how digital technologies could be applied to operate startup businesses more efficiently and effectively. The finding shows that with a very limited resource a startup firm can be established. Therefore, entrepreneurs who have plan to start new business but have limited capital and resources can look into internet based consultancy firms. Besides, the study reveals some existing and potential challenges of internet based consultancy firms. Both existing and future startups firm can look into these challenges and prepare to meet them. In addition, the study founds some insight the interviewees/entrepreneurs, who shared critical insight about how to successfully establish and run a startup firms.

7.4 Future research
The study reveals many advantages of digital technologies on Internet startups. Traditional business and startups can also be benefited of using digital technologies. To become more competitive in the highly competitive business world, where customers demand increases and changes faster and more frequently, traditional businesses might need to change business strategies and even might require to transform business. In future, researchers could examine how digital technologies can be applied to transform traditional businesses. The study reveals that social media platforms have become a very important tools for starting and running new both existing and new business. Social media significantly reduces operating costs of the startups. On the other hand, social media also bring new challenges e.g. more competition. Therefore, in future study can conducted to investigate the impact of social media on startups firms.
References


Doz, Y. (2017). The Strategic Decisions That Caused Nokia’s Failure, INSEAD Knowledge,
[Available at: https://knowledge.insead.edu(strategy/the-strategic-decisions-that-caused-nokias-failure-7766]


[Available at: http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6017604&filter%3DND%28p_IS_Number%3A6027504%29&pageNumber=2]


Lee, S. Y. (2016). Creative workplace characteristics and innovative start-up companies, Facilities, (34) 7/8, pp.414 - 432


Mao, E. and Zhang, J. (2015). What Drives Consumers to Click on Social Media Ads? The Roles of Content, Media, and Individual Factors, 48th Hawaii International Conference on System Sciences, p.3412


[Available at: http://ieeexplore.ieee.org/document/6556752/]


Pagani, M. (2013). Digital business strategy and value creation: framing the dynamic cycle of control points, MIS Quarterly (37)2, p.617


Doctoral Dissertations and Master's Theses


Report

A world economic forum report (2011). Global Entrepreneurship and the Successful Growth Strategies of Early-Stage Companies, In collaboration with Stanford University, Graduate School of Business, SPRIE and STVP

Websites


Social Media Landscape in 2017.

LinkedIn in 2018
[https://press.linkedin.com/about-linkedln]
Number of Social Media users from 2010 to 2021 (in billions)

Amazon's first checkout-free grocery store opens on Monday

Appendices

Questionnaire for interview

Description of the interviewee:
Name (No name):
Age:
Occupation:
Education
Previous background:
Position and role within the current organization:
Description of the Startup:
Name (No name):
Year of establishment:
Number of employee:
Core Activities:
Services:
Business operation (Area covered):
Organizational structure:
Vision and Mission:

1. Which factors motivated to establish startup firm?
2. What is in your opinion the role of digital technologies in this process?
3. Why do you establish this consultancy firm?
4. Who are the clients/customers/partners/competitors of the company? Where are they geographically located?
5. What are the sources of value creation?
6. What are the functional activities for example - communication, marketing, human resource, finance, accounting, etc. of the firm?
7. How does the firm communicate and collaborate with existing and potential clients/partners?
8. What are the digital technologies (hardware and software), which are used for communication?
9. How does the firm perform promotion and marketing activities?
10. Do you use any social media to perform any business activities?
11. How does the company gather, analyze, store and distribute information?
12. Which technologies including hardware and software are used to perform different functions communicating, marketing, accounting, finance, human resource, etc.?
13. What is/are the revenue model or income sources of the company?
14. What are the main source of cost/expenses?
15. How does the firm incorporate digital technology with business strategy to achieve goal of the company?
16. Do you think digital technologies provide competitive advantages? If any, how?
17. What are challenges the company facing now?
18. What will be future challenges for the company to achieve its strategic goals?
19. In your opinion, how could digital technologies assist the startup to achieve its both short term and long-term plan?
20. In your opinion, what are the main factors that are necessary for start-ups to be successful?