



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES**  
**SCHOOL OF INFORMATION SCIENCE**

**BRIDGING THE GAP BETWEEN  
BUSINESS STRATEGY AND IT STRATEGY:  
EXPLORING STRATEGIC ALIGNMENT GAP**

**By**

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**JUNE, 2018**  
**ADDIS ABABA, ETHIOPIA**



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A Thesis Submitted to School of Graduate Studies of Addis Ababa University in  
Partial Fulfillment of the Requirements for the Degree of Master of  
Science in Information Science

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Advisor: Workshet Lameneu Debay (PhD)

June, 2018

Addis Ababa, Ethiopia



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Date

## **Declaration**

This thesis has not previously been accepted for any degree and is not being concurrently submitted in candidature for any degree in any university.

I declare that the thesis is a result of my own investigation, except where otherwise stated. I have undertaken the study independently with the guidance and support of my research advisor. Other sources are acknowledged by citations giving explicit references. A list of references is appended.

Signature: \_\_\_\_\_

King Solomon

This thesis has been submitted for examination with my approval as university advisor.

Advisor's Signature: \_\_\_\_\_

Workshet Lameneu Debay (PhD)

## **Dedication**

To all Ethiopian Christian martyrs described in the book of Deqiqe Istifanos translated as by

Professor Getachew Haile in 2011, Addis Ababa University Press.

To the 30 Ethiopian Christians who are brutally shot and beheaded in Libya.

To my late beloved sister, Fanos Tilahun.

---

To my beloved wife, Hiwot Esayas (Reina), who are dedicating her life diligently for my success.

## Acknowledgements

I was thinking deeply on the way how I express my gratitude to those who contribute in to my endeavor towards the achievement of developing this master thesis. Truly speaking there are many things which they did to me. If I should be written even the particular one, I suppose that even all the pages of this thesis could not contain the acknowledgement that should be written.

Given that the reason, I supposed to write only their names with descriptions. I understand that their deeds compacted under their names. Furthermore, I prefer to thank the Almighty God by His word rather than expressing my gratitude towards Him via human language only.

- *“Now thanks be unto God, which always causeth us to triumph in Christ, and maketh manifest the savour of His knowledge by us in every place.” 2 Corinthians 2:14*
- 

- Dr. Workshet Lameneu Debay (my thesis advisor)
- Hiwot Esayas (my companion, and the wife of my covenant) & her beloved family
- Solomon Hailemariam (my beloved God given father and the author of two books)
- Dejjitnu Tegenie (my beloved God given mother and woman of God)
- Roza Tesfaye (my beloved elder sister) & her beloved husband Yohanness Kassa
- Ezra Solomon (my beloved junior brother)
- Hiwot Gebretsadik (my beloved junior sister)
- Nebiyu Desalegn (my beloved junior brother)
- Yilma Shiferaw (my beloved brother and the author of two books)
- Company-A and participants
- United Nations Economic Commissions for Africa and its staff members
- Addis Ababa University Lecturers and the whole community
- The unknown contributors

## **Abstract**

We are in the midst of a “business-IT strategic alignment turn” and it is playing an important role in a mindset and guiding principle that ought to be visible in all parts of the relationship between business strategy and IT strategy. Over the last three decades, the need for the strategic alignment has been increasing tremendously. Alignment refers to the degree of integration between business and IT strategies. The increment in the advancement of information technology in business and industry turned information technology in to an indistinguishable part of business in all sectors including government, commerce, hospitality, healthcare, and academia. However, alignment in the context of exploring the business-IT strategic alignment gap particularly in the financial sector of a developing country is still less explored. This research attempts to provide an insight into this shortcoming via bridging the gap between business and IT strategies on the way to reveal best management practices and strategic choices of alignment in the selected case company.

Using a qualitative, single case study approach this study provides major insights of knowledge into strategic alignment gap in principle and practice. Thus, a case study is conducted in one of the largest Ethiopian private banks. The data is collected through fourteen semi-structured interviews, structured interview and the use of company’s documents.

The main findings showed that the lack of strategies in both business and IT departments, the lack of outsourcing oversight metrics, the delinquency to provide current requirements of business by IT, The lack of focus by IT department to meet the current business need, the lack of ability to use all of the existing core-banking system’s features, the ineffective way to delegate the right tasks to the right people, and the delinquency to capture knowledge from outsourcing providers considerably influence the business-IT strategic alignment within the bank in Ethiopia as a developing country.

The study also proposes a practical framework that allows business and IT managers to bridge the strategic alignment gap. Through the use of this framework, strategic alignment gap is more likely to be revealed, detected and minimized in practice towards the benefit of organizational performance.

**Keywords:** strategic alignment gap, business-IT alignment, business strategy, IT strategy, case study

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## List of Acronyms

BITA	Business Information Technology Alignment
BSC	Balanced Score Card
COBIT	Control Objectives for Information and Related Technology
EMAIL	Electronic mail
ICT	Information Communication Technology
IS	Information System
IT	Information Technology
ITIL	Information Technology Infrastructure Library
IUM	Interrupted User Minutes
SAG	Strategic Alignment Gap
SLA	Service Level Agreement

# CHAPTER ONE

## INTRODUCTION

### 1.1. INTRODUCTION

This thesis primarily explores business-IT strategic alignment gaps in order to investigate and show the way how to bridge the gap between business strategy and IT strategy in context of one of the prominent private financial banking sector found in Addis Ababa, Ethiopia. This chapter gives an overview to the thesis and explains background and the structure of the paper. The building blocks of business and IT strategic alignment are addressed throughout the thesis.

### 1.2. RESEARCH BACKGROUND

Coltman, Tallon, Sharma, & Queiroz (2015) explain in their paper; “*Strategic IT alignment: twenty-five years on*” that the genesis of IT alignment goes back to 80’s and confirmed that business and IT alignment topic is relatively matured topic. Several research papers also affirm that business-IT alignment issues remain a top critical concern for over three decades (Luftman, 2003). The findings of the annual survey of Society for Information Management on IT issues and trends that was done in 2015 by Kappelman, Johnson, McLean, & Gerhart (2014) in 785 reacting organization has positioned business-IT alignment as the first in the main ten most critical IT management issue for IT leaders in organizations. In fact, between the year 2005 till 2015 business-IT alignment was positioned as the primary most essential IT management issue (Rusu & Gbangou, 2016).

On the other hand, Luftman & Brier (1999) and McLean & Soden (1977) claim that the importance of alignment has been well known and documented since the late 1970s. And explain that alignment grows in importance as companies strive to link business strategies and continuously evolving technologies. What is not clear till this day is how to achieve and sustain this harmony between business and IT and what the impact of misalignment might be on the firm.

The conception of strategic alignment starts from a group of conceptual and empirical work in the organization theory literature whose crucial suggestion is that organization performance stands the result of fit between at least two factors: strategy, structure, technology, culture, and

environment (Schlosser, Wagner, & Coltman, 2012). Strategic alignment enables organizations to utilize their assets viably to help their business strategies. Consequently, it empowers them to expand the effect of this speculations, incorporate IT and business process, and increment aggressiveness, income development, and benefit (Yayla & Hu, 2012). Whereas lack of strategic alignment can hinder organization's performance and profitability that result in organization's investing heavily in IT system that do not meet their needs (Kashanchi & Toland, 2006). In addition to these investigations Henderson & Venkatraman (1993) explain that the reason why the incapacity to comprehend value from information systems (IS) is because of the lack of alignment among business and IT strategies of organizations.

The main reason that brought strategic IT alignment research was a project from the 'MIT90s' led by Michael Scott Morton at the Center for Information Systems Research (CSIR) at MIT. Consequently, the well-known Strategic Alignment Model of Henderson and Venkatraman emerged from that part of the MIT90s (Coltman et al., 2015).

### **1.3. RESEARCH MOTIVATION**

Researches are needed to better understand what motivates a researcher to become involved in a research. It's an acceptable standard that research should come out of a desire or motivation to do things better (Singh, 2006). On the basis of this fact, our research paper particularly focused on the following driving force of motivation to in order to find out answer for existing gaps of BITA and problem acclaimed in the future.

- Due to what we have seen practically in Ethiopia how giant organizations like Information and Communication Technology, Ethio Telecom, Ethiopian Power Utility, Ethiopian Water Authority and Ethiopian Road Construction are unable to align their strategies (Reporter, 2016; Ethiopia, 2016).
- Due to the reason that the probability of system failure in New York stock exchange is infinitesimally small since there is a system comprising of IT infrastructure management and IT service management (ITSM) in relation with stable business-IT strategic alignment (Puvvala, Rai, & Patil, 2016). We are greatly passionate and motivate to adopt such stable technology for the current growing economy of Ethiopia.

It gives practical solution to several claims that the “no system<sup>1</sup>” reply from most of the financial sectors in Ethiopia.

- In order to save the costly payment of 30,000 USD for the initial strategic alignment maturity assessment by prominent scholars of BITA (GIIM, 2014).
- To dig out and explain how the business-IT alignment frameworks/models can be applied to platform organizations, illustrative by Apple, Google, and Amazon, in which value creation is primarily a function of corporate strategies and IT platform-based competences (Reynolds, 2015).

Apart from the primarily motivations listed above this research paper agrees on scholarly acceptable motivations and need for alignment research as pointed out by (Chan & Reich, 2007).It’s summarized as shown below (see Table 1).

MOTIVATION	SOURCE
Linking the business plan and IT	McLean & Soden (1977) Henderson & Sifonis (1988)
Ensuring congruence between the business strategy and the IT strategy	Chan & Reich (2007)
Examining the fit between business needs and information system priorities	Luftman (2000) Luftman (2003)
Emerged from a focus on strategic business planning and long-range IT planning	IBM (1981)
The business and IT performance implications of alignment	(Chan, Huff, Barclay, & Copeland, 1997) de Leede; J.C Loosie & B Alders (2002) Irani (2002) Kearns & Lederer (2003)
Continuing debate over the business organizations whose survival is dependent on value creation	Henderson and N. Venkatraman (1993)

*Table 1. Motivation and need for alignment research  
(Adopted with modification from Chan & Reich 2007, pp.297-298)*

<sup>1</sup> It’s an episodic confirmation that is basically known however not all around reported through observational investigations.

#### **1.4. STATEMENT OF THE RESEARCH PROBLEM**

*“A research problem is an educational issue concern, or controversy that the researcher investigates”* (Creswell, 2012). The central part of this thesis paper is to take a look at the current state-of-the-art of business-IT strategic alignment in contrast of the current resident problem of strategic alignment in the context of the selected case organization. This issue of SAG can be achieved by identifying barriers in the business and IT strategies. There is resident and visible strategic alignment gap in Company-A that has to be addressed via an empirical research.

Organizations and their information technology (IT) capacities are encountering a time of remarkable change and opportunity (Luftman, 2003). An empirical investigation on this matter is a must to comprehend and benefited from these opportunities among business and IT strategies. Furthermore, the key is to understand why an area is out of alignment and what action should be taken to achieve better strategic alignment.

Previous research on business-IT alignment has focused on developing an ultimate model (Coltman et al., 2015). Consequently, alignment researchers have developed many models to explain how alignment generates value for firms. However, these models use inconsistent definitions and measures of alignment (Gerow, Thatcher, & Grover, 2015). Several studies have examined the question of the initiation of strategic alignment in order to detect and minimize the gap between business and IT strategies. Organizations needs a mechanism to detect and close any alignment gap in order to proof that the relationship of their information technology(IT) and non-IT organizations be improved. Even though strategic alignment of business and IT has proved to be very important, many organizations still struggle with it. It appears that selecting and prioritizing IT initiative is experienced as a burden by managers. Though many models have been developed for strategic alignment, one of the main points of criticism on the existing research is that it is too theoretical and fails to capture real life (Chan & Reich, 2007). Simply put, the theoretical models that deal with the various aspects of strategic alignment are not usable in practice. And most of the literatures are assessing different issues that need a lot of attention at the same time which might end up difficult to implement in real life. Therefore, this research has focused particularly on minding this gap between IT strategy and business strategy that was under-represented in the research literature and is less understood.

The relationship between business-IT strategic alignment and firm performance appears to have been well established in the literature, yet its validity in the context of developing countries is unclear and has not been studied before (Yayla & Hu, 2012). Furthermore, this investigation affirms from a developing country researcher (Bogale, 2016) as 35.8% of the respondents from financial sectors in developing country (Ethiopia) expressed that the level of alignment is underneath normal ('not really' and 'not at all'). Bogale (2016) also portrays in tabular format that how the situation of business-IT strategic alignment looks like in the Ethiopian context. The study indicates that there were no such studies concerning strategic business-IT alignment in the past (see Table 2).

	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Not at all	11	8.2	8.2
Not really	37	27.6	35.8
To some extent	61	45.5	81.3
To a large extent	25	18.7	100.0
<b>Total</b>	<b>134</b>	<b>100.0</b>	

Table 2. The state of Business-IT strategic alignment in the Ethiopian financial industry  
(Reprinted from Bogale 2016 p.161)

The results shown above in Table 2 are lists of respondents from a developing country's (Ethiopia) financial industry. The table portrays that the level of strategic business-IT alignment is less explored particularly in the context of developing country (Ethiopia). The proper alignment of IT and business strategies are only confirmed by 18.7% of the respondents. As we have discussed earlier that 35.8% of the respondents agree that the degree of alignment is below average. The respondents affirm that there is no a real business-IT strategic alignment in Ethiopian financial industry at all. Whereas 45.5% of the respondents indicate that the business-IT strategic alignment is 'to some extent'. This indicates that the degree of alignment is at a medium level.

Besides, in developing countries IT departments are often seen as service centers rather than strategic units and coupled with limited IT maturity (Yayla & Hu, 2012). This indicate and depict that there is a big gap in using IT for strategic organizational goals in developing countries like Ethiopia (Bogale, 2016).

What we observe from the unpublished thesis work of Abudulselam (2016) has not clearly shown us critical factors that become considerably hinder business-IT alignment with in his

selected banks including commercial bank of Ethiopia. Whereas an evidence about the result of a research from Rusu & Gbangou (2016) shows the main factors of business-IT strategic alignment that were not considered well through the work of Abudelselam (2017) with in the financial sectors or banks in developing countries. Those factors identified by Rusu & Gbangou (2016) concerning hinderance of business-IT alignment influences are the following: *“delay in task execution”*; *“the lack of time to acquire new knowledge”*; *“the insufficiency of cross-sectional training”*; *“the dependency on telecom operators”*; *“the heavy workload of banking staff”*; and *“the reluctant to hire more personnel and reduce workload”*.

Amare (2013) in his unpublished thesis paper explain the issue of strategic business-IT alignment in the context of Commercial Bank of Ethiopia (CBE) confirmed that it's is categorized under basement level. Commercial banks in developing countries (Ethiopia) are investing huge amount of money for IT infrastructure, yet their investment lead to bankruptcy due to lack of alignment on business and IT strategies (Bogale, 2016).

In the context of a developing country like Ethiopia what is more important as a first place is researching the strategic alignment gap in line with assessing the strategic alignment maturity. The developed countries are at a high speed and distance than the developing one regarding business-IT strategic alignment (Yayla & Hu, 2012). In order to reach to the level where developed countries, about business-IT alignment, our research has to be focused on both exploring the strategic alignment gap and assessing strategic alignment maturity of an organization at the same time. This is the horn of our research where we endeavor to reveal a way to detect hinderance of BITA and developing a framework to manage and minimize the business-IT strategic alignment gap. In continuation of this issue we need reliable strategic alignment between IT strategy and business strategy to get the value that IT and business are intended to create. To make this happen in reality we have to detect the strategic business-IT alignment gap, which we call SAG in this research paper. This is the main research problem that has not been well assessed by most of business-IT alignment (BITA) literatures mainly in the context of developing countries as explained in detail by (Yayla & Hu,2012; Bogale, 2016).

Examples of evidence justifying the research problem, the effects of alignment and lack of alignment can be found in practice:

As a justification, I have assessed useful cases from two Ethiopian organizations where I have been working as an IT Head and an IT Expert in the year 2008 and 2012 one from private sector and the other from governmental organization. In both of the organizations I have detected that there is a wide communication and perceptions gap between the IT professional and the business leaders and executives. In fact, in both of the organizations there was no IT strategy at all. IT was considered only as a support and as a cost maker.

The consequence in both of the organizations were severe. A cost of 2,500,000.00 Birr<sup>2</sup> IT based projects has been cancelled from the organization of the government due to less understanding of business by IT and less understanding of IT by business. And the private organization has invested 750,000 Birr on wrong IT investment. This is a real-life context of an evidence that there was big alignment gap between IT and business strategies in both of the organizations.

The other iconic event that has to be raised here to support the problem statement is the contract agreement between Ethio Telecom and France Telecom. The partnership and support framework agreement/contract, which was signed on December 13, 2012, would have been in the form of the Master Framework Agreement and it was managed under the auspices of the Ethio Telecom Board of Directors. Support to a strategic program would have been also taken one year. And the contract agreement with France Telecom concluded after two and half years. Ethio Telecom explained about the main disagreement with France Telecom were due to less quality of customer satisfaction (Ethio Telecom, 2013) .

The annual reports of Ethio Telecom from the year 2008-2012 confirmed that the government of Ethiopia ended up worried about the deficient income created through the administration of France Telecom when contrasted with network growth. Given that the reason, France Telecom in 2012 faulted a US\$50 million (7% of income) Ethio Telecom loss on the "grey market", looking to divert the negative consideration. The agreement with France Telecom was ended in 2012 and the administration of Ethio Telecom exchanged back to the neighborhood specialists. Compared to relative network growth under France

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<sup>2</sup> Ethiopian Currency

Available at: <http://www.xe.com/currency/etb-ethiopian-birr> [Accessed 24 Apr. 2018].

Telecom's management, Ethiopian government considered revenue gains insufficient (Adam,2012).

In that context it indicates that there is a wide research gap that has to be assessed through providing detail understanding with implementation of the right business-IT strategic alignment framework in developing countries (for instance, Ethiopia). Yayla & Hu (2012) confirm the reason behind such bankruptcy is lack of national policies and standards as shown in Table 3 via notifying some of the important characteristics of IT environment in developing countries. These all mess-up in Ethio Telecom is mainly due to lack of strategic alignment.

We have observed from the above listed fact that there are several and critical research gaps in business-IT strategic alignment in Ethiopia. This gap between theory and practice concerning business-IT strategic alignment is the focus of this research thesis, in particular on the revealing, managing and bridging of strategic alignment gap.

IT ENVIRONMENT	DESCRIPTION	SOURCE AND COUNTRY OF STUDY
Country level Infrastructure	Unreliable and inadequate power sources, limited communication network, high cost of importing technology due to low GDP	Aldhmour (2009) – Jordan , Huang & Palvia (2001) – India, China, Brazil Osterwalder (2003) – multiple countries <sup>a</sup> , Sahay & Avgerou (2002) – multiple countries <sup>b</sup> , Yahya (1993) – multiple countries <sup>a</sup>
Government stability and policies	Highly volatile political environment, lack of government deregulations, lack of legislations on intellectual property, failure to support national policies and standards, dependency on foreign resources, decisions driven by expediency rather than rationality	Aldhmour (2009) – Jordan, Huang & Palvia (2001) – India, China, Brazil Ozkan et al (2008) – Turkey, Sahay & Avgerou (2002) – multiple countries Silva (2002) – Guatemala, Yahya (1993) – multiple countries
External funding	Lack of external and government funding, large national debt	Aldhmour (2009) – Jordan, Huang & Palvia (2001) – India, China, Brazil Yahya (1993) – multiple countries
Organizational level IT functionality misfit	Misfit due to needs for localization of imported software, issues with universal IT language being English	Gil et al (2009) – Turkey, Kirlidog (1997) – Turkey Osterwalder (2003) – multiple countries, Yahya (1993) – multiple countries
Management of IT	Lack of management commitment, management misfit due to inexperience with complex IT systems or corruption, management style misfit due to software that is developed in different cultures, low IT maturity, lack of management culture of using computers	Huang & Palvia (2001) – India, China, Brazil Mahfoudhi & Faiz1 (2008) – Tunisia, Saudi Arabia Yahya (1993) – multiple countries Abudelselam (2017) – Ethiopia Girma (2013) - Ethiopia
Human capital	Lack of IT education, training, and experience resulting in low IT absorptive capacity and IT illiteracy	Gil et al (2009) – Turkey, Huang & Palvia (2001) – India, China, Brazil Mahfoudhi & Faiz (2008) – Tunisia, Saudi Arabia Kirlidog (1997) – Turkey, Yahya (1993) – multiple countries
Consumer level Lack of user experience	Only a small percent of the population has computer experience	Kirlidog (1997) – Turkey, Osterwalder (2003) – multiple countries

*Table 3. Major characteristics of IT environment in developing countries  
(Adopted with modification from Hu & Yayla (2012), p.377)*

An interesting organizational performance growth effect via applying successful business-IT strategic alignment has been registered by the world's largest logistics corporation known as United Parcel Service. UPS has more than 10,000 vehicles for the purpose of several types of messages deliverance on the road. The company proposes a strategy to decrease vehicles service time by increasing speed on the road in favor of saving at least a few dollars of fuel each day. This would bring a great impact to save large amount of money to the company.

The company, UPS implements a telematics technology to make happen the strategy in to reality. In that way, the technology uses to serve the company's trucks in running and maintaining services. An investigation has proved that the amount of time trucks idled was reduced by 24 minutes per driver per day. The same impact has showed in fuel savings of 188 US dollars per driver per year. For the total of 90,000 US package drivers, the resulting annual savings would figure over 16,000,000 US dollars (Industry Leaders Megazine, 2011).

In the example given above, where UPS implemented telematics technology, the change was initiated by the devotion of the organization to cut costs. This implementation can be categorized under the technology scope of the IT strategy domain. The implementation of this new technology influencing the IT/IS infrastructure.

*Metric: Interrupted User Minutes (IUM)*

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The senior analyst Roy Atkinson in his support as a business unit titles as "*Alignment and Beyond Support as a Business Unit*" designates an interesting metric known as Interrupted User Minutes (IUM). He explains about the perspective gap among IT and business executives using an example how they are thinking if an email system is down for 30 minutes for 10,000 users (Atkinson, 2017). And consequently, he gives an explanation about the IUM metrics concerning the down of the email system as follows:

**Metric: Interrupted User Minutes (IUM)**

Number of users interrupted X Length of Interruption

$$10,000 \times 30 = 300,000 \text{ IUM}$$

Average percent of time spent in email: 30%

$$300,000 \times 30 = 90,000 \text{ IUM}$$

$$1500 \text{ hours} = 62.5 \text{ days}$$

**187.58 hr. workdays**

The interpretation of the calculation stated above concerning different perspectives of thinking towards business and IT executives are as follows:

- **IT department thinks:** “*Outage was 30 minutes*”.
- **Business department thinks:** “*10,000 users were down for 30 minutes*” and to further explain what this means is that business executives think that “*almost 188 days of lost productivity*”.

Even though strategic alignment of business and IT has proved to be very important (Luftman,2015), many organizations still struggle with it. It appears that selecting and prioritizing projects to implement is experienced as a burden by managers (Chan & Reich, 2007).Overall, the summary hints at several problems in the selected case organization (Company-A):

1. Business-IT strategic alignment gap can hinder organization’s performance and profitability.
2. The gap between IT strategy and business strategy result organizations in investing heavily in IT systems that do not meet their needs.
3. There are visible gaps from the side of IT department that need to be align with the business side of the organization.
4. Lack of maximizing the return on investment from IT to business.

These gaps among business and IT strategies are the focus of this research paper, under the umbrella of exploring business-IT strategic alignment gap (SAG).

Thus, based on the identification of gaps and barriers in the literature and prior studies recommendations this study sets out to answer the following research questions:

1. What are the main factors that can considerably hinder business-IT alignment?
2. Which factors are more important to enable business IT alignment (bridge SAG) that facilitate performance to Company-A?
3. How to bridge strategic alignment gap between IT department and business department?

## **1.5. OBJECTIVES OF THE STUDY**

### **1.5.1. GENERAL OBJECTIVES**

The general objectives of the research is to investigate and bridge the gap between business strategy and IT strategy. This can be achieved via identifying factors in the business and IT departments strategies.

### **1.5.2. SPECIFIC OBJECTIVES**

In responding to the above general objective, this research addresses the following specific objectives:

1. To investigate whether there are existing gaps between IT strategy and business strategy;
2. To distinguish and depict the key factors of strategic alignment gap that represent obstacles to achieve successful strategic alignment; and
3. To propose successful business-IT strategic alignment model based on the research findings of strategic alignment gap(SAG).

## **1.6. SIGNIFICANCE OF THE STUDY**

A key issue in today's organization functioning is information technology (IT) that provisions business needs, process and strategies (Luftman, 2003). It has turned into an essential issue for big business achievement IT frameworks that fit to the business needs. The issue in this setting is the drive to continually complex of information technology (IT) or information systems (IS) because of the dynamic and advancing nature of the two sides of business and IT strategies (Luftman, 2003). Researches have discussed about various part of adjusting business and IT in the issue of strategic alignment (Chan & Reich, 2007). It confirms that business-IT strategic alignment considered as connecting business strategy with IT strategy.

Several prominent scholars found that business-IT alignment (BITA) have a positive relationship with organizational performance (Charoensuk, Wongsurawat, & Khang, 2014; Luftman, 2003; Rusu & Alaceva, 2015; Coltman et al.,2015). One extremely express argument towards the importance of business-IT strategic alignment is seen in the annual survey of 2014 conducted by the Society for Information Management (SIM). SIM is an expansive group of senior-level IT professionals expecting to share the prescribed procedures of the business and IT (Kappelman, McLean, Johnson, & Gerhart, 2015). Kappelman et al. (2014) discussed and

clarified the outcome from the 2014 yearly survey of IT management issues as shown in Table 4 below that demonstrates the aftereffect of best management issues and concern.

<b>IT MANAGEMENT CONCERNS/ISSUES</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>	<b>2003</b>
Alignment of IT with the Business	1	1	2	1	3	2	1	2	1	1	1	1
Security/Privacy (b)	2	7	9	8	9	9	8	6	3	2	3	3
Business Agility/Flexibility (c) (d)	3	2	3	2	2	3	13	17	7		5	7
Business Productivity	4	3	1	4	1	1	7	4				
IT Time-to-Market/	5	<b>(d) New; was with "Velocity" in 2013, and "Agility" through 2012.</b>										
IT Value Proposition in the Business	6	<b>New</b>										
Velocity of Change in the Business	7	<b>(d) New; was with "Time to Market" in 2013, and "Agility" through 2012</b>										
Innovation	8	<b>New</b>										
Business Cost Reduction/Controls	9	4	<b>Combined with "Business Productivity" through 2012.</b>									
Revenue Generating IT Projects	10	10	4	9	6	8	17					
<p>(a) Blank cells, unless otherwise noted, indicate that the issue was not asked in that year of the study.</p> <p>(b) "Security" and "Privacy" were recombined this year. Separated in the year 2013, "Privacy" was not selected by any respondent.</p> <p>(c) "Flexibility" was added this year.</p> <p>(d) In 2013, "Business Agility and Speed to Market" became "Time to Market/Velocity of Change" and "Business Agility". This year. "Time-to-Market/Velocity of Change" was separated and became three selections: "Velocity of Change in the Business," "Velocity of Change in IT," and IT Time-to-Market/IT speed of Delivery."</p>												

*Table 4. Top 10 Most Important Organizational IT Management Concerns, 2003-2014  
(Reprinted from Kappelman et al., 2014)*

From the table 4 shown above we can deduce an idea that it is easy to see how alignment of IT with business has a top concern and point of significance for many years. In fact, alignment of IT with business has been ranked as first place eight times during the year 2003–2014.

The other important investigation on the spectrum of business-IT alignment is concerning the issue of financial gain. Gerow et al. (2015) directed an investigation on clarifying the connection between various types of alignment and the financial gain or profitability of an organization. The investigation found that organization can improve business-IT alignment through proper intellectual alignment. In general, it should be valuable to roll up the significance of this research paper that needs a special attention via three key points as follows:

1. Wastage of investment due to lack of proper alignment.
2. It needs optimal set of priorities through the help of business-IT strategic alignment.

3. Acquiring disadvantages from different sorts of projects are due to lack of successful business-IT strategic alignment.

## **1.7. SCOPE OF THE STUDY**

The scope of this research paper is exploring the Business-IT Strategic Alignment Gap (SAG) in order to reveal and bridge the gap between IT strategy and business strategy through case study. Senior IT and business executives and/or directors at one of the financial organizations found in Addis Ababa, Ethiopia were interviewed in order to examine whether strategic alignment gap between business strategy and IT strategy existed at the case organization, the reasons why the strategic alignment gaps exist, and how the business-IT strategic alignment gap could be minimized.

## **1.8. LIMITATIONS OF THE STUDY**

Although this research paper offers vital understanding with respect to business-IT strategic alignment gap, there are minor limitations that has to be raised here and can be used as an input for future research.

It's an arguable fact that strategic alignment is tending to a dynamic process rather than an event or a one-time phenomenon (Henderson & Venkatraman, 1993; Sabherwal & Chan, 2001). This research introduced strategic alignment gap (SAG) exploration as a way to extract out inhibitors of alignment in order to achieve successful business-IT strategic.

Despite the valuable contribution of this research thesis the research has inherent some limitations as listed below:

- The study is strictly limited to the available and accessible information towards the data collected from the selected case company (Company-A). The time limitation of this research thesis has also played a role in that. This limitation might lead the investigation into a tight range of time that can impact the study to get more insights through collecting additional data.
- The findings may not be generalizable to the organizations. The interview of 10 directors, 3 managers and 1 officer in total 14 participants in the selected company provided us an opportunity to gain an in-depth understanding of the issues pertaining to business-IT strategic alignment gap particularly in the selected case company

(Company-A). However, more case studies would need to be conducted in to other organizations to determine whether the experiences of this particular organization can be replicated in other organizations.

## 1.9. ORGANIZATION OF THE THESIS

STRUCTURE OF THE THESIS	OBJECTIVES
<b>CHAPTER 1: RESEARCH INTRODUCTION</b>	Introduce prospects of the research and outline context of the research.
<b>CHAPTER 2: LITERATURE REVIEW</b>	Discuss the relevant and peer reviewed literatures on strategic business-IT alignment with their implications
	Describe the business strategy, the IT strategy and the implication of business-IT strategic alignment gap  Provide an overview of the current status of the research in the area of business-IT strategic alignment and the possible future research directions, along with their pitfalls and criticism
<b>CHAPTER 3: RESEARCH METHODOLOGY</b>	Discuss various steps to study the research problem in detail along with the logic behind them
	Present the research approach and methods used to conduct the empirical investigation
	Explain the development of the research instrument
<b>CHAPTER 4 : RESEARCH ANALYSIS, FINDINGS, DEVELOPMENT OF FRAMEWORK AND DISCUSSION</b>	Describe analysis and present the findings of the study
	Explain the development of the proposed SAG model
	Discuss the new term and definition of alignment found only in this research study
<b>CHAPTER 5: CONCLUSIONS, RECOMMENDATIONS AND FURTHER RESEARCH</b>	Examine the implications of the study's result, limitations of the study and outlines future research directions

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. OVERVIEW**

This chapter discusses about the significance of Business-IT Alignment (BITA) features that had been done before by researchers. Moreover, this chapter presents the current state-of-the-art concerning strategic business-IT alignment. This research paper is not only theoretical research in the form of literature review, but also empirical study. Both of those approaches are explained in the context of this thesis.

Saunders, Lewis, & Thornhill (2009) listed two major reason why literature review is essential for a thesis or any project in general. First literature review is the tool for the preliminary research required to formulate a good research topic and problems. Second to provide the base for the findings and analysis.

Business-IT Alignment (BITA) in the context of bridging the strategic alignment gap is still less explored specially in developing countries (for instance: Ethiopia). A detailed literature review is conducted to provide an overview of the current status of the research in the area of business-IT strategic alignment gap and the possible future research directions. Major databases and top conference proceedings in information systems area were searched using key words (see Table 5 and Table 6) to collect important materials for analysis.

Finally, a total of 67 articles were identified and included in the literature review. Apart from these collections we have identified and discussed the research concepts addressed in IT alignment in the selected case organization. Even though the electronic articles are the most source of information for this thesis, other sources and channels were also used whenever they are relevant. For example, standards and best practices, books or concepts were usable and valid sources for the thesis.

#### **2.2. THE RESEARCH LITERATURE REVIEW PROCESS**

The literature review process was carried out through following the guidelines proposed by Rusu & Jonathan (2017). A total of five scientific database were chosen to search publications. According to Webster & Watson (2002) leading journals are sources of articles that can

contribute significantly to the area of study. With this in mind the database of journals and conference proceedings used in the literature review as shown below (see Table 5 and Table 6).

<b>DATABASES</b>	ACM Digital Library
	Emerald
	IEEEXplore
	ScienceDirect
	Springer
<b>FORWARD SEARCH</b>	Google scholar
<b>CONFERENCE PROCEEDINGS</b>	ECIS-European Conference on Information Systems

*Table 5. Databases, journals, conference proceedings used in the research literature review*

<b>SEARCH KEYWORDS</b>	Business IT strategic alignment gap
	Business IT strategic alignment
	Strategic alignment gap
	Alignment gap
	Strategic alignment
	Business IT alignment
	IT business alignment

*Table 6. Search keywords used in the research literature review*

Many studies in business-IT alignment have been carried out and published in different trade publications (Chan & Reich, 2007) as well as academic journals/conference proceedings (Coltman et al., 2015; Grew et al. 2007). However only peer reviewed articles especially those that are investigating BITA and those that are considering to show strategic alignment gap (SAG) and those which are considered quietly relevant to bridge business-IT strategic alignment gap setting were targeted for this literature review.

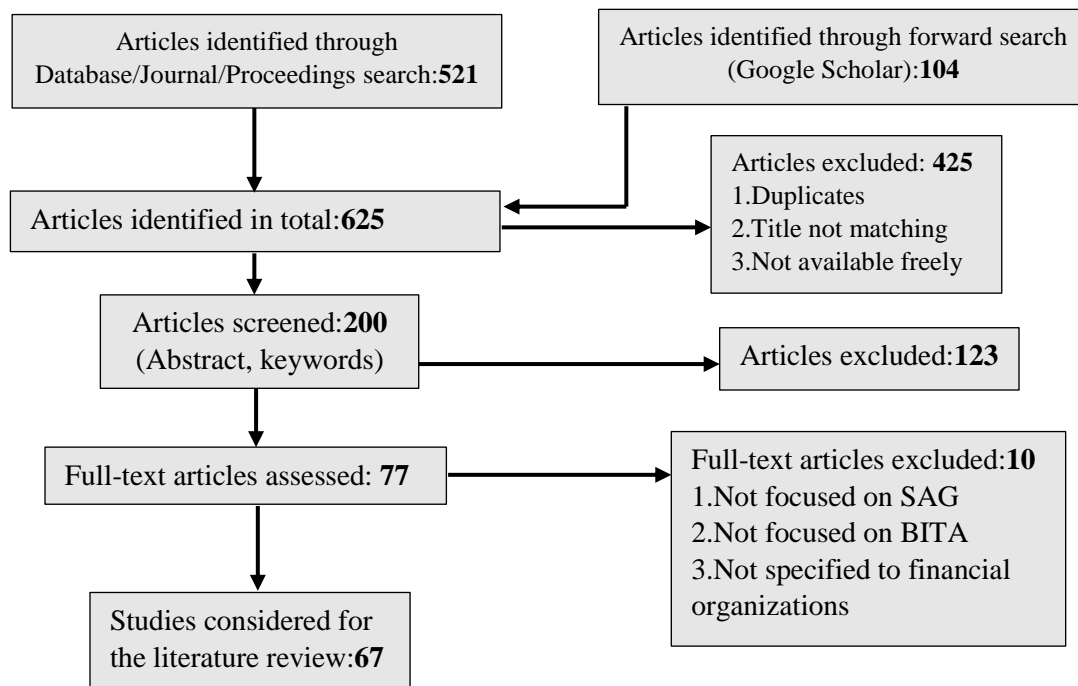


Figure 1. The research literature review process

### 2.3. DEFINITIONS OF ALIGNMENT

Review of academic literature reveals that IT alignment has been described and defined differently by different authors. Such terms as ‘*fit*’ (Venkatraman, 1989), ‘*linkage*’ (Henderson & Venkatraman, 1993), ‘*harmony*’ (Luftman, Lewis, & Oldach, 1993), ‘*fusion*’ (Smaczny, 2001), ‘*integration*’ (Weill & Broadbent, 1998), and ‘*bridge*’ (Ciborra, 1997).

Avison, Jones, Powell, & Wilson (2004) pointed out that in contrast to some other areas of IS research, there is an argument in the literature about what alignment really is, the reason it is required, how firms may approach the task of getting to be plainly adjusted, and how it should best be inquired about. While there is little concession to conceptualizing alignment and its exploration premise, the literature does regularly lament the scarcity of studies that assess how organizations carry out alignment in practice. This concept is pointing to an issue that is addressed later in this paper. Consequently, this section reviews existing research and places of our contribution within the dimensions of several perspectives of business-IT strategic alignment from several prominent writers.

At the first place, business leaders as well as IT executives are highly expected to understand the right definition of alignment in the context of business-IT alignment (BITA). Knowing the scholarly acceptable definition of BITA is the same as watching a place of far distance clearly and as near as possible with the help of a telescope. The better definition of BITA can lead us a way to bridge the strategic alignment gap between IT and business strategies as close as possible. A researcher might face to reach at the level of the right or better definition of business-IT alignment due to its several synonyms of the term from lots of prominent authors and scholars in the area of the study.

This study suggested to consider all of those synonymous terms of alignment discussed above (see Section 2.3, para. 1) in the vent that they catch the idea of coordinating activities across IT and non-IT domains with in the firm in a way that are likely to provide new services, enhance business procedures and decision making and thereby increase the value of the firm. Moreover, we agree with the idea of Coltman et al.(2015) recommendation that both the individual words in the term business-IT alignment and the way they should be understood are explored, it conceivable to move further concentrate on the whole term.

The other notably definition of alignment has been found from Luftman & Brier (1999) views of the twelve components of alignment (see Figure 2) which was originally explained by Henderson and Venkatraman from their five years research project at the research center of IBM (Coltman et al., 2015). Luftman & Brier (1999) suggested that business-IT alignment has to be defined in a well manner through the relationships among the twelve components of alignment.

## BUSINESS STRATEGY

- **Business Scope**—Includes the markets, products, services, groups of customers/clients, and locations where an enterprise competes as well as the competitors and potential competitors that affect the business environment.
- **Distinctive Competencies**—The critical success factors and core competencies that provide a firm with a potential competitive edge. This includes brand, research, manufacturing and product development, cost and pricing structure, and sales and distribution channels.
- **Business Governance**—How companies set the relationship between management, stockholders, and the board of directors. Also included are how the company is affected by government regulations, and how the firm manages its relationships and alliances with strategic partners.

## ORGANIZATION INFRASTRUCTURE AND PROCESSES

- **Administrative Structure**—The way the firm organizes its businesses. Examples include central, decentral, matrix, horizontal, vertical, geographic, federal, and functional.
- **Processes**—How the firm's business activities (the work performed by employees) operate or flow. Major issues include value added activities and process improvement.
- **Skills**—H/R considerations such as how to hire/fire, motivate, train/educate, and culture.

## IT STRATEGY

- **Technology Scope**—The important information applications and technologies.
- **Systemic Competencies**—Those capabilities (e.g., access to information that is important to the creation/achievement of a company's strategies) that distinguishes the IT services.
- **IT Governance**—How the authority for resources, risk, conflict resolution, and responsibility for IT is shared among business partners, IT management, and service providers. Project selection and prioritization issues are included here.

## IT INFRASTRUCTURE AND PROCESSES

- **Architecture**—The technology priorities, policies, and choices that allow applications, software, networks, hardware, and data management to be integrated into a cohesive platform.
- **Processes**—Those practices and activities carried out to develop and maintain applications and manage IT infrastructure.
- **Skills**—IT human resource considerations such as how to hire/fire, motivate, train/educate, and culture.

*Figure 2. The twelve components of alignment  
(Reprinted from Luftman & Brier, 1999 p.111)*

If the definition of IT alignment is revised to reflect both the extent of IT support for business strategy and the extent to which IT is deployed or leveraged in facilitating current and future business strategy, it may be possible to spot instances of misalignment that caused due to underutilized IT capabilities (Coltman et al., 2015). That is the primary reason of our research why we need to bring a new term and definition for alignment that fits the current generation and situation of the world.

According to Luftman (2003) the main objective of business-IT alignment is to ensure that the organizational strategies adapt harmoniously. This objective contains synonymously and frequently used terms such as harmony, linkage, fusion, fit, match and integration when discussing business-IT alignment. This research paper devoted to dig out a better definition that contain and reflect all of those synonyms in one. Examples of such definitions of alignment are shown below in Table 7.

<b>Henderson &amp; Venkatraman (1993)</b>
<i>“Alignment is the degree of fit and integration among business strategy, IT strategy, business infrastructure, and IT infrastructure.”</i>
<b>Reich &amp; Benbasat (1996)</b>
<i>“the degree to which the mission, objectives, and plans contained in the business strategy are shared and supported by the IT strategy.”</i>
<b>Luftman and Brier (1999)</b>
<i>“Good alignment means that the organization is applying appropriate IT in given situations in a timely way, and that these actions stay congruent with the business strategy, goals, and needs.”</i>
<b>Luftman (2000)</b>
<i>“business-IT alignment refers to applying Information Technology (IT) in an appropriate and timely way, in harmony with business strategies, goals and needs”</i>
<b>Maes et al. (2000)</b>
<i>“the continuous process, involving management and design subprocesses, of consciously and coherently interrelating all components of the business-IT relationship in order to contribute to the organization’s performance over time”</i>
<b>Campbell (2005)</b>
<i>“Alignment is the business and IT working together to reach a common goal.”</i>
<b>Avison et al. (2004)</b>
<i>“the integration of strategies relating to the business and its IT/IS.”</i>
<b>Chan &amp; Reich (2007)</b>
<i>“the degree to which the business strategy and plans, and the IT strategy and plans, complement each other”</i>

Table 7. Definition of business-IT alignment found from literature review

Scholarly definitions of alignment listed above in Table 7 tell us how business and IT should support or mirror one another, be integrated, aligned, coherent or in harmony. They make clear that alignment has to be some kind of link between business and IT.

Coltman et al. (2015) in their recent literature stated under the '*future research agenda: key themes*' section suggested that a continuing need for researchers to adapt and extend our knowledge of what it means for IT to be aligned with business. This will require a fresh thinking as the extant IT alignment paradigms are a product of a simpler time when IT was less complicated and business strategy was more stable. In that regard this research paper is dedicating to come up with new term and definition of alignment.

## **2.4. THE CONCEPT OF STRATEGIC ALIGNMENT**

Conceptually, business-IT strategic alignment is viewed in the literature as a bridge that links IT to different viewpoints on other domains of an organization and its environment (Avila et al., 2010). Business-IT strategic alignment process approves that business strategy, IT strategy, organizational infrastructure and process, and IT infrastructure and process are all in alignment (Henderson & Venkatraman, 1993).

Research on strategic IT alignment first emerged in the late 1980s as part of the 'MIT90s' project (Coltman et al., 2015). The essential concept of strategic alignment investigates a series of relationships between five critical constructs: strategy, structure, technology, people, and management processes. According to Henderson and Venkatraman (1993) business-IT alignment refers to strategic fit and functional integration among four domains: business strategy, business infrastructure, IT strategy, and IT infrastructure. This research paper focused on business strategy and IT strategy domains while pursuing to get the Strategic Alignment Gap (SAG) in the selected case organization (Company-A). As Chan and Reich (2007) pointed out that the concept of strategic alignment concerning the strategic alignment issues with in the strategic dimension refers to the degree in which the business plan and strategy and the IT plan and strategy complement each other. That is the primary issue of this research thesis to make it happen in reality.

The other concept concerning strategic alignment is critical success factors. Several literatures have listed out critical success factors towards the concept of strategic alignment in an organization. In this regard (Teo & Ang, 1999) conducted an empirical study in 169 firms on the relative importance of various CSFs that effect the integration of business and IT strategic

plan. They have identified 12 CSFs for strategic alignment where the top three CSFs are related to strategic alignment (see Table 8)

1. Top management commitment to the strategic use of IT
2. Top management's confidence in the IT department
3. Top management's knowledge of IT
4. IT management's knowledge of business
5. Business goals and objectives that are known to IT management
6. The corporate business plan being available to IT management
7. The IT department being able to identify creative ways to use IT strategically
8. IT staff who are able to keep up with advances in IT
9. Frequent communication between users and IT departments
10. Business and IT management partnering to prioritize applications development
11. The IT department's efficiency and reliability
12. An IT department that is responsive to user needs

*Table 8. Critical success factors for aligning IT plans with business plans  
(Reprinted from Teo & Ang, 1999)*

The main reason behind the need of the concept of strategic alignment by firms is due to build strategic competitive advantage, increase their visibility, efficiency and have high profitability (Rusu & Gbangou, 2016). In order to achieve these issues of strategic alignment any organization need a long-term strategy. That is why Henderson & Venkatratman (1993) pointed out that strategic alignment is a journey and not an event.

There are plenty of research papers, journals, articles and books about business-IT strategic alignment that are concerned with issues of control of resources rather than managing relationships. In spite of the criticality of business and IT relationship, little endeavors have been made to investigate about the strategic alignment gap further. Although that the strategic alignment gap expresses a vital term in an organization performance, it has not been displayed or discussed about this issue expressly in business-IT strategic alignment gap setting.

Therefore, the focus on this section is to identify and describe the reasons why does the alignment gap exist between business strategy and IT strategy. This will guide the management in business and industrial firms on how to deal with the unmanageable issues, which represented in the concept of alignment gap, dealing with different ways of management

practices for decreasing or bridging the alignment gap between business strategy and IT strategy.

A few researchers and writers in literatures specified and surveyed the term gap or culture gap in various articles with various names, despite the fact that those investigations incorporate business and IT connection issues. For instance, “*Competing in the Information Age: Align in the Sand*”(Luftman, 2003); “*Mind the gap: diagnosing the relationship between the IT organization and the rest of the business*” (Peppard & Ward, 1999); “*Information Systems issues facing senior executives: the culture gap*” (Grindley & Kit, 1992) ; and “*Measuring Your Business-IT Alignment: The longstanding Business-IT gap can be bridged with an assessment tool to your efforts*” (Luftman, 2003); “*Barriers in achieving business/IT alignment in a large Swedish company: What we have learned?*” (Rusu & Gbangou, 2016). However, none of these researchers or scholars endeavored to give a far-reaching overview or audit of the idea of alignment gap between business strategy and IT strategy in an orchestrated and theoretical way. In light of this resident problem, we propose a clearer comprehension to the concept of alignment gap between business strategy and IT strategy, and attempt to distinguish and depict it inside the setting of business-IT strategic alignment.

The concept of alignment gap between business strategy and IT strategy has really showed up because of the way that there is a different hierarchical unit in the business firm, regularly an IT department, which is in charge of IT activities. That has prompted the rise of the gap between the alleged IT department and whatever is left of the business (Peppard & Ward, 1999). An IT department refers to the collection of people giving IT management to the business in the organization. Those people are normally highly skilled in IT professions.

The concept of alignment gap utilized here, in view of most of the literatures refers to ‘culture gap’ which is a variable that clarifies the issues that can exist between the IT/IS function and whatever is left of the business (Peppard & Ward, 1999). Strategic alignment has been recognized as a key factor in constraining its fruitful use in the organization (Grindley & Kit, 1992). On the other side, culture is a dynamic idea refers to the hierarchical culture in the authoritative setting. It is a common arrangement of qualities, practices, and convictions or beliefs together with states of mind and encounters that speak to interesting characters which appear as principles of conduct in a work gathering or organization (Grindley & Kit, 1992; Galliers, 1993).

Organizational culture can be characterized as “*a pattern of shared basic assumptions that has been developed by a group in an organization to cope with its external adaptation and internal integration, that has worked well enough to be considered valid and to taught to new members as the correct way to perceive, think, and feel in relation to those problems*” (Schein, 2004). Thus, this research thesis found that the cultural thinking of the IT organization contrasts from the general prevailing business culture, where the business administration individuals talk and manage business ideas and issues regarding money related and showcasing, while the IT administration individuals talk and manage IT concepts and issues in specialized terms. For example, highlights and specialized attainability can be an input to the culture gap in an organization.

In spite of the fact that, the idea of alignment gap has been at first characterized, as introduced above, regarding organizational culture concept. It is questionable that alignment gap could be because of numerous different reasons, as opposed to culture gap. Peppard & Ward (1999) confirmed that culture is an advantageous representation of the side effects in an organization, however not an explicit reason for the gap. In this regard, the related works section explores succinctly about the strategic alignment gap as per the views of two prominent scholars (see Section 2.8).

## **2.5. EXPLORING STRATEGIC ALIGNMENT GAP (SAG)**

Exploring strategic alignment gap (SAG) is the passion of this research paper to investigate about. Despite the criticality of business and IT relationships, little attempts have been made to explore about the way how effectively using the resources in hand via identifying the gap between IT strategy and business strategy. Although the alignment gap represents an important term in business-IT strategic alignment concept, it has not been presented or discussed explicitly in business-IT strategic context.

Coltman et al. (2015) pointed out that strategic alignment can be seen in two distinct ways. First the role of IT in supporting actual business strategy is a function of the current portfolio of IT applications rather than written plans. Second, researchers have argued that, IT is deployed in support of specific activities and processes, and therefore the impact of IT should be assessed where the first-order effects are expected to be realized. These can be the issues where we endeavor to reveal the business-IT strategic alignment gap effectively.

Strategic alignment is widely recognized in the broader IS literature, and based on the view that is only when IT is effectively aligned with corporate strategies, processes and practices in order to enable companies to achieve their performance goals (Boonstra, Broekhuis, van Offenbeek, & Wortmann, 2011). Strategic alignment enables organizations to utilize their IT assets adequately to help their business strategies, thus enables them to maximize the impact of their IT investments, integrate IT and business processes, and increase competitiveness, revenue growth, and profitability (Henderson & Venkatraman, 1993; Byrd, Lewis, & Bryan, 2006). On the other hand, an organization without notifying the strategic alignment gap may face scarce IT-related investment decisions, higher financial and opportunity costs as well as an overall lower acceptance towards IT's contribution to the business (Carcary & Zlydareva, 2014).

We have been talking about the issue of strategic alignment for years that cause the gap between IT strategy and Business strategy (Peak, Guynes, & Kroon, (2005). All the experts have advised that bridging this gap should be a high priority for any organization, and yet we still see this problem persisting today. For over twenty years companies have been striving to solve this gap and apply different frameworks to achieve a high level of business-IT alignment (Rusu & Alaceva, 2015).

We have observed from the interview inside the selected case organization (Company-A) and the literature review that alignment is seen to assist a firm in three ways: by maximizing return on IT investment, by helping to achieve competitive advantage through information technology, and by providing direction and flexibility to react to new opportunities from both sides of business and IT departments. However, the apparent gap between the decision to invest in IT and the realization of benefits (Weill & Broadbent, 1998) highlights the risk of using IT to initiate new strategies and transform business. Co-operation between the business and the IT department to maximize investment in technology is vital. In that way, IT investments and business objectives have to be considered together. This is really the heart our research thesis, which is exploring about the strategic alignment gap towards the empirical research processes.

Analyzing and prioritizing the gap between IT strategy and business strategy refer to a high-level of IT planning product customized for each corporate business unit. These issues could implicate a way to customize research studies in the area of IS/IT strategy specially in the developing countries. Most of the studies in relation with strategic business-IT alignment were

led in the U.S and Canada, the legitimacy and appropriateness of the discoveries in developing countries are intermediate or uncertain (Yayla & Hu, 2012). An organized list of information solutions (for example: systems, enhancements, strategies, projects, training programs) must be surveyed well to make a tangible alignment between business strategy and IT strategy (Guynes et al, 2005).

The current state-of-the-art of strategic alignment issue has a vital influence on the global economic down turn and putting pressure on organizations and their investment strategies. The companies that are most successful in IT modernization, that refers to the high levels of business-IT strategic alignment are those that let market forces drive and direct the project, focusing on gaining new and keeping existing customers. And they let the business own and direct the project, to ensure there is alignment between IT and business strategies (Economist, 2009).

A survey conducted in February 2009 by the Economist Intelligent Unit (Economist, 2009), shows that in most companies both the business functions and the IT function understand the potential benefits of modernization. But that does not mean that most companies know how to do it right. The process itself can be complex, and requires adequate analysis of business needs and an understanding of existing systems and applications. Some of the same mistake that have dogged IT departments for decades still undermine effective IT modernization strategies. And perhaps the most debilitating mistake is improper alignment of IT modernization efforts with strategic business goals. The consequence determines the most telling difference between companies whose IT departments are considered world class and high quality and those that struggle is what drives their IT modernisation efforts (See Figure 3).

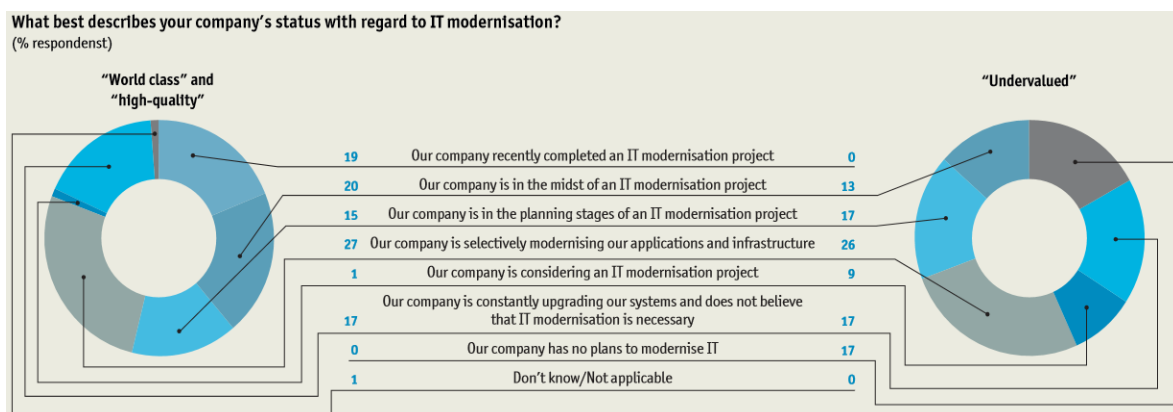


Figure 3. Describes company's status with regard to IT modernization  
(Reprinted from Economist Intelligence Unit Limited, 2009 p. 7)

(Avison et al., 2004) pointed out about the issue of disagreement concerning alignment as to whether strategic alignment ought to be seen as an outcome or as a dynamic process. The previous view was overwhelming (Weill & Broadbent, 1998; Porter & Miller, 1985) and subsequently the necessity to continue alignment dynamically was rarely recognized. However other research argues for dynamic alignment (Labovitz & Rosansky, 1997; Venkatraman, 2000; Ciborra, 1997).

## **2.6. DIMENSIONS OF STRATEGIC ALIGNMENT**

Throughout the literature, several dimensions of alignment are obviously expressed as strategic/intellectual, structural, social, and cultural (Chan and Reich ,2007). Reich & Benbasat (2000) pointed out that the strategic and intellectual dimension refers to the degree to which the business strategy and plans, and the IT strategy and plans, complement each other. Under this perspective El-Telbany & Elragal (2014) explained how it's difficult for alignment to occur in an organization that lacks formal documented plans in relation with the strategic and intellectual dimension. In addition to this, the structural dimension of strategic alignment refers to the degree of structural fit between IT and the business. Chan (2002) explained the fact about the structural dimension is influenced by the location of IT decision-making rights, reporting relationships, centralization against decentralization of IT, and the deployment of IT personnel.

In accordance to the social dimension, strategic alignment refers to the state in which business and IT executives within an organizational unit understand and is committed to the business and IT mission, objectives, and plans (El-Telbany & Elragal, 2014). To reach at the level of high alignment, IT personnel and business staff must collaborate together at all levels of an organization. Yet this way of integration might be hindered by many issues such as the invisibility of the IT staff, communication barriers, history of IT/business relationships, attitudes of organization members to IT, shared domain of knowledge, and leaderships (Chan & Reich,2007; Campbell, 2005).

At last, cultural dimension refers to the importance of cultural fit between business and IT as a precondition for successful IS planning (Chan & Reich,2007). In order to make the IS planning

effective, it needs to be aligned with cultural elements such as the business planning style and the top management communication style to be effective.

To that regard, the most commonly researched alignment measures contrast along the four dimensions of alignment. We can observe that strategic and intellectual dimension has got higher relationship with most of the measures as indicated below on table 9.

<b>ALIGNMENT FACTOR</b>	<b>STRATEGIC AND INTELLECTUAL DIMENSION</b>	<b>STRUCTURAL DIMENSION</b>	<b>SOCIAL DIMENSION</b>	<b>CULTURAL DIMENSION</b>
IT vision availability	*			
IT vision is well communicated across organization	*			
The corporate business plan is made available to the IS management	*			
Business goals and objectives are made available to the IS management	*			
Allocation of adequate resources	*	*		
IT projects have senior business sponsors	*			
IT projects reflection to business plans	*		*	
IT budget allocation based on priorities set by the business or IT priorities				
Business managers initiation to IT projects				
IT initiation IT projects				
Reason behind most IT projects	*			*
Contact frequency between the CEO and CIO			*	
Communication type between business and IT			*	*
Presence and efficiency of IT-business liaison staff in organization			*	
The CIO participates and contributes to the business planning				*
The CEO contributes to the IT planning				*

*Table 9. Business-IT Alignment Measures match to Alignment Dimensions ( Reprinted from: El-Telbany & Elragal, 2014 p.252)*

Apart from what we have mentioned above as categories of dimensions of strategic alignment this research thesis highly depends on the way how to implement those theory based dimensions in to practical and tangible actions especially in the context of the selected case organization to reveal the business-IT strategic alignment gap.

The other most important dimensions that has to be introduced in this thesis paper is the six dimensions of alignment from the view of Luftman (2003). Luftman (2003) claim that these dimensions have been successfully tested at more than 50 Global 2000 companies and is currently a benchmarking study sponsored by the Society for Information Management and The Conference Board (Belfo & Sousa, 2012). Those dimensions of alignment are listed as follows:

- Communications
- Competence/Value Measurements
- Governance
- Partnership
- Technology Scope
- Skills

## **2.7. MODELS AND FRAMEWORKS OF STRATEGIC ALIGNMENT**

In the course of time, BITA researchers have been developed several frameworks and models to set out successful strategic alignment. This concept started back to the beginning of 1980s (Coltman et al., 2015). At that time several attainments had been emerged as per the advancement of technology. Within this arena information technology (IT) started to move from supporting role to the idea of being embraced in strategic role. Progressively from that time onwards strategic alignment extended as a way to provide managers with more tangible ways to achieve alignment. Similarly, Coltman et al. (2015) pointed out and explain about the predecessor of Strategic Alignment Model (Henderson & Venkatramen, 1989; Henderson & Venkatraman, 1990) known as MIT90s framework. And followed the Strategic Alignment Maturity Model (SAMM) of Luftman (2000). All of the aforementioned models and frameworks (see Figure 4) are described in the following section.

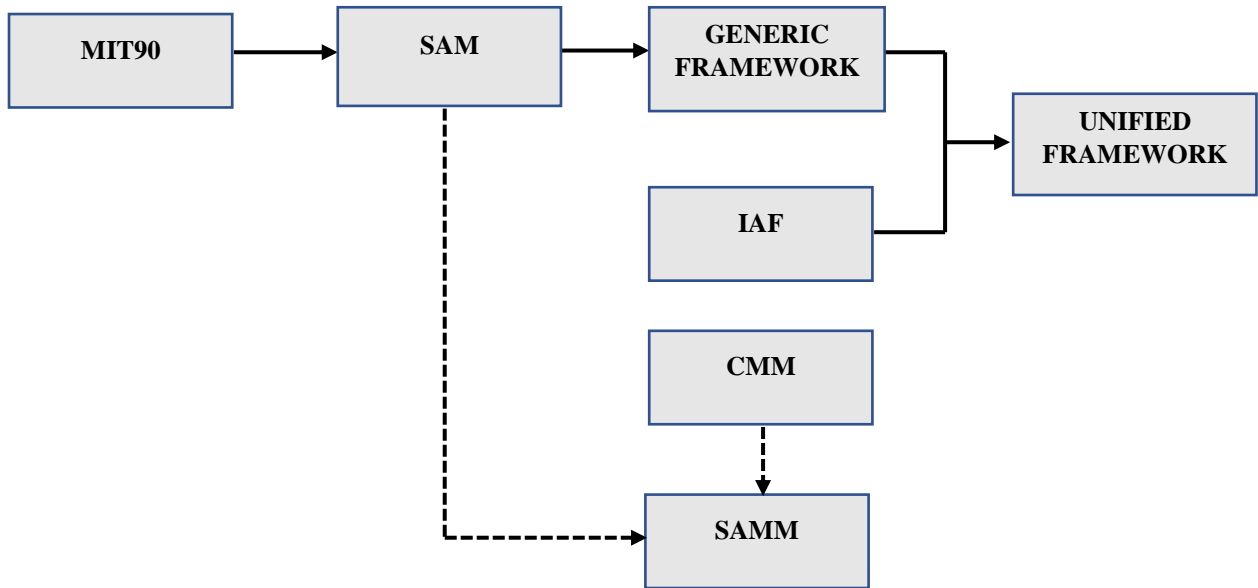


Figure 4. Overview of Strategic alignment models

Most of the models or frameworks are extracted out from MIT90 model. Then the so-called “the jewel in the crown of the Management in 90’s (MIT90) program” (Coltman et al., 2015) known as SAM has been emerged by Henderson and Venkatraman. Consequently, (Maes, 1999) build a famous model called generic framework based on the now classic Strategic Alignment Model (SAM). On top of this new model Maes, Rijsenbrij, Truijens, & Goedvolk (2000) again developed a new framework known as unified framework based on the combination of generic framework and Integrated Architecture Framework (IAF).

The broken arrows, shown above in Figure 4, that are extracted out from models of SAM and CMM towards SAMP model have their own different meaning based on the concepts gain from literatures. Luftman (2003) claimed that the SAMP model has been developed after the Capability Maturity Model of Carnegie Mellon’s Software Engineering Institute. Whereas Coltman et al.(2015) in their recent literature claim that the SAMP model of Luftman (2003) has been developed based on SAM of Henderson & Venkatraman (1993). All of the above-mentioned models (see Figure 4) and frameworks except CMM, which is out of the scope of this research paper are described briefly in the following section.

### 2.7.1. MIT90S FRAMEWORK

The framework describes different parts within an organization that need to be aligned in order to allow managers better understand business-IT strategic alignment. This framework has been extracted after a multi-year project, extending from 1984 to 1992, which was led by Michael Scott Morton at MIT (Coltman et al,2015; Morton, 1991). The model is strictly depicting a series of relationships between five critical constructs: strategy, structure, technology, people and management processes. These areas are represented graphically in Figure 5.

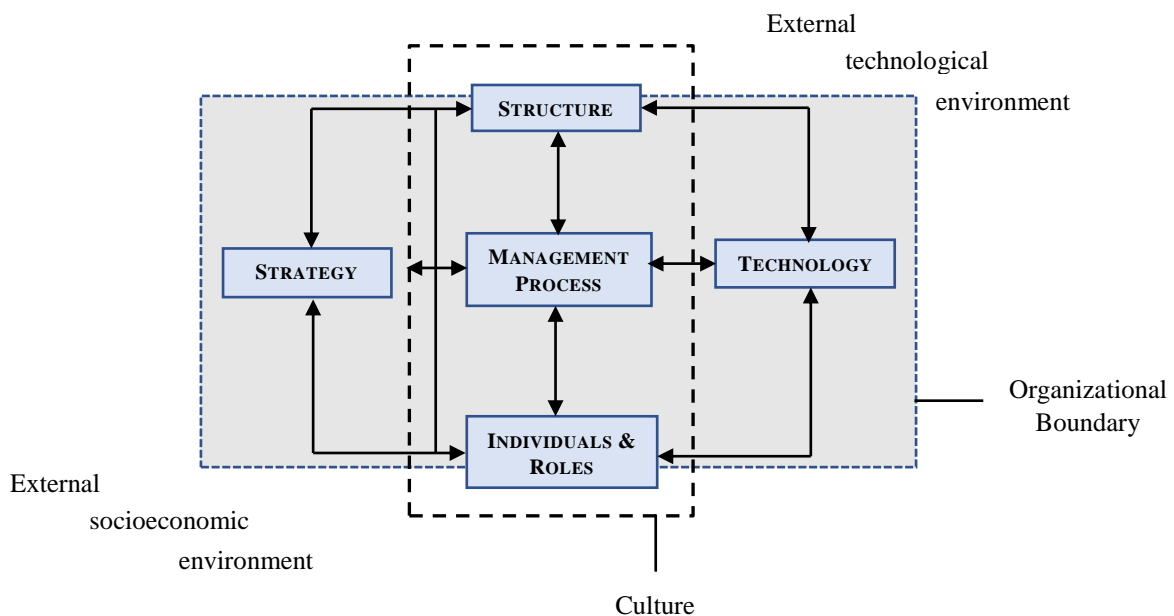


Figure 5. The MIT90s framework  
( Reprinted from Scott Morton, 1991)

### 2.7.2. STRATEGIC ALIGNMENT MODEL (SAM)

The Strategic Alignment Model (SAM) can be defined as a business-IT alignment model to enable successful implementation of business and information technology (IT) and their corresponding infrastructure components (Henderson & Venkatraman, 1990). Several number of business-IT alignment models have emerged after the invention of Strategic Alignment Model (SAM) (Coltman et al., 2015).

The internal or external area of an organization are the focus of the SAM. Since the model does not overlook at IT and business as a whole it only divides the strategies as per their focus. This results in two domains for the business side of the organization – business strategy, and organizational infrastructure and processes – and two for the IT side – IT strategy, and information systems (IS) infrastructure and processes (see Figure 6). Each domain has its own underlying dimensions that consist of three components as presented in Figure 6 as shown below.

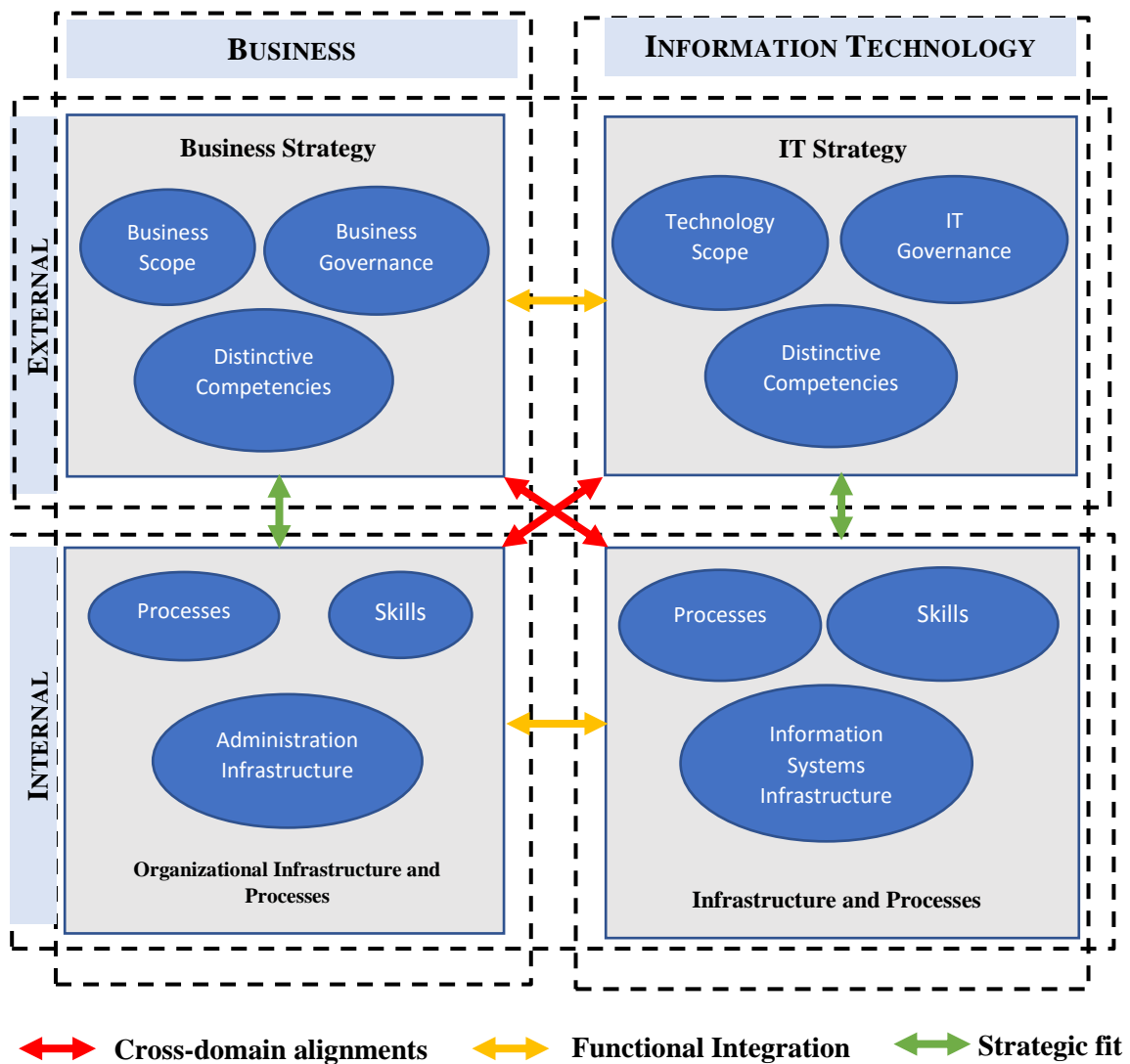


Figure 6. Strategic Alignment Model  
 (Reprinted from Henderson & Venkatramen, 1989)

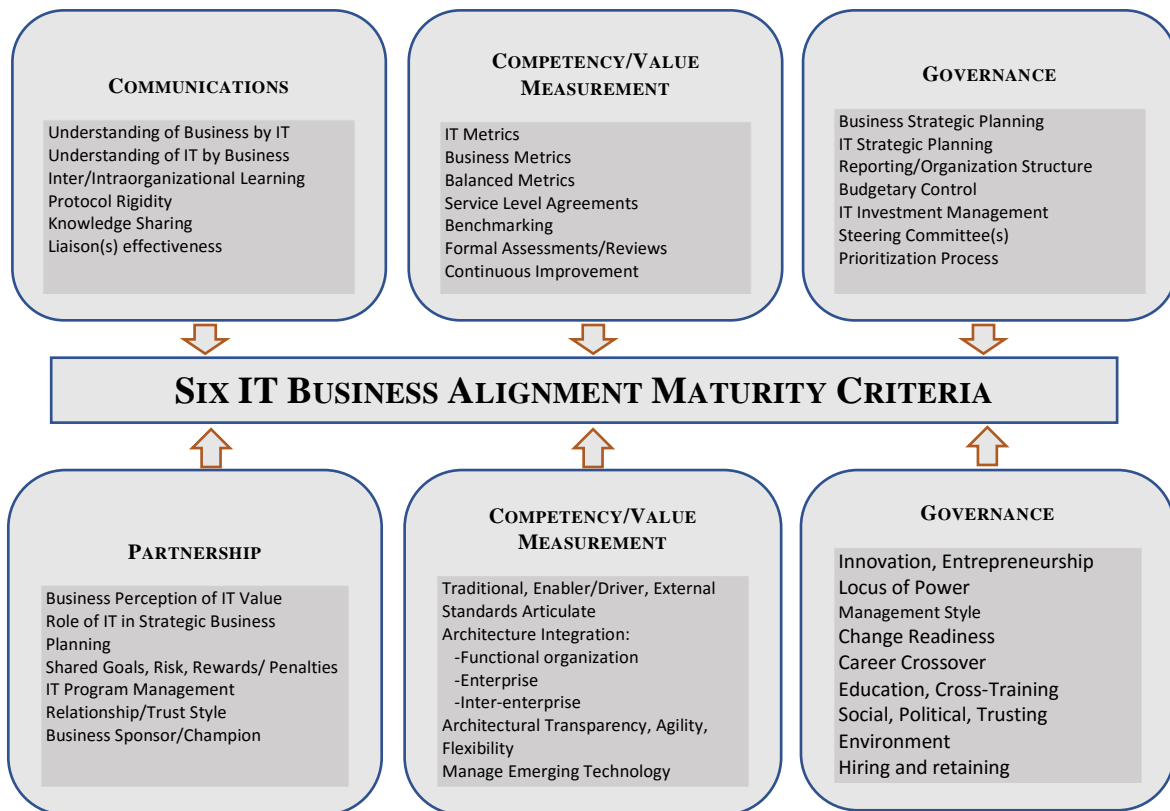
### 2.7.3. STRATEGIC ALIGNMENT MATURITY MODEL (SAMM)

The construction of this model dates back to 1996 (Luftman, 1996) and then elaborate the idea in detail by (Luftman & Brier, 1999) with the analysis of the survey data obtained from executives attending classes at IBM’s Advanced Business Institute. The main question behind the research of Luftman (1996) was focusing in how to achieve harmony between business and IT. And consequently, revealing the influence of misalignment might be on the firm. And with this ground idea a model has been developed to help firms that identify areas of strength and weakness related to alignment known as enablers and inhibitors respectively. Analysis of the survey data shows that the six most key enablers and inhibitors of strategic alignment, in rank order are:

ENABLERS	INHIBITORS
Senior executive support IT	IT/business lack close relationships
IT involved in strategy development	IT does not prioritize well
IT understands the business	IT fails to meet its commitments
Business/IT partnership	IT does not understand business
Well-prioritize IT projects	Senior executives do not support
IT demonstrate leadership	IT management lack leadership

*Table 10. The six most enablers and inhibitors of alignment  
( Reprinted from Luftman and Brier, 1999 p.109)*

This set of business practices listed above (see Table 10) formed the basis for the Strategic Alignment Maturity Model (SAMM). Consequently, the Strategic Alignment Maturity Model defines six business-IT alignment criteria, which are determining a number of different alignment maturity levels (see Figure 7). These criteria are: communications, competency/value measures, governance, partnership, scope and architecture, skills. The model of SAMM is a result of combinations of these six business-IT criteria as depicted in Figure 7 below.



*Figure 7.IT business alignment maturity criteria of the SAMM  
( Reprinted from Luftman, 2003 p.21)*

These set of alignment criteria (see Figure 7) determines the maturity level of an organization in terms of business-IT strategic alignment. These criteria were modelled after the Capability Maturity Model (Luftman, 2003). The SAMM also defines five levels of maturity for strategic alignment: initial process, committed process, established focus process, improved process and optimized process (Luftman, 2003).

#### 2.7.4. GENERIC FRAMEWORK

Avison et al. (2004) pointed out that generic framework considers as the first real attempt to upgrade SAM. Adding an additional row as well as an additional column is a new way of extending SAM by generic framework. It's used to integrate business and IT strategies as closer as possible with respect to technological advancement.

A third vertical and horizontal domain to the SAM has been emerged in the generic framework (see Figure 8). This is used to separate information/communication from technology with in two dimensions as horizontal dimension, which represents structural and operation levels. And vertical dimensions, which represents the internal and external information/communication aspects (Maes, 1999).

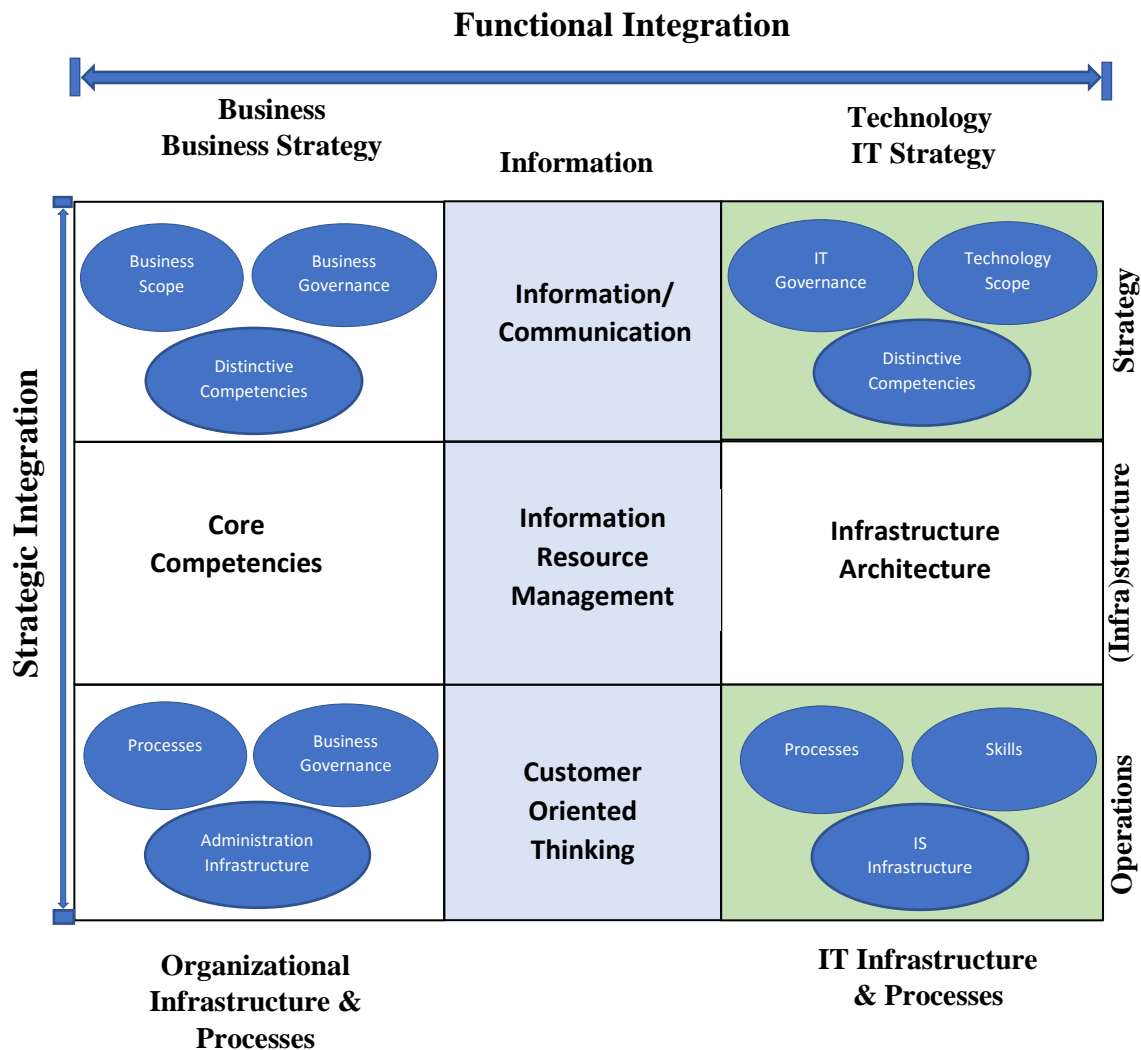
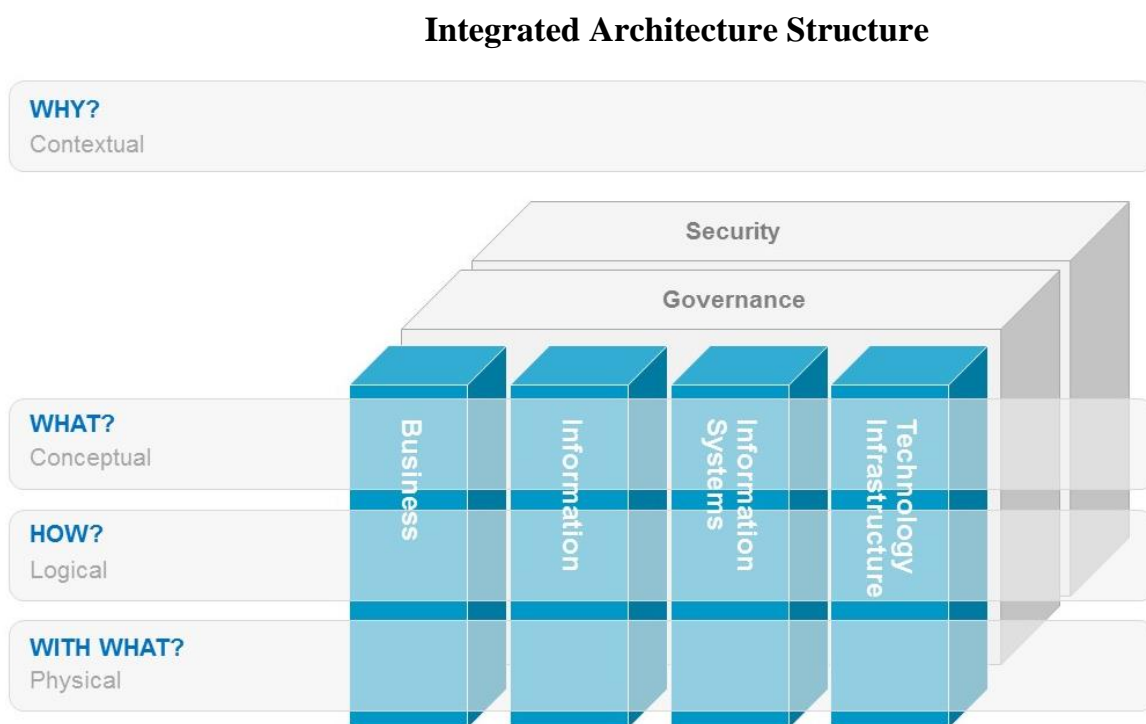


Figure 8. Generaic framework of information management

( Reprinted from Maes, 1999)

### 2.7.5. INTEGRATED ARCHITECTURE FRAMEWORK

Integrated Architecture Framework (IAF) is a similar one with generic framework that was developed by (Goedvolk et al., 2000). The framework (see Figure 9) is primarily focuses on the architectural or technical side of its predecessor SAM. In that way, the aim of IAF is used to enhance the work of Maes (1999) via integrating the architectural design of business and IT. Four major architectural areas have been defined by the IAF. Those are business, information, information systems and technology structure (Avison et al., 2004)



*Figure 9. Integrated Architecture Framework  
( Reprinted from Goedvolk, 1999)*

### 2.7.6. UNIFIED FRAMEWORK

The unified framework is a result of the combination of the generic framework and the Integrated Architecture Framework (IAF) as shown in Figure 10. The framework incorporates both management and design components through the process of transforming the process of gaining a practical method from the concept of alignment (Maes et al.,2000).

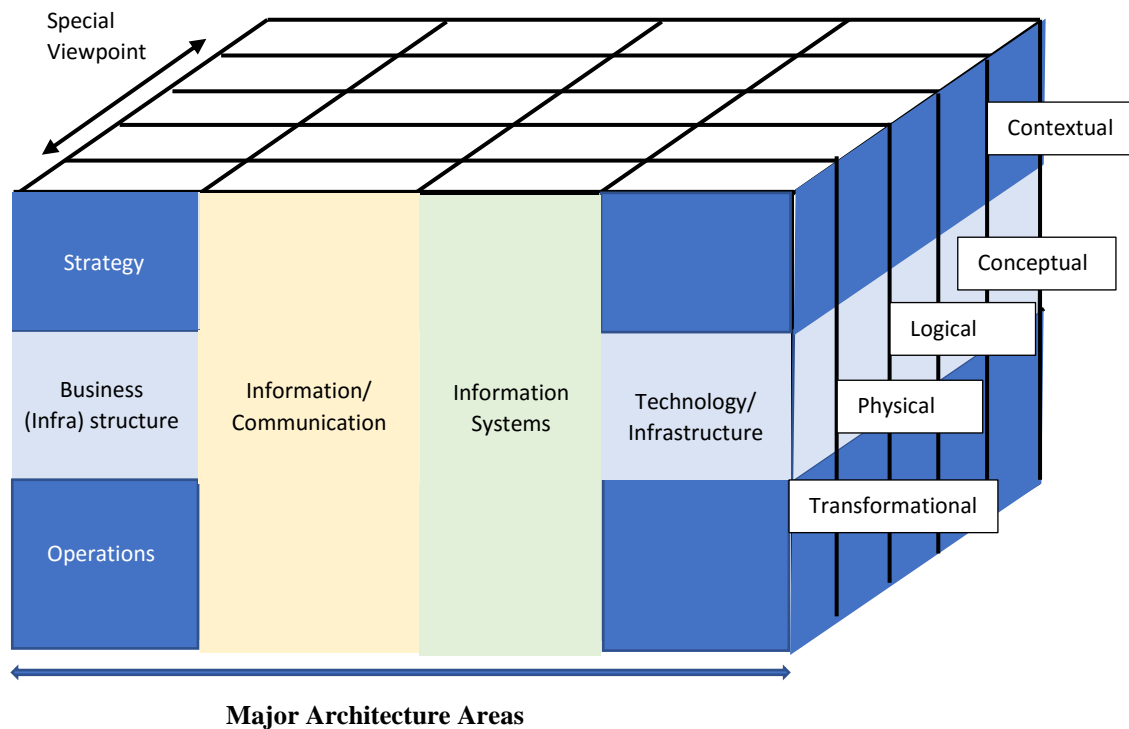


Figure 10. Alignment via a unified framework  
 ( Reprinted from Maes et al., 2000)

## 2.8. RELATED WORKS

Related works are those that are conducted by researchers particularly in relation to this thesis paper title and/or purpose. In this regard, little attempts have been made to explore the same issues. With this in mind, the next sub sections will explain nearly related works in detail.

### 2.8.1. PERSPECTIVE OF SAG UNDER WARD & PEPPARD LENS

The first perspective about alignment gap has indicated by Peppard & Ward (1999). They have explained the concepts of alignment gap in a better way. In addition, they have identified an initial framework that can help in diagnosing and describing alignment gap (See Figure 11). The framework has four dimensions that has designed to address business-IS strategic alignment gap. The four dimensions of the framework with their explanations are listed below:

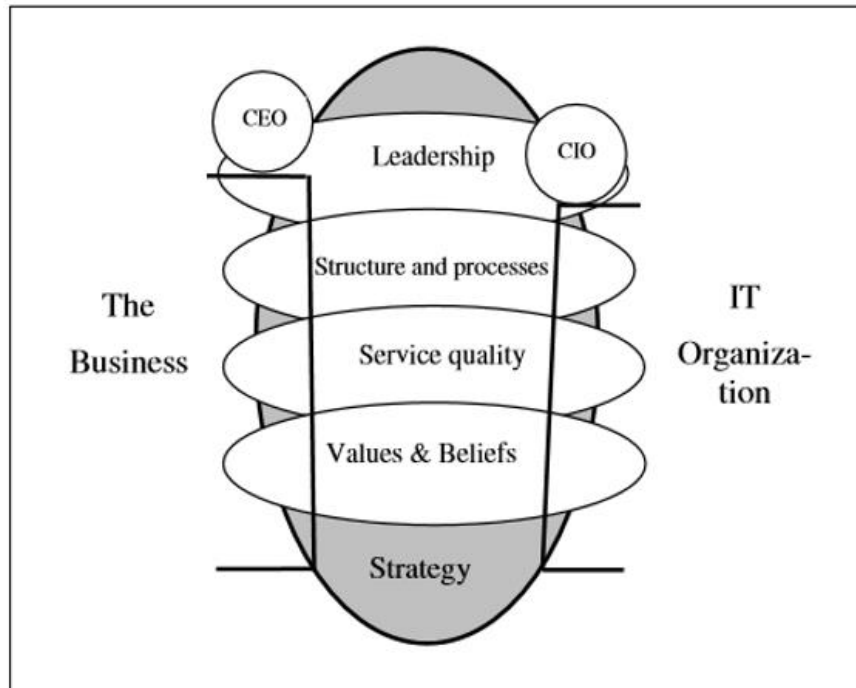


Figure 11.A research framework for diagnosing the gap  
 ( Reprinted from Ward and Peppard, 1999)

1. **Leadership:** Leadership in the context of IS literature mainly encompasses about the two main streams known as CIO and CEO. Leadership refers to the role of the CIO towards business management strategies and activities as well as the role of CEO in relation to IT strategy and activities. Organization views will be determined based on the biggest factor, the IT director's ability to add value, whether the IT is a business enabler or business inhibitor.
2. **Structures and processes:** structures and processes refer to the mechanism through which organizational activity takes place. Failure to succeed in IS/IT is the cause of inadequate structures and processes. This dimension is mainly focused on the way how structures such as IT strategy development, delivery of IT benefits, structure for service delivery and mechanisms for business and IT organization to work for the same goal in relation to corporate strategy. In addition to structural issues, there are also procedural mechanisms such as involvement of IS/IT strategy formulation, alignment of the IS/IT strategy with business objectives, and responsibility for delivering business benefits (Peppard and Ward, 1999).

3. **Service quality:** The service quality signifies as a customer-supplier exchange based on the expectation of customer from the provision of IT department. It is grounded on a comparison between what the customer feels should be offered and what is actually provided (Peppard and Ward, 1999). The expected relationship has its own parameters to set rules and regulations known as service level agreement (SLA). Peppard and Ward (1999) pointed out that “*service quality is not assessing user satisfaction with application or system, but the service provided by the IT organization*”. There are four dimensions in relation to the provision of IS/IT services. And those are: reliability, responsiveness, assurance and empathy.
4. **Value and beliefs:** The values and beliefs of organizational incumbent is used to shape once career based on the experiences which one has with IT. The reflection of the unbelievability of IT whether it's strategic or not might reflect from the incapacity of the way how to manage and deal with IT from the business manager's point of view. So, value and beliefs are indeed a powerful force and should not be underestimated.

We can deduct from the discussion that there are other factors influence the pace and effectiveness of progress in using IS/IT and in delivering business benefits (Ward & Peppard, 2002). These factors play a role in creating the alignment gap between the business strategy and the IT strategy. Ward and Peppard (1999) argued that the weighting of each factor varies over time, and will also vary from one organization to another (Ward & Peppard, 2002). These factors include: the knowledge, technological capability, deployment of technology, feasible applications, application development process gaining from the skills availability from in-house or outsourcing sources, ability and skills of using applications, driving force of performance improvement, the interpersonal relationships management, the communication, the shared vision, the leadership, the corporation, the organizational learning, the education, training, and development, and the empowerment.

The lack of any of these factors, as well as the organizational culture gap presented previously, either individually, in combinations of some of them, or mutually, will have a role in creating the alignment gap between business strategy and IT strategy, which reduce the business-IT effectiveness.

The authors (Peppard & Ward, 1999) operated that framework on three organizations as an initial step to develop a systematic organization of IT to build a mutual understanding and have shared attributes for both business and IT management. Basically, it was found that the framework has helped to diagnose the nature of the alignment gap although it was not complete

as the study was developed on just three organizations. However, as pointed out by the authors they still have the plan to carry out further surveys in a large range of organizations in an attempt to develop the further typologies and provide comparative assessment, “relationship benchmarks”, which organizations can use to take action to address gaps and ultimately improve the value they derive for IT (Peppard and Ward, 1999). Though, as mentioned earlier, we have found that the framework has proved valuable in understanding the concept of alignment gap where it offers a reasonable approach in diagnosing the alignment gap. It will give much better results if it will be elaborated to include more aspects and to be operated in much more and many different organizations in different industries. That will help to determine the different reasons that cause the alignment gap, which consequently will lead and help organizations to determine how to bridge or minimize the alignment gap between business strategy and IT strategy to achieve and sustain competitive advantages.

### **2.8.2. PERSPECTIVE OF SAG UNDER LUFTMAN’S LENS**

The second view of alignment gap is strictly mentioned by Luftman (2003). The Luftman (2003) paper considered as an approach to measure alignment between IT strategy and business strategy. The model has diverse alignment criteria or maturity categories: Communications, Competency/Value Measurements, Governance, Partnership, Technology Scope and Skills. Using a survey instrument to determine a category score for each of the six criteria by evaluating 39 alignment practices from level 1 to 5. The five levels as illustrated in Figure 12, with level 1 the least mature and level 5 the most mature (Belfo & Sousa, 2012). Luftman (2003) pointed out that the alignment gap gets smaller where there exists strong relationship between business and IT strategies.

A model has been developed and tested that involves assessing each of the six criteria listed above based on five levels of strategic alignment maturity. Figure 12 illustrates the five levels, with level 1 the least mature and level 5 the most mature. The more mature IT-business relationships exist, as the alignment gap gets smaller.

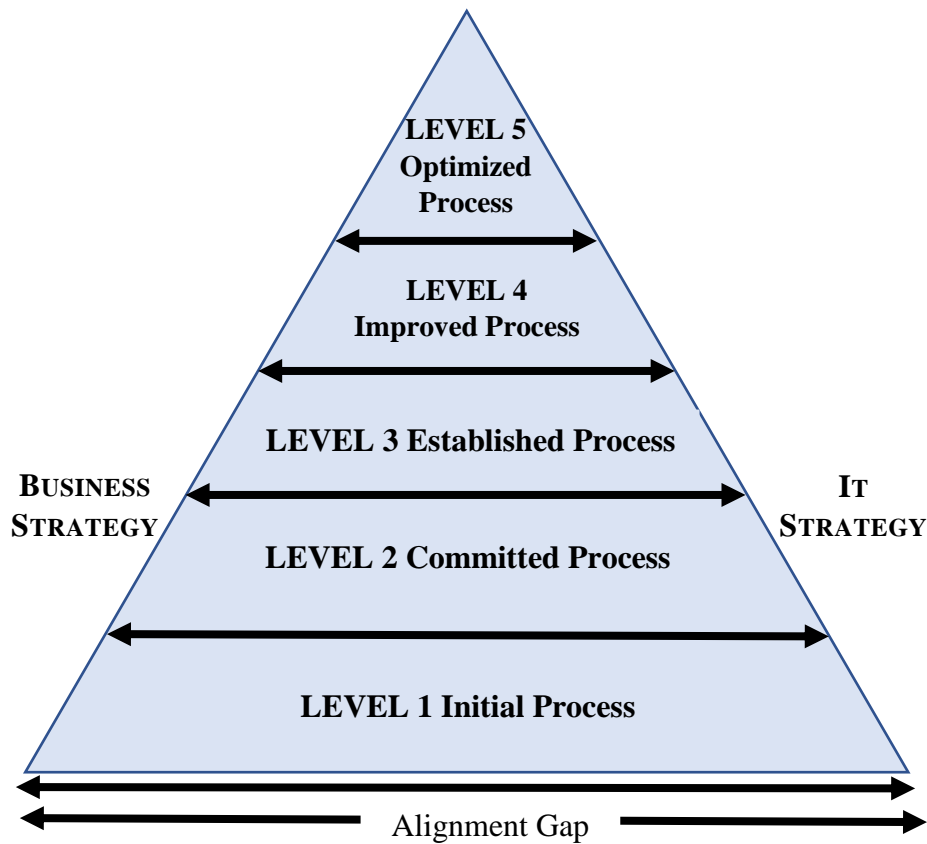


Figure 12. Climbing the Strategic Alignment Maturity Model  
 ( Reprinted from Luftman, 2003 p.6)

There are at least four benefits that enable organizations to identify opportunities for enhancing their IT-Business integration concerning the strategic alignment pyramid shown above in Figure 12. And those benefits are: 1) Provides the first step towards bridging the IT-business gap 2) Allows organizations to measure how well the technical and business organizations work together 3) Allows organizations to see how they are doing compared to other companies and 4) Enables organizations to identify opportunities for enhancing their IT-Business integration (Luftman, 2003).

## 2.9. CRITIQUES UPON STRATEGIC ALIGNMENT

This section address critiques on the study of business-IT strategic alignment. This section addresses about new concepts of strategic alignment.

Ciborra (1997) viewed IS and IT as social disciplines rather than scientific disciplines, which let the researcher to claim about much of the IS and IT world particularly in strategic management, marketing, and academia are in crisis. According to Ciborra (1997) perspective, the approaches developed by Henderson and Venkatraman (1993) to the concept of business-IT strategic alignment do not reflect the reality of managerial practices that can be seen or observed in actual business life and organizational including management practices. Ciborra (1997) viewed the SAM model developed by Henderson and Venkatraman (1993) as an attempt to bridge two extremely unstable variables that are represented in business strategy and IS/IT strategy. Ciborra (1997) argued that, “*alignment as a conceptual bridge, urges us to reflect on the true nature of it shores: management strategy and technology*” (Ciborra, 1997, pp.70). Based on Ciborra (1997) view, there is no observable alignment, nor measurable fit, because strategy is putting different things together to create something, while the technology that refers to IT-Infrastructures tend to “drift”, which is mostly “out of control” as IT is always changing (Ciborra, 1997; Earl, 1992). Ciborra (1997) argued that even if there will be some results of the strategic alignment, the obtained results don’t stay long.

In the same article, “*Deconstructing the concept of strategic alignment*” (Ciborra, 1997), and the researcher’s book “*From Control to Drift*” (Ciborra, 2000), the researcher recommended an alternative approach to address the issue of alignment between strategy and technology in real life business practices and everyday experience, by means of a new language that includes three concepts: care, hospitality, and cultivation, rather than rationalistic models and plans.

- **Care:** it’s about driving by involving in practical implementation and use of IT applications rather than paper based or theoretical assumptions. Caring is nothing but continuous commitment to the practical business life in order to make the business-IT process being familiar with intimacy. These process in the work environment might include users’ training, practical system introduction to users and the like (Ciborra, 2000).
- **Hospitality:** it’s factual that dealing with unpredictable ambiguity is the critical part of this moving part of technology, which is always in a continuous change. So, the concept of hospitality is used to address this uncertainty issues of technology in order to achieve business-IT strategic alignment (Ciborra, 1997; Ciborra,2000).
- **Cultivation:** Ciborra (1997) claimed that there are lots of issues in an organization concerning deceptively clear management, which leads to hide the relationships between strategy and technology. It needs a clear path to pave a way in order to cope

with intricacies of the relationship between strategy and technology. Cultivation is about undermining current strategy and “producing imbalances” with the current level of technology. It’s a process accumulated through a range of time in an unplanned way.

Chan and Reich (2007) on the contrary to the above facts, pointed out some criteria to make meaningful the research related to business-IT alignment (BITA). They have suggested at the first place that the business must always change in order to show tangible benefits from business and IT alignment while IT should often challenge the business. At the second place they (Chan & Reich, 2007) have argued that business and IT alignment is not possible if strategy is unknown clearly. They even claimed that business and IT alignment research cannot capture real life. This thesis considers such valuable views from those prominent scholars.

## 2.10. RESEARCH GAP IN THE LITERATURE

This section reveals and summarizes the business-IT alignment gap in the literature. Business-IT strategic alignment analysis demonstrates that there are three principal school of thoughts on strategic alignment in the literature. Those are: construct nature, operationalization and model (See Table 11).

AUTHORS	CONSTRUCT NATURE	OPERATIONALIZATION	MODEL	
			Model Strengths	Model Weaknesses
<b>Henderson and Venkatraman (1993)</b>	A concept based on strategic fit and functional integration	Four domains of strategic alignments: <ul style="list-style-type: none"> <li>• Business strategy</li> <li>• IT strategy</li> <li>• Organizational infrastructure and processes</li> <li>• IT infrastructure and processes</li> </ul>	Focuses on the nature of IT capabilities and organization designs that enable to exploit the business potential of IT through aligning four dimensions	<ul style="list-style-type: none"> <li>•Conceptual</li> <li>•Lacks diagnostics</li> <li>•Neglects how companies are able to achieve alignment</li> </ul>
<b>Broadbent and Kitzis (2005)</b>	How to weave together business and IT strategies and what related factors influence the success of IT-enabled business projects	Four factors influence alignment <ul style="list-style-type: none"> <li>• A CIO</li> <li>• An executive team with an informed expectations for an IT-enabled enterprise.</li> <li>• Clear IT governance</li> </ul>	A conceptual model discussing elements which provide necessary building blocks for business-IT linkages	<ul style="list-style-type: none"> <li>• Conceptual</li> <li>• Generic</li> <li>• Lacks empirical validation</li> </ul>

		<ul style="list-style-type: none"> <li>• Adopting portfolio management approach.</li> </ul>		
<b>Maes et al. (2000)</b>	Aligning business and IT is a matter of management and of design. The model is derived from a generic framework for information management and an integrated architecture framework	<ul style="list-style-type: none"> <li>• Management (strategy, structure, operations)</li> <li>• Areas of concern (business, information and communication, technology systems infrastructure)</li> <li>• Design</li> </ul>	A unified framework of alignment	<ul style="list-style-type: none"> <li>• Conceptual High level model</li> <li>• Does not examine how companies achieve alignment</li> </ul>
<b>Brown and Magill (1994)</b>	Explores the concept of IS and organizational design patterns of internal and external antecedents	Examining a firm's IS organization design decision for a decentralized, centralized, or hybrid structure	A conceptual framework for IS and organization design and its assessment	<ul style="list-style-type: none"> <li>• Narrow scope focusing on organizational design</li> <li>• Little empirical evidence (N=6)</li> </ul>
<b>Sabherwal and Kirs (1994)</b>	Alignment between critical success factors and IT capability	<ul style="list-style-type: none"> <li>• Environmental uncertainty</li> <li>• Organizational integration</li> <li>• IT management sophistication</li> </ul>	Alignment defined between business factors and IT capability and their impact on overall performance	<ul style="list-style-type: none"> <li>• Empirical study focused on academic institutions</li> <li>• Limited number of alignment variables</li> <li>• Empirically-derived ideal profile of IT capability</li> <li>• Adopted a static view of alignment</li> </ul>
<b>Hussin et al. 2002</b>	The alignment between the contents of business and IT strategies	<p>Three factors influencing alignment:</p> <ul style="list-style-type: none"> <li>• CEO commitment to IT</li> <li>• IT sophistication</li> <li>• External IT expertise</li> </ul>	Exclusively measures the fit between IT strategy and the business strategy	<ul style="list-style-type: none"> <li>• Limited number of alignment factors</li> <li>• Excludes processes associated with IT alignment, such as functional integration, organizational factors, etc.</li> </ul>

<b>Bergeron et al. (2001)</b>	Alignment of strategic IT management, environment uncertainty, strategic orientation and structural complexity	Six 'fit' perspectives: <ul style="list-style-type: none"> <li>• Moderation</li> <li>• Mediation</li> <li>• Matching</li> <li>• Covariation</li> <li>• Profile deviation</li> <li>• Gestalts</li> </ul>	Describes how different conceptualizations and analysis methods of fit lead to different results	<ul style="list-style-type: none"> <li>• Small sample size N=110</li> <li>• No theory foundation</li> </ul>
<b>Reich and Benbasat (1996)</b>	Analyze the social dimension of business-IT alignment	<ul style="list-style-type: none"> <li>• Cross references between written business and information technology plans</li> <li>• IS and business executives' mutual understanding of each other's current objectives</li> <li>• Congruence between IS and business executives' long-term visions for information technology deployment</li> <li>• Executives' self-reported rating of linkage</li> </ul>	Provides a scheme that shows different ways of conceptualizing and identifying short- and long-term aspects of the social dimension of alignment	<ul style="list-style-type: none"> <li>• Limited only to the social dimension of alignment</li> <li>• Very small data sample: 10 business units in only one industry - life insurance</li> </ul>
<b>Gerow et al 2014</b>	Meta-analysis of effects of alignment on firm performance	<ul style="list-style-type: none"> <li>• Three domains (internal, cross-domain, external) of integration</li> <li>• Intellectual and operational alignment</li> <li>• Three domains of effect: financial performance, productivity, customer benefit</li> <li>• Contextual variables of <ul style="list-style-type: none"> <li>-Turbulence</li> <li>-strategy type</li> <li>-governance</li> <li>-social alignment</li> <li>- IT investment level</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Extensive and systematic analysis of 71 studies of impact of alignment on performance</li> <li>• Alignment dimensions are highly correlated</li> <li>• Alignments dimensions have</li> <li>• Positive effect on performance – most consistent for productivity and financial performance</li> <li>• Contextual variables influence</li> <li>• The level of alignment</li> </ul>	<ul style="list-style-type: none"> <li>• Static view of alignment dimensions</li> <li>• Rough and often poorly developed scales for alignment dimensions</li> <li>• Only few studies looked at operational or cross-domain integration which is often critical for value creation</li> </ul>
<b>Luftman (1996)</b>	Alignment is concerned with relationships among the twelve components that define business-IT alignment	Twelve alignment components: Business Scope, Distinctive Competencies, Business Governance, Organization Infrastructure and Processes, Administrative Structure, Organization Infrastructure and Processes: Skills, Technology Scope, Systemic Competencies, IT Governance, IT Infrastructure and Processes, IT Infrastructure and Processes Architecture, IT Infrastructure and Processes Skills	<ul style="list-style-type: none"> <li>• Provides practical method of improving alignment (“rules of thumb”)</li> </ul>	<ul style="list-style-type: none"> <li>• Lacks a theoretical basis (the process leading to alignment and how to measure alignment)</li> <li>• Ignores relationships between 12 components</li> </ul>
<b>Luftman et al. (1999)</b>	Identifies functional areas that promote or hinder alignment of IT plans with business plans	Enablers: Senior executive support for IT, IT involved in strategy development, IT understands the business, Business - IT partnership,	The areas identified as enablers and inhibitors are viewed to be common across industries, business functions, and across time.	<ul style="list-style-type: none"> <li>• Lacks stronger a theoretical basis</li> </ul>

		Well-prioritized IT projects, IT demonstrates leadership		
		Inhibitors: IT/business lack close relationships, IT does not prioritize well, IT fails to meet its commitments, IT does not understand business, Senior executives do not support IT, IT management lacks leadership		
<b>Rusu &amp; Alaceva (2012)</b>	Identifying and investigating the barriers that inhibit achieving social dimension of business IT/alignment	Barriers: Low understanding of counterpart's environment, poor communication, unclear specifications, limited cooperation, lack of mutual commitment	Focuses on the social dimension that enable to mitigate social barriers to achieve a better business/IT alignment	<ul style="list-style-type: none"> <li>• Limited only to the social dimension of alignment</li> <li>• Very small data sample: Five IT executives and two business executives in only one industry</li> </ul>
<b>Abudelselam (2016)</b>	Assessing the maturity level of business-IT strategic alignment	Factors influencing alignment		<ul style="list-style-type: none"> <li>• The research doesn't have its own conceptual framework/model</li> </ul>
<b>Amare (2013)</b>	Identifying the impact of IT and business strategy alignment on organizational performance	Measure the level of IT and business strategic alignment Compare the intensity of capital investment for information technology		<ul style="list-style-type: none"> <li>• The research doesn't have its own conceptual framework/model</li> </ul>

*Table 11.A Review of Alignment Research and Measures  
(Adopted with modification from Luftman, 2017)*

This thesis paper confirms from Table 11 shown above that there are two major gaps in general that can be extracted out from related literatures. The first one confirms that business-IT strategic alignment gap is less explored. Analysis of our research based on the interview and observations from IT and business directors inside the case study organizations proves that there is a gap between business strategy and IT strategy.

The second gap is pointing to the importance of known enablers and inhibitors that help and hinder alignment has been investigated largely in the context of developed country (United States of America). Making the generalizability of the rank order of the six most important enablers and inhibitors (Luftman & Brier, 1999) in developing country (Ethiopia) is uncertain. Furthermore, while there is plenty of evidence that competitive strategic alignment on firm performance are well-documented in the context of developed countries (U.S. and Canada), the

validity and applicability in other countries are uncertain and has not been studied before (Hu & Yayla,2012).

Thus, this thesis paper is dedicated to explore the strategic alignment gap (SAG), which is unexplored well via previous related researches as we have discussed previously. It leads to successful strategic alignment in the context of bridging the gap between business strategy and IT strategy in the selected organizations of a developing country (Ethiopia).

## **2.11. CHAPTER SUMMARY**

The main driving force of writing this chapter was to present a theoretical basis for the empirical research of this research paper as per the valuable input from previous related literatures. The chapter was separated into four main sections. The first part explained about the research literature process, addressed the proposed guideline. The second part discussed about definitions of alignment. It was explained all the terms and scholarly accepted definitions of alignment. The third part dealt with the concept of strategic alignment, emphasized on strategic alignment gap (SAG) via assessing several alignment models from different researchers. The fourth part reviewed specific related researches and identified the gaps in the literature in order to configure philosophical assumption and conceptual understanding of business-IT strategic alignment gap.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. OVERVIEW**

Kothari (2004) pointed out that “*research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically*”. In that regard, this thesis paper studies the various steps to study the research problem in detail along with the logic behind them. This chapter outlines the research methodology that was used to carry out the study, what informed the selection of the design, the target participants, sampling method used, data collection technique and how data was analyzed, interpreted and presented. The chapter also culminates with a brief summary.

#### **3.2. THE RESEARCH METHODOLOGY AND CASE STUDY APPROACH**

##### **3.2.1. QUALITATIVE RESEARCH METHODOLOGY**

It has been noted that some writers use the terms ‘methodology’ and ‘method’ interchangeably (McGregor & Murnane, 2010). They consider that methodology refers to the overall approach taken, as well as to the theoretical basis from which the researcher comes, and method is the various means by which data is collected and analyzed (Dawson, 2002). In line with these writers’ concept, the approach taken here is to include all facets of the research process under the overall heading of qualitative research methodology. Therefore, the research design, the approach taken, the particular data collection methods chosen and the means of analysis, are all considered to be part of this study’s methodology, and are set out in detail.

Yin (2009) explains that qualitative research is an event for growing new ideas. He clarified about qualitative research as the decent variety of approach, as a result of its importance to various disciplines and professions, challenges anybody to arrive at a brief definition. Given that this research planned to distinguish the primary hindrances and develop profound learning and understanding identified with difficulties of business-IT strategic alignment experienced by business and IT experts. It was thus appropriate to settle for qualitative approach. Besides, complex organizational, managerial and business phenomenon cannot be studied appropriately with quantitative research methods due to several limitations associated with such methods

(Eriksson & Kovalainen, 2008). Qualitative case study is certainly the most fitting procedure for our case since this research thesis is contemplating complex business phenomenon. Qualitative research is most appropriate to address a research problem in which little is yet known and need to investigate (Creswell, 2012).

In spite of the fact that the strategic alignment gap states to a critical term in business-IT strategic alignment concept, it has not been exhibited expressly. So that the concentration in this thesis is to recognize and depict this idea and to concentrate upon the inquiries of intending to comprehend the reasons for what purpose does the alignment gap exist between business strategy and IT strategy.

Qualitative research method is more appropriate than quantitative research method, as the former is expected to enable researchers to comprehend individuals' considerations and the social and cultural settings within real life (Yin, 2009). The other important part of qualitative research method is the capability of recording actual words and dialects of the participants. It's a trustworthy method for gathering data since this research paper is interrelated to human state of mind and conduct towards participants' concept of business-IT strategic alignment. The method is used to allow participants to express their opinions naturally and straightforwardly.

Quantitative research fails hopelessly in examining socio-mental phenomenon (Yin 2009). Moreover, quantitative research has different inadequacies in investigating phenomenon involving social and cultural aspects. In this respect qualitative research is vastly improved to uncover reality than quantitative research. Qualitative research is a powerful tool to grasp reality in particular setting, to be specific sociocultural setting.

Given the way that both business strategy and IT strategy should aim to fulfill a similar business goals. Obviously strategic alignment gap can be seen in strategic action made by both business managers and IT executives. If these activities are not reliable with each other, the management practices by both business managers and IT executives are taken independently which makes the alignment gap between business strategy and IT strategy. The fundamental point of this research is to gain a superior comprehension of these issues concerning the business-IT strategic alignment gap mainly in the case of Company-A.

The other vital reason that has to be mentioned here is the reason why we select Company-A as a case study. Yin (2009) recommended that the reason why a researcher select a case company can determine the output from the study. Our study follows this way of selecting case organization based on the scholarly view of Yin (2009) that is used to signify the reason why

a researcher chooses a firm or Company-A as a case study. In that regard Company-A was selected to do this research since the company had an earlier history of solid business-IT strategic alignment and couldn't claim to experience the ill effects of “boundaries to strategic alignment” (Company-A, 2017).

### **3.2.2. CASE STUDY APPROACH**

Robson (2002) defines case study as “*a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence*”. In addition, Yin (2009) highlights that a case study is an empirical inquiry that explores a contemporary phenomenon top to bottom and within its real-life. Case study emphasizes detailed contextual analysis of a limited number of events or conditions and their relationships (Nelson M., Peterson, Rariden, & Sen, 2010). In that context this investigation is exploratory in nature as there has been limited earlier research that has inspected the strategic alignment gap from the point of business-IT strategies in general and across financial sector in particular. At the same time exploratory case study procedure is accepted to be reasonable with a specific end goal to discover what is occurring and to search for new perceptions. As the name recommends, exploratory researches try to investigate what is going on and to make inquiries about it. Exploratory researches are especially valuable when insufficient is thought about a phenomenon (Gray, 2004).

To address the research questions and achieve the investigation's objectives, a case study methodology approach was used in the research design. In this present investigation, the case study approach was justified, as endeavoring to realize the challenges that impact on accomplishing successful strategic alignment from business unit towards IT unit and vice versa. Yin (2009) demonstrates how case study research constitutes a widely inclusive strategy that covers the logic of design, data collection techniques, and particular ways to deal with data analysis. Eisenhardt (1989) pointed out concerning contentions that theory development and the understanding of phenomena can be accomplished using a case study approach. Case studies have been a popular research method in the area of information systems. This research method has enabled researchers to benefit from the knowledge of practitioners and has resulted in theories that are empirically valid (Nelson et al., 2010).

Yin (2009) and Stake (1995) utilize distinctive terms to depict a variety of case studies. Yin orders case studies as explanatory, exploratory, or descriptive. He additionally separates

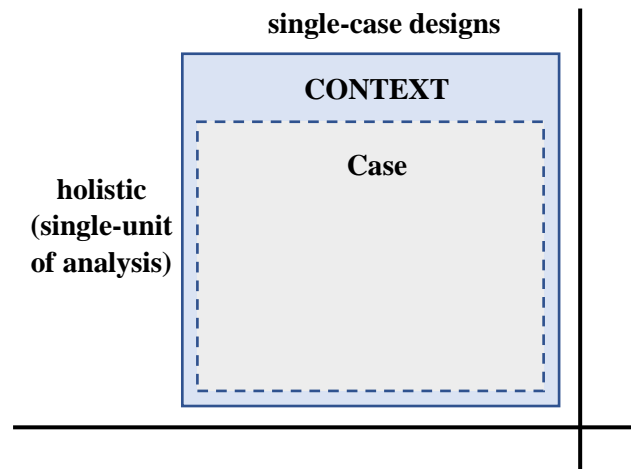
between holistic and embedded designs. Stake distinguishes case studies as intrinsic, instrumental, or collective.

Yin (2009) discusses in detail about the two types of case studies through partitioning in to four types of designs based on a 2X2 matrix. Most of the literatures and books that we have traced in relation to the stream of case studies are only categorized case studies in to two parts as holistic or embedded studies without clearly discussed about the four types of designs under the two categories. Whereas Yin (2009) elaborate and distinct case study designs in a better perspective as (Type 1) single-case (holistic) designs, (Type 2) single-case (embedded) designs, (Type 3) multiple-case (holistic) designs, and (Type 4) multiple-case (embedded) designs.

There are two variants under single-case (Type 1 and 2) designs. Those using holistic designs examine the case as single unit of analysis under single-case designs and those using embedded designs examine the case as multiple unit of analysis under single-case designs. With this in mind, there are about five rationales or representation of cases (such as a critical set of existing theory, a rare or unique circumstance, a representative or typical case, revelatory and longitudinal purpose) concerning single-case design. At the same time there are also two variants under multiple-case (Type 3 and 4) designs those using holistic designs examine the case as single- unit of analysis under multiple-case designs and those using embedded designs examine the case as multiple units of analysis under multiple-case designs. In this regard, rationales for multiple-case designs are to do comparative studies, to consider multiple cases, and to do cases where there are only instructional applications are present. In brief the rational for multiple-case designs arises straightly from your understanding of literal and theoretical replications (Yin, 2009).

This research falls under holistic (single unit of analysis) within single-case design (see Figure 13). The primary reason why the research employed single case design is because of the uniqueness of the topic of the study as explained in the literature review (Chapter 2: Literature Review) in detail. Yin (2009) confirmed this fact as the second rationale for a single case where the case represents an extreme case. In this regard, Company-A is exceedingly associated with business-IT strategic alignment and it is a decent exemplary as a financial sector that is exceptionally relying upon information technology(IT).Moreover, Company-A was a solitary branch bank for nine years (2008-2017) with remarkable financial strategy as confirmed by Director-1 and Director-6 during our interview session that 100,000,000 Birr investment on IT department in the year 2017 and 2018.The other reason for a single case study chosen in light

of the fact that the case under investigation is both an exceptional case or potentially one of a kind conditions, and a life-case (Yin,2009).



*Figure 13. Single case design for case studies  
(Adopted with modification from Yin, 2009 p.46)*

### **3.3. RESEARCH DESIGN**

Research design is a blue print for any studies, dealing with at least four problems: what question to consider, what data are significant, what data to gather and how to analyze the outcomes (Saunders et al.,2009). In addition to this sound definition, Yin (2009) highlights research design briefly as the general procedure of how you will approach about your research questions. It's the logic that links the data to be collected and the conclusion to be drawn to the initial questions of the study. This is the main point where our research thesis encompasses about. In such manner, next we will discuss in detail about the center segment of research design, which are the unit of analysis, the relevant data collection and the way how to analyze the result.

#### **3.3.1. UNIT OF ANALYSIS**

The unit of analysis is the basis to the fundamental problem of defining what the case is. It may be an individual person (such as a business leader, or someone who has an experience of interest), or an event/entity (such as a decision, a programme, an implementation process or organizational change), or an organization or team or department within the organization (Yin,

2009). The unit of analysis is an important component that must be considered in any research design. Without a clear design of the unit(s) of analysis, the researcher would not be able to limit the boundaries of the study (Pare, 2004).

To clarify in brief, the unit of analysis is one of the critical issue that has to be addressed well in the research design, especially in the case study research. This research paper employed a good example illustrated by Yin (2009) in order to show how a unit of analysis extract out from a case study. Yin (2009) explains as an example a study by someone about the role of the United States in the global economy. In order to extract out unit of analysis for this case study similar theoretical framework studies have to be assessed. In this regard, Drucker (1986) essay, not a case study, about fundamental changes in the world economy, including the importance of “capital movements” independent of the flow of goods and services used can be selected. So that the unit of analysis for this example might be a country’s economy, an industry in the world market place, an economic policy, or the trade or capital flow between countries.

On the basis of the example discussed above this research paper reviews several peer-reviewed literatures that can be taken as a similar theoretical framework. In the context of this concept our research study uses the works of Yayla & Hu (2012) and Rusu & Gabangou (2016) as a similar theoretical framework. Thus, the primary unit of analysis for this research paper is an implementation process of bridging strategic alignment gap (SAG) in the case organization as a whole and the smallest unit is the individual staff.

### **3.3.2. THE RESEARCH SAMPLE**

*“In qualitative research, the samples are likely to be chosen in a deliberate manner known as purposive sampling”* (Yin, 2011). In this regard, a purposeful sampling procedure was used to select the study’s sample. To yield the most information about the phenomenon under study, purposeful sampling is a method that is typical of case study methodology (Saunders et al.,2009).

The purposive sampling technique is followed by this thesis study, which is highly recommended for qualitative case study research (Neuman, 2003), in order to identify key participants within the business and IS departments. The sample was developed on the basis of predetermined eligibility criteria of respondents from both business and IT departments. The basic eligibility criteria were that the professional should have a minimum of four years of

experiences and have a high-level of position. A delimiting time frame of four years was decided by the researcher to ensure adequate experience in IT and/or business management jobs.

The purposive sample in this study consists of directors of departments, managers and officers, because they are directly involved in Company-A business-IT strategic alignment. It has a great impact to empower participants towards bridging the gap between business strategy and IT strategy.

### **3.3.3. METHODS OF DATA COLLECTION**

Qualitative researchers are worried about the validity of their communication. To reduce the likelihood of misinterpretation, this thesis paper utilizes different systems, including redundancy of data gathering and procedural difficulties to clarification. These techniques, called triangulation, are considered a process of using multiple perceptions to clarify meaning (Yin, 2009). Remember that the utilization of multiple methods for data collection to achieve triangulation is vital to acquire and considered a process of using multiple perceptions to clarify meaning. There are several methods used in qualitative research to choose from: semi-structured interviews, structured interviews, summative focus groups, document review, observation, and critical incident reports.

### **3.3.4. INTERVIEW PROCESS**

The researcher of this thesis labor to get major insight how a research in the area of business-IT strategic alignment should be investigated in developing countries (for instance, Ethiopia). What the peer-reviewed literatures (for example, Rusu & Gbangou, 2016 and Yayla & Hu, 2012) infers and what the developing countries' research papers whether published or unpublished one (for example Abudelselam, 2017; Amare, 2013 and Bogale, 2016) implies are totally different. The peer reviewed literatures confirm that the business-IT strategic alignment in the context of developing countries is at the ground level and less explored (Yayla & Hu 2012, Rusu & Gbangou, 2016). On the contrary the researchers from developing countries claim that the business-IT strategic alignment is advancing in a good way (Amare, 2013 & Abudelselam, 2017).

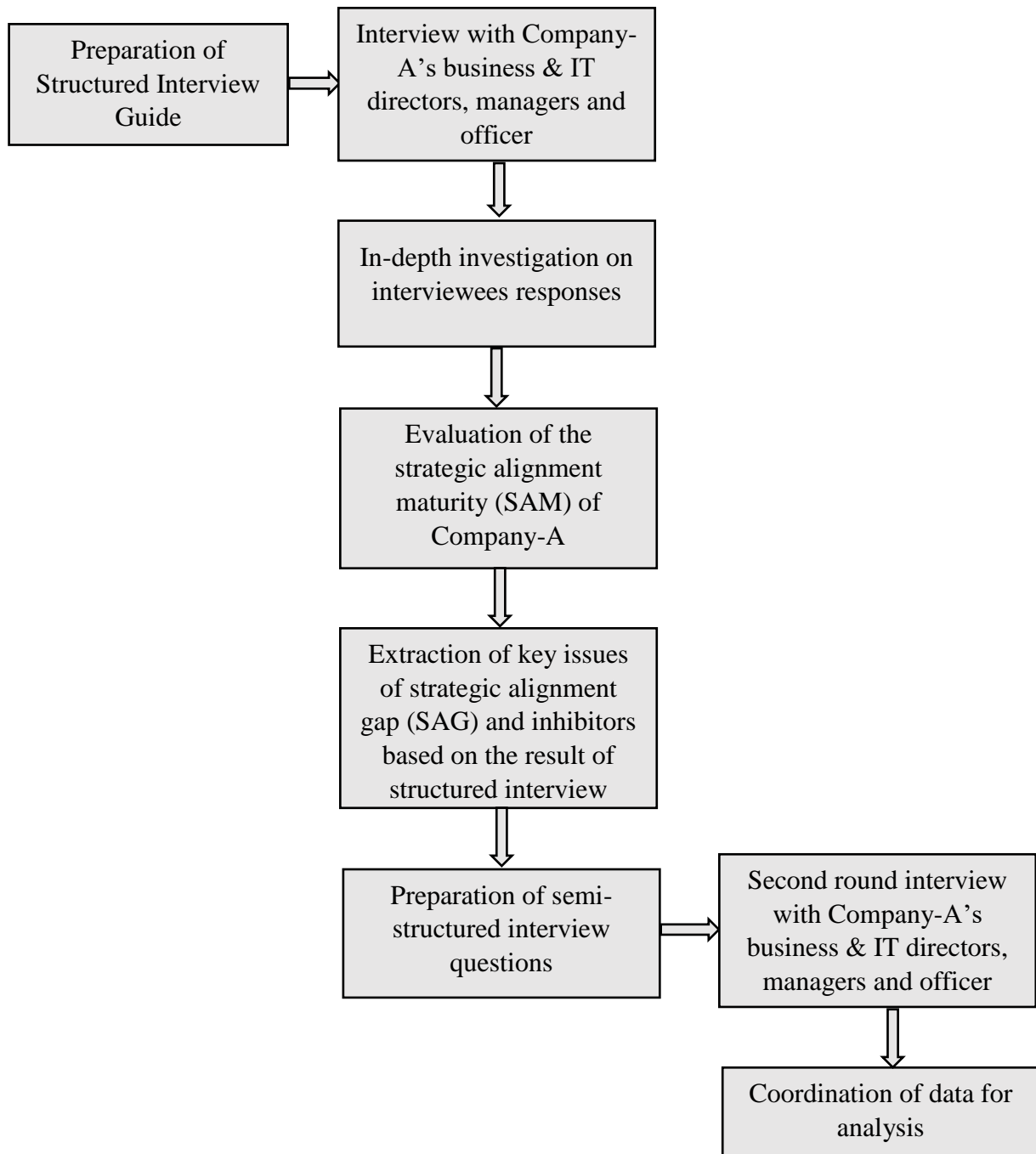
Given that the reason, the researcher of this thesis devotes full time in order to make this paper the subject of a benchmarking study on the merits of continued investigation on business-IT

strategic alignment particularly in the context of developing country (Ethiopia). To make this happen in reality, this research paper employed both structured and semi-structured interviews in order to get information and evidences from multiple sources (Yin, 2009; Patton, 2002).

The structured interview has paved a way to detect the existing Company-A's maturity level of strategic alignment. It includes 39 questions and categorized under the six maturity criteria of alignment (see Figure 7). The adopted structured interview questionnaire from Luftman (2017) has been modified for the convenient of both interviewer and participants (see Appendix-C). Duration of the interview session was 115-120 minutes. The study has got major insights from the structured interview in order to locate where the alignment gap came from. In this regard we have prepared another interview session on those critical points that has to be explored well based on the selected areas from participants respond of the structured interview.

The semi-structure interview conducted in March, 2018 after thorough investigation of the structured interview, which was conducted in January, 2018. The semi-structured interview is mainly used to investigate the existence of business-IT strategic alignment gap in the selected case company. And used to search about factors to hinder and/or enable business-IT strategic alignment. The duration of the semi-structured interviews with participants varies from 85-90 minutes (see Table 13). The semi-structured interview questions have prepared based on the strategic alignment concepts of Luftman & Brier (1999) and Chan & Reich (2007) after extracting out major areas of business and IT strategies from the structured interview. The semi-structured interview session allows participants to express their understanding and opinion freely.

The semi-structured and structured interviews (see Figure 14) are the foundation for the empirical based study of this research paper. Generally empirical based study is a dominant span in the research of scientific study (Yin, 2009). In order to make the research empirical-based, the study's theory has to be equipped with solid empirical evidence. In that regard this study is well equipped with empirical evidences on top of the theoretical based concepts. The case study analysis in Chapter Four is the result of these real-world and empirical based data collection methods. All the results in the case study analysis are extracted out from these multiple sources of evidences.



*Figure 14. Interview process of the research to reach multiple sources*

### **3.3.4.1. SEMI-STRUCTURED INTERVIEW**

This section explains the empirical data collection method used in the thesis on a practical level. The aim of this section is to cover the actual execution and usage of the method. This is necessary for reader to be able to interpret the findings of the research and to understand what the conclusions are based on. In this regard, the section presents and considers a method of analyzing and presenting textual and recording data during qualitative work of the study.

The semi-structured interviews (see Appendix-B) are first conducted with IT and business department directors directly involved in the business-IT strategic alignment. The purpose and objective of the interview (see Appendix-A) has been notified to all interviewees through their corporate and personal email address. In these interviews, a detailed description of the various business-IT alignment gaps is pursued and the enablers and inhibitors for strategic alignment are investigated based on the participants' own experiences and viewpoints. Then, interview is conducted with a broader range of directors, managers and officers who are managing and deciding on the implementation of business-IT strategies (see Table 12).

In opinion of Yin (2009) the interviewed persons should be related directly on the research topic as well as be familiar in the area of the research. The main research semi-structured interview questions elaborate in detail and developed (Appendix-B) to determine the gap between IT strategy and business strategy that are used to help or hinder strategic alignment. Finally, the researcher attempts to understand the perspectives of the IT and business departments' directors on the strategies about business-IT strategic alignment in general, and bridging the strategic alignment gap in particular.

Interviews are conducted in the interviewees' offices and in the Company-A's meeting room, which facilitated the consultation of relevant documents if the interviewee needed to check details or share related materials. The interview questions deduced and prepared based on the concepts Chan & Reich (2007) and Luftman & Brier (1999).

The interviews varied in length from 1:25 hours to 2:00 hours. The participants did not wish to be recorded on tape, but they are willing to be recorded through the researcher's mobile phone towards the benefit of the researcher in order to get and cross check the whole interviewees' reply. All the participants are willing to disclose their name and job roles. During the interview, notes are taken attentively so that a complete and accurate record of conversation can be obtained.

Given that this research aimed to identify the main strategic alignment gaps. It's used to develop deep knowledge and understanding related to challenges of business-IT strategic alignment experience business and IT professionals' perspectives. It was thus appropriate to settle for qualitative approach. The selected case research paper was applied to investigate how a successfully acclaimed Ethiopian based financial sector detect and manage structures, processes, and relational mechanism to achieve and sustain successful strategic alignment, how the executives and top-level managers view these challenges, to what extent they face them in their day-to-day activities and how they try to attain them.

#### **3.3.4.2. STRUCTURED INTERVIEW**

Kvale & Brinkmann (2009) pointed out that the possibilities of data collection through structured interviews in the case of qualitative research. Moreover, Yin (2009) and Patton (2002) suggested that an interview within a case study can take the form of a structured interview as it is used in survey research, where the respondent is asked to respond to a fixed set of closed questions. Thus, any case study finding or conclusion is likely to be more convincing and accurate if it is based on triangulation (for instance, structured interviews, focus interviews, observations, documents, archival records, open ended interviews) or several different sources on information (Yin, 2009). The primary concern of using structured interview by this research paper is to getting the existing maturity level of Company-A's strategic alignment. At the first place the existing Company-A's maturity level of strategic alignment must be detected before bridging the gap between business strategy and IT strategy.

This research paper adopted the Luftman (2017) business-IT strategic alignment maturity assessment questionnaire. The questionnaire (see Appendix-C) is used to assess the Company-A's existing maturity level of strategic alignment based on SAM's six dimensions. Luftman (2017) recommended to use over 80% of the questionnaire as an interview guide. This research paper modified the questionnaire as an interview guide (see Appendix-C). In fact, in January, 2018 the researcher of this study distributed the original questionnaire (Luftman,2017) for two IT department's director and for one business department's director as a pilot test of the questionnaire. After collecting the questionnaire, we were conducting face-to-face interview with those participants. The result that we got from the interview and the answer on the questionnaire are totally different. So, in this case we have decided to do the research's data collection method only using face-to-face interview. That is why designing and piloting a

questionnaire is used to help a researcher in order to focus on the techniques that are most appropriate to a research paper (Saunders et al., 2009). Moreover, establishing facts with invalid and untruth reply on the questionnaire from participants will lead us in to infeasible conclusion. This was the primary reason why we decided to do the research data collection method using face-to-face interview.

The structured interview format has six categories with 39 questions under each category. The questionnaire is used to measure the level of effort that the organization expends in that specific activity using a 5-point Likert-scale. The level of each activity is further expected to be assessed by the IT and the non-IT executives to ensure a common valuation and rating of that activity level.

### **3.4. INTERVIEW EXECUTION**

Both semi-structured and structured interview suits the goal of the thesis best. For this reason, face-to-face interview and observation was selected as the empirical data collection method. It is obvious that in this thesis highly structured and semi-structured interview approach might yield the best results. Business and IT alignment is a fairly abstract subject and even though it has many models with specific criteria for success (for example, Sabherwal & Chan, 2001 and Henderson and Venkatraman 1993), these criteria can be hard to pointed out explicitly. Thus, semi-structured methods are more suitable for this particular concept of our study.

Semi-structured interview can be defined as specific questions already predetermined that are asked to the respondent in a particular order, or topics and issues to be covered in the course of the interview (Zegeye, Worku, Tefera, Getu, & Sileshi, 2009). Dawson (2002) pointed out that semi-structured interviewing is perhaps the most common type of interview used in qualitative social research. In this type of interview, the researcher wants to know specific information which can be compared and contrasted with information gained in other interviews.

(Saunders et al.,2009) pointed out that structured interviews use questionnaires based on a prearranged and matching set of questions. It refers as interviewer-administered questionnaires. We read out each question, explain to the interviewer about the concept of the interview using

local language (Amharic<sup>3</sup>) and then record the response on a standardized schedule, usually with pre-coded answers as prescribed on Appendix D.

<b>Respondents Category</b>	<b>Number of Respondents</b>
Directors	10
Managers	3
Officers	1
<b>Total</b>	<b>14</b>

*Table 12. Interviewees Distribution across their hierarchy*

### **3.5. OBSERVATION**

In this research paper, a participant technique is adopted as the researcher is a participant which is categorized under the division of observer as participant. This would present the advantage of a researcher being able to focus on researcher's role. For example, a researcher would be able to jot down insights as participants occurred to him (Saunders et al.,2009). The researcher observed important business-IT alignment issues, complex interactions between IT and business departments.

In participant observation, the researcher is totally involved and turn out to be a participant in the setting being observed (Collis & Hussey, 2009). Detailed notes are taken in which the participants' guidelines, conversations, tool usage, and use of documents and other work artifacts are all noted. The collected data through observation is used as additional to complement data obtained through semi-structured and structured interviews.

### **3.6. DOCUMENT ANALYSIS**

Yin (2009) pointed out that the most essential utilization of documents is to verify and increase prove from different sources. To start with, documents are useful in checking the right spellings and titles or names of organizations that may have been specified in an interview. Second, verifying the documents can give other particular points of interest to support information from different sources. In addition, they can be used to help to triangulate findings based on other

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<sup>3</sup> One of Ethiopian working languages. The only language in Africa that has its own letters and numbers. Available at: <http://english.cntv.cn/program/newsupdate/20130402/102321.shtml> [Accessed 7 May. 2018]

data, such as written documents and primary data collected through observation, interviews or questionnaires (Saunders et al.,2009). Because of their overall value, documents play an explicit role in any data collection in doing case studies (Yin,2009).

In this study, different kinds of recorded data are collected to provide information for the benefit of bridging the strategic alignment gap between IT and business strategies. Available, documents of IT Strategy and service level agreements are collected. Document analysis was used to reinforce the analysis by referring different documents of Company-A. Some of the documents that were analyzed include: Company-A annual reports, IT sub-strategy, and organizational structures. Meeting minutes, and organization charts are also acquired. The documents are generally used to verify the participants' factual statements obtained in semi-structured interviews. The document analysis enabled the researcher to double-check regarding particular issues and important dates.

### **3.7. ANALYSIS OF DATA**

We have discussed in detail how data were collected through the methodology of case study. Consequently, this research paper adopted qualitative content analysis technique for the semi-structured interview in order to address participants' perspectives and attitudes. And the study also employed Luftman (2003) data analysis tool for the structured interview. The analysis of the structured interview data obtained from participants in Company-A was analyzed through the six business-IT alignment criteria. This data analysis tool has been successfully tested at more than 50 Global 2000 companies and is currently the subject of a benchmarking (Luftman,2003).

Fourteen in-depth interviews were undertaken with both business and IT departments' directors, managers and officer of Company-A. Augmentation of interview data with the help of observation and document analysis became the back bone of the analysis in order to extract out rich collection of data.

### **3.8. THE RESEARCH VALIDITY AND RELIABILITY**

These two ideas (validity and reliability) build up the premise on which different analysts should see a bit of research as knowledge that can be absorbed into the information base of a field of study. In addition to this concept Yin (2009) pointed out that no matter what specific

analytic strategy or techniques have been chosen, you must do everything to make sure that your analysis is of the highest quality.

This research paper adopted the four tests method designed by Yin (2009) to establish validity for this research concerning case study of the selected case company (Company-A). Yin (2009) has put forward four tools or four tests that can be used by qualitative researchers to analyze and demonstrate the quality of their work. The first test is construct validity and it utilizes multiple sources of evidence and establishes link between various sources during data collection phase. The second test, internal validity matches pattern, develops credible explanations, takes opposing explanations into account and relies extensively on various models of logic. And it is conducted during data analysis phase. The third test is external validity, usually used in research design phase and makes use of theory in single case studies. The final test is reliability, employed during data collection phase and involves building a database for case study and employs various case study protocols (Yin,2009).

This research paper employed the context intended by Yin (2009). And began the research by familiarizing ourselves with academic literature and business journals related to business-IT strategic alignment. Furthermore, we applied extra caution at all phases of research and avoided making steep generalizations and assumptions in the absence of concrete evidence that supports such assumptions. Finally, we developed a database using NVivo 12.0 version as the fourth and final test method recommended by Yin (2009). And stored all data systematically in multiple locations like note book, smart phones, email, and blog site of this thesis paper (i.e.: <http://www.alignmentgaps.wordpress.com>).

### **3.9. CHAPTER SUMMARY**

This chapter explained the methodological approach behind the thesis. The methodology and the methods used in the research have been introduced in detail. Those sections listed under this chapter clarified to the reader the steps behind choosing the methods and approaches. The chapter diligently find out ways to capture concepts and arrived to an efficient approach that have the depth and richness of information throughout the investigation.

This chapter has shown how the qualitative approach enabled the researcher to subordinate more closely with the participants. It has been clarified clearly that the decision of selected a single case study methodology is the most suitable strategy for the investigation. At last this

chapter explained in depth about the reason why the research paper adopted the four tests method in order to establish validity and reliability of the research.

## CHAPTER FOUR

### CASE STUDY: ANALYSIS, FINDINGS, INTERPRETATION, MODEL DEVELOPMENT AND DISCUSSION

#### 4.1. OVERVIEW

The previous chapter examined and justified the adopted research methodology employed by this research paper. The expectation of this part is to exhibit the discoveries from the investigation of the case study analysis. In light of the case descriptions, procedure proposed by (Yin, 2009), this research paper examines here the levels and story of strategical business-IT alignment in the selected case organization known as Company-A. As noted in the previous chapter, the research investigation was approached via adopting a single case study. Consequently, the researcher attempted to understand this phenomenon in terms of the meanings the participants bring to them based on their actual experiences in various business and IT strategies (see Table 13).

Code	Group	Structured	Semi-
		Interviews	Structured
		Duration	Duration
Director-1	Business	120 minutes	90 minutes
Director-2	Business	110 minutes	90 minutes
Director-3	Business	112 minutes	85 minutes
Director-4	Business	120 minutes	90 minutes
Director-5	Business	115 minutes	80 minutes
Director-6	Business	120 minutes	90 minutes
Director-7	IT	120 minutes	90 minutes
Director-8	IT	120 minutes	90 minutes
Director-9	IT	120 minutes	90 minutes
Director-10	IT	120 minutes	90 minutes
Manager-1	Business	120 minutes	90 minutes
Manager-2	Business	120 minutes	90 minutes
Manager-3	Business	120 minutes	90 minutes
Officer-1	Business	120 minutes	87 minutes

Table 13. Interviewees list and their short role descriptions

## 4.2. CASE STUDY ANALYSIS

The following section provides detailed analysis and descriptions of the case. The descriptions are developed mainly from the investigation of the data obtained from semi-structured interviews, observations and document analysis.

The case analysis follows, the research questions and specific objectives of the study, by giving a brief outline on business-IT strategic alignment gap, as outlined in Table 14.

No	Outline
1	Business-IT Strategic Alignment Gap <ul style="list-style-type: none"> <li>• Driving force for Business-IT Strategic Alignment</li> </ul>
2	Factors Influencing Successful Business-IT Strategic Alignment (Research Question 1 & 2) <ul style="list-style-type: none"> <li>• Strategic Alignment Enablers</li> <li>• Strategic Alignment Inhibitors</li> </ul>
3	Process to bridge Strategic Alignment Gap (Research Question 3) <ul style="list-style-type: none"> <li>• Strategic Alignment Dimensions based on SAM</li> </ul>

*Table 14. Alignment of case analysis*

## 4.3. BUSINESS-IT STRATEGIC ALIGNMENT GAP

According to the research participants' feedback, Company-A's IT department had decided to implement its IT strategy without alignment of the business department strategy for multiple objectives. The major reasons are, the business department had the incapacity of articulating the necessary requirements to the IT department, and the IT department lacked the ability to execute the articulating requirements from the business department. Consequently, implementing business department's need as per IT department's understanding found to be the ideal platform of IT strategy. These issues create an alignment gap between what the business wants and what is delivered by IT. Sometimes IT deliverables meet all the set requirements and pass all tests, but are not yet usable for the business. Not surprisingly, remarks were made during the interviews that the requirements process needs improvements as shown in Figure 15. These all primary driving force for business-IT strategic alignment are considers

in this research thesis. And evidences used to prove this concept from participants during the interview sessions explained as follows:

*“Let me list you the main reason why business-IT strategic alignment gap has happened in our organization. Firstly, the IT department doesn’t understand the business well. The IT department is always trying to focus only on IT based systems without first understand the business need in detail. secondly, the IT department forced us to use a system that we don’t have any clue about it at all. Thirdly, the IT department don’t have full knowledge about most of the features in the existing core banking system that might lead the system to expire without even using some features at all. Finally, business-IT strategic alignment gap has occurred mostly when the business department are articulating system requirements to IT department.”*

[Director-1]

*“Business-IT strategic alignment gap has been the main challenging issue in our organization in the last few years. The strategic alignment gap has been revealed mostly whenever business department articulate system requirements to IT department. It’s obvious that there are several gaps between IT strategy and business strategy in the existing structure of Company-A. The main reason that the business-IT strategic alignment gap has happened is due to the renovation work in order to make Company-A more competitive with an international standard via upgrading the existing core-banking system.”*

*“Business department strategy is unable to indicate practical way in order to update business department ways of addressing the business process especially how they are supporting for IT department. The other gap that I have traced out is the business department expects the IT department to articulate their own business process requirements in order to build their desired computer based systems.”*

[Director-7]

*“The primary reason why business-IT strategic alignment gap occurred is because of the business department inability to understand IT department’s effort.IT department has already doing its business based on IT department sub-strategy. What remains from business department is aligning business strategy with IT strategy.”*

[Director-8]

*“The business-IT strategic alignment gap has occurred due to several reasons. It may be country wide infrastructure, which is from the side of the service provider known as Ethio*

*Telecom. But there are plenty of time the reason behind a system failure is due to internal problems. Here is one way that the IT strategy can be measured whether it has a capability to comprehend such issues. That is another reason why strategic alignment gap occurred. Mostly we have observed that the IT department has skill gap to understand the business environment in detail. And the IT strategy lacks capability to handle internal problems as expected from the business department.”*

[Manager-1]

In the interview above this thesis paper shows the driving force to business-IT strategic alignment. The study extracts out the exact reason why business-IT strategic alignment is a critical issue in the context of Company-A. In addition to that, the study found that Company-A leaders emphasized on bridging the alignment gap between IT strategy and business strategy is crucial in order to fulfill the organization’s corporate vision.

The primary advantages for business-IT alignment described by the participants was business performance. Company-A lacks the way to bridge business-IT strategic alignment gap and unable to demonstrate in order to serve the flooding clients through enabling business strategy. Therefore, successful business-IT strategic alignment has become feasible option in seeking critical business and technical knowledge in the context of Company-A. There was a substantial agreement among the participants, that business-IT strategic alignment provided sustainable performance to the selected case company (Company-A).

#### **4.4. AWARENESS OF BUSINESS-IT STRATEGIC ALIGNMENT**

Transforming business-IT strategic alignment is not a one-way step, it’s a dynamic process through a long journey. Yet it’s not that much difficult as drawing a line on the sand (Luftman,2003). Company-A selected to go through Strategic Alignment Maturity (SAM) assessment to help as a benchmark to reveal the strategic alignment gap (SAG) among the five levels of alignment. Thus, the primary focus of this case study is to bridge the gap between business strategy and IT strategy through revealing specific management practices and strategic IT choices using the result of SAM maturity assessment as a benchmarking. The results discussed above provides serious of perceptions and lessons learned that can be applied to Company-A.

#### 4.5. FACTORS INFLUENCING SUCCESSFUL BUSINESS-IT STRATEGIC ALIGNMENT (ANSWER FOR RESEARCH QUESTIONS 1&2)

Identifying and implementing best practices should increase efficiency by streamlining and simplifying process organization-wide. Current challenges facing the selected case company mostly depend on increasing enablers and decreasing inhibitors that help and hinder business-IT strategic alignment (Luftman & Brier, 1999). Despite the realized benefits of business-IT strategic alignment, Company-A's journey to achieve successful business-IT strategic alignment was not straight forward. Apart from management practices and strategic choices discussed above (see Section 4.4) the participants of Company-A perceived several factors which impacted successful strategic business-IT alignment, as presented and discussed below.

##### 4.5.1. INHIBITORS INFLUENCING STRATEGIC ALIGNMENT

The result of this research shows the main factors that were not discovered during the literature review that can considerably hinder business-IT alignment within the selected case company. Thus, the study has identified the following factors (see Table 15) in order to answer research question 1. And among those identified factors listed below in Table 15 the highlighted ones (i.e: No.1,2,5,6,7) are more important factors to enable business IT alignment and bridging strategic alignment gap in order to answer research question 2.

No	Factors influencing business-IT alignment	Evidence from the interview
1	The lack of strategies in both business and IT departments	<i>"The main problem that I have seen from the both IT and business department is that they don't have their own strategies."</i> [Director-9]
2	The lack of outsourcing oversight metrics	<i>"For your surprise, those products especially imported from abroad in relation with IT based system do not have mechanism to filter in order to get the full capacity of the system. What I observed mostly is that after we bought a system we are unable to use some business process modules or features"</i> [Director-1]
3	The delinquency to provide current requirements of business by IT	<i>"We always submit system requirements to IT department at the beginning of every year. But the IT department is unable to implement our requirements."</i> [Director-1]  <i>"IT department is mostly unable to meet our requirements."</i> [Director-3]

		<i>"We always send requirements to IT department. But IT department do not comprehend most of them."</i> [Director-2]
4	The lack of focus by IT department to meet the current business need	<i>"The IT department lost its focus. Do you know why? It's because most of the IT managers are trying to do others IT managers' tasks. Each manager in IT department should focus on his/her task only."</i> [Director-1]  <i>"IT department lose its focus because it doesn't have one standard strategy. Every manager is trying to do tasks through his/her own way."</i> [Director-3]
5	The lack of ability to use all of the existing core-banking system's features	<i>"There are lots of interesting features in the existing core-banking system. But most of us in the business department do not use any of them. It's because we don't have the right knowledge to use those features. This is the responsibility of the IT department. Yet the IT department is unable to understand those valuable features in the existing system."</i> [Director-1]
6	The ineffective way to delegate the right tasks to the right people	<i>"Financial sector is highly intensive. No excuse to reply for your customer by saying we are unable to do this feature. By all means you have to serve your clients. Unfortunately, most of the allocation in the IT department is not following the right way/procedure."</i> [Director-3]
7	the delinquency to capture knowledge from outsourcing providers	<i>"It's true that almost all the system that we are using in this country (Ethiopia) are foreign based. Those professionals from abroad are not coming to give us what we exactly need unless and otherwise if we are preparing to challenge them. In this regard my opinion is that the IT department's professionals should upgrade themselves to retain the knowledge for future purpose. And it's expected from them to block foreigners market strategy that increase costs to the company on these matters."</i> [Director-6]

Table 15. Inhibitors influencing business-IT strategic alignment

#### 4.6. PROPOSED CONCEPTUAL FRAMEWORK

The proposed framework (see Figure 15) is developed in newly format specially to determine the strategic alignment gap between IT strategy and business strategy. With this in mind, we are using critical concepts from SAM model of Henderson & Venkatramen (1989) and Luftman & Brier (1999) (See Figure 6). Our proposed conceptual model is resulting from empirical investigation of Company-A. Moreover, our model assessed previous peer reviewed researches

deeply and try to address the particular strategic alignment gap (SAG), which is discussed by this thesis paper in-depth. The concept of our research model is discussed below in detail.

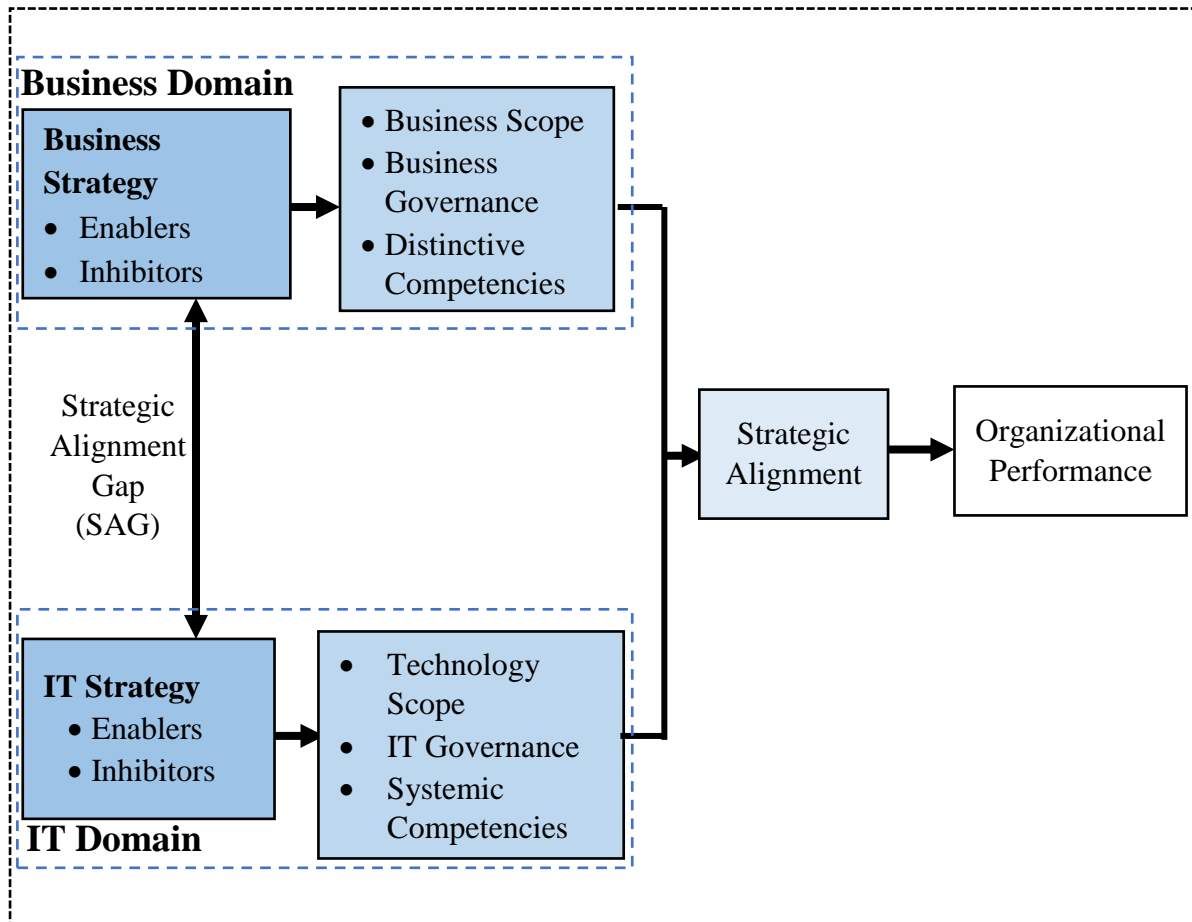


Figure 15. Conceptual framework

(Based on the concepts of SAM model of Henderson & Venkatramen (1989) and Luftman & Brier (1999))

The developed conceptual framework (see Figure 15) provides a more holistic understanding of the key factors that inhibit and/or enable successful strategic business-IT alignment under the business and IT domain shown above in Figure 15. The scope, governance and competencies of both business and IT strategies are key strategic choices and management practices that has to be understand by Company-A’s business and IT departments. So that the strategic alignment gap (SAG) can be clearly manifested. And then achieving successful business-IT strategic alignment will be tangible. In this way Company-A’s can increase its performance and reach to the next levels of alignment.

## **BUSINESS STRATEGY**

The business strategy refers to a detailed plan of an organization for achieving success in business. It represents the first component of the research model as depicted in Figure 15. Business strategy determines the way how the business decided in different aspects like offering of product market and the way how a business can differentiate from its competitors. The components that form the business strategy consist of three components that are represented in business scope, business competencies, and business governance (Henderson & Venkatraman, 1993).

## **ENABLERS AND INHIBITORS**

The proposed model highly emphasized enablers and inhibitors that help and hinder alignment. Top management in business and IT departments experience them daily. The purpose of these components is used to apply the process of alignment that leverage the enabler and avoid the inhibitors in order to achieve successful strategic alignment (Luftman, 1996; Luftman & Brier, 1999).

## **BUSINESS SCOPE**

Business scope refers to the organization's business and everything that might affect the business activities and progress. It includes the markets, products, services, groups of customers/clients, and the locations where an enterprise competes as well as the business buyers, competitors, suppliers, and potential competitors that affect the business environment (Henderson & Venkatraman, 1993; Luftman et al., 1993).

## **BUSINESS COMPETENCIES**

Business competencies refer to all attributes of business strategy that contribute to a distinctive, comparative advantage to an organization over its competitors. These attributes include cost and pricing structure, product or service quality, value added service, research, manufacturing and product development, and superior sales and distribution channels used by business (Henderson & Venkatraman, 1993; Luftman et al., 1993).

## **BUSINESS GOVERNANCE**

Business governance or corporate governance is a wide framework of systems and rules used to run and control the business process in a firm. It is the process by which corporations are properly managed, directed and controlled including the internal and external business regulations and monitoring mechanisms towards enhancing business performance and achieving long term business values. Business governance also refers to the external business relationship that exists between management, the board of directors, and stockholders of the company. It involves make-versus-buy choices in business strategy. Such choices cover a complex array of inter-organization relationship such as strategic alliances, joint ventures, marketing exchange, and technology licensing (Henderson & Venkatraman, 1993; Luftman et al.,1993;Luftman, 2003).

## **IT STRATEGY**

IT strategy consists of an IS component and an IT component, where IS defines the organization's requirements for information and systems to support the overall strategy of the business. It is firmly grounded in the business, taking into consideration both the competitive impact and alignment requirements of IS/IT. The IT strategy is concerned with outlining the vision of how the organization's demand for information and systems will be supported by technology, where essentially, it is concerned with IT supply (Luftman & Brier, 1999).The IT strategy in our research model refers to how the firm is positioned in the IS/IT marketplace. The components that form IS/IT strategy consist of technology scope, IT competencies, and IT governance (Henderson and Venkatraman, 1993).

## **IT SCOPE**

IT scope refers to precise information about technologies and computer based applications within the organization domain (for instance enterprise resource planning applications, local and wide area network infrastructures, and artificial intelligence devices), which is used to provision an organization's business strategy, policies and procedures. It is used also to shape or create new business strategy based on the opportunity that an organization faces (Henderson & Venkatraman, 1993; Luftman et al.,1993).

## **IT COMPETENCIES**

IT competencies refers to the features of IT/IS that could bring positive impacts on organizational performance in order to create new business strategies. It supports also to upgrade an existing business strategy (Henderson & Venkatraman, 1993; Luftman J. , 2003).

## **IT GOVERNANCE**

IT governance is a subunit of business or corporate governance that deals with IT functions in the firm. It involves a number of IT management activities for the board and executive management, such as assigning IT roles and responsibilities, defining constraints within which IT operates, measuring performance, and managing risk and obtaining assurance. IT governance refers to the external relationships (such as, outsourcing alliances, make-vs.-buy decisions, joint research and development for new IT capabilities) that the organization depends upon. It describes how the authority for resources, risk conflict resolution, and responsibilities for IT is shared among business partners, IT management, and service providers. Business project selection and prioritization issues are parts included in this component (Henderson & Venkatraman, 1993; Luftman et al.,1993). Another approach to IT governance is presented through several IT governance frameworks that have been suggested (such as COBIT and ITIL) to help IT managers structure and formalize the IT management process to the firm for a holistic management of IT governance processes (Luftman, 2017).

## **STRATEGIC ALIGNMENT**

Strategic alignment refers to the state of congruence between business strategy and IT strategy in an organization to support the overall business purpose that influences the firm's business performance (Henderson & Venkatraman, 1993; Luftman et al.,1993; Luftman,2003; Reich & Benbasat, 2000).

## **BUSINESS PERFORMANCE**

Venkatraman (1989) pointed out that the meaning behind business performance as organization's profitability accompanying with measurement of growth through its business endeavors and deployment of organizational and technological resources. The impact of strategic alignment between business strategy and IT strategy should have a constructive

impact on the business performance of the firm. The business performance of the firm will be influenced by operational effectiveness of IT in business through the right use of IT as a service and business-driven exploitation (Henderson & Venkatraman, 1993). Organizational performance represents the ultimate dependent variable of the research model (Figure 15). It has been introduced in the research model to show that output result of the strategic alignment will reflect on the business performance.

#### **4.7. BUSINESS REQUIREMENTS: BUSINESS DEPARTMENT TO IT DEPARTMENT**

One of the critical issue that this research observed carefully in the selected case company (Company-A) during the research process is concerning the so-called business requirements. Business requirement is an issue submitted to the IT department from the business department in order to get necessary computer based systems. At the beginning of every year the business department in Company-A lists out every requirement's need in relation with computer based system to the IT department. Several quarrelsome happened among business and IT department's professionals in Company-A on the preparation of business requirements from business department and about the implementation of the business requirement from the side of IT department. Interviewee's perceptions on this matter from both sides of business and IT departments discuss as follows.

*“The other gap has occurred because of the redundant questions from the IT department to the business department about articulating business requirements. The IT department is always asking us to give them the so-called business requirements. So, we are presenting them a list of requirements. It's obvious that we don't have any knowledge about system requirements. It's better if they (IT department) are willing to come to us and prepare the business requirements together. Mostly the IT department has implemented a system that doesn't fit our need. Yet the IT department redundantly claim that the implementation of the IT based system in Company-A is based on the business requirements from business department. At the first place gathering requirements must be the responsibilities of the IT department. They (IT department) have to dream our dreams and give us the interpretation too. They have to do a research just like what you do now. What I assure you about the negative impact concerning the issue known as 'business requirement' is too much on Company-A's performance.”*

[Director-1]

“Most of the time the IT department implement a system what we (the business department) didn’t ask for. Yet they (IT department) reply several times that most of the systems implemented in our organization (Company-A) is based on the business department’s requirement, which is totally unacceptable and sensitive issue that has to be solved without any prerequisite.”

[Director-3]

“The business department must prepare and design their system requirements in a way that can be understandable by the IT department. The main problem from the business department show us that they are unable to articulate clear system requirements.”

[Director-9]

A solution to the hot quarrelsome issues of articulating the vital need of business requirements between the business department and the IT department is a must if we are pursuing to bridge the gap between the two departments. In that regard this research paper adopted with modification of an architecture (see Figure 16) from a recent peer reviewed and completed research paper by (Rozendal, Lim, & Tan, 2015).

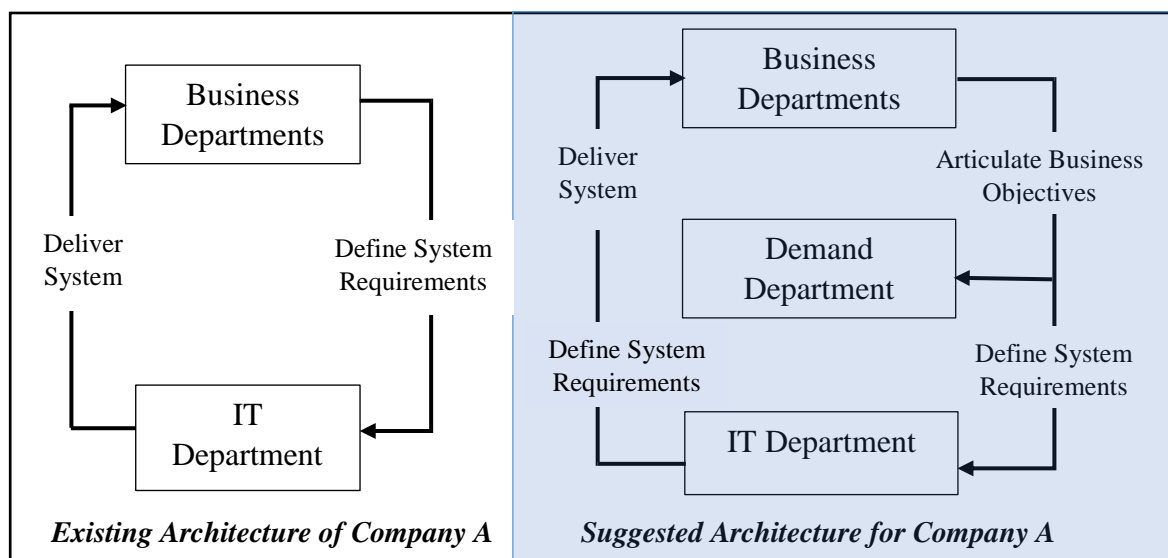


Figure 16. Illustration of case company: Existing and suggested architecture (Adopted with modification from Rozendal et al., 2015)

From the analysis of the interview and observation of the existing architecture of Company-A, this research paper suggested a new department known as Demand department. This research paper suggested the selected case company (Company-A) to recruit professionals who have the ability, capacity and experience of both departments (IT and business) to represent or fill the

Demand department. Those professionals in demand department has exposure to business and IT and they will have better capacity to articulate business objectives and define system requirements in between business and IT departments.

With a Business-Demand-IT architecture, Company-A intends to bridge the gap between business and IT departments strategies concerning the issue of business requirements. Under the approach of this new architecture, the expected way of approach from business departments are depending on the queries of software applications or technological systems to Demand department. In that way the responsibility of the business department is articulating objectives of the business and communicating these objectives with clear technological demands to the Demand department. In continuation of these issues, the Demand department has to interpret these technological demands into concise system requirements, which are then used by the IT department to craft technological solutions that fit the overarching IT policy of Company-A (Rozendal et al.,2015).

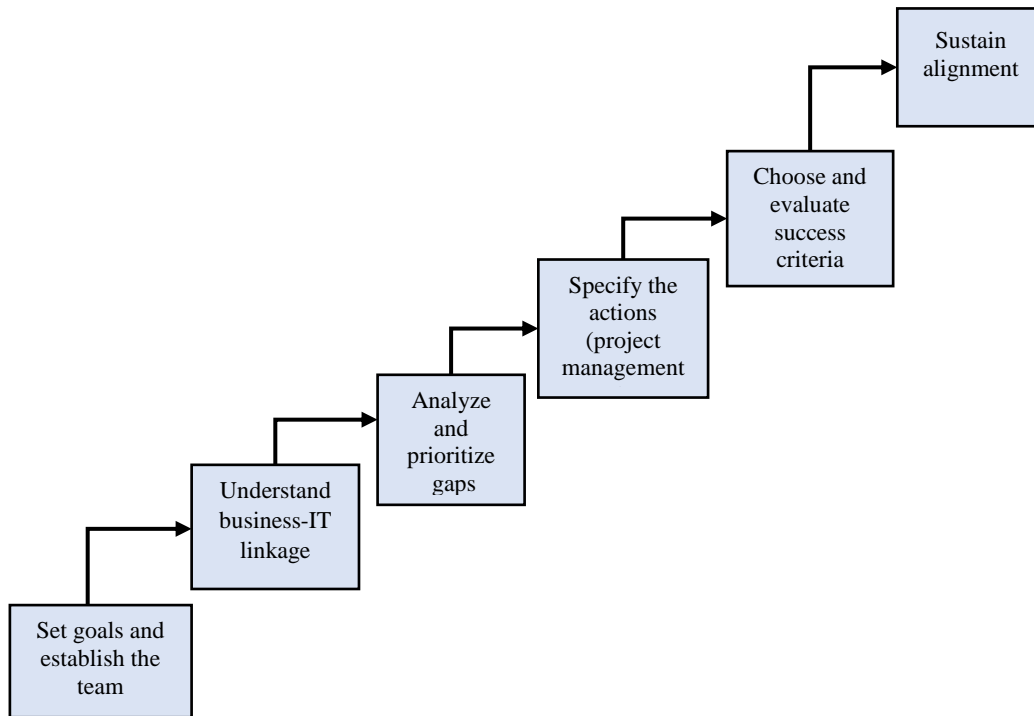
#### **4.7.1. PROCESS TO BRIDGE STRATEGIC ALIGNMENT GAP (ANSWER FOR RESEARCH QUESTION 3)**

From the interpretation and analysis of the collected data, the process to bridge the gap between IT strategy and business strategy can be divided into two critical issues, namely best management practices, and strategic IT choices.

Strategic business-IT alignment is about process. It's about what all administration does together to accomplish its business targets. Strategic business-IT alignment centers around the exercises that all administration performs to accomplish strong objectives over the IT and other unit of organizations (for instance Strategic business-IT alignment units are finance, procurement, material control, marketing, customer relations, credit appraisal, corporate and institutional banking, personal & business banking, and facility management and human resource). In this manner, strategic alignment tends to both how IT is in preserve mode with the business, and how the business should, or could be in preserve mode with the IT (see Section 4.7.1).

The other key point that has to be raised here is to notify that the strategic alignment process is mirroring a six-step process (Luftman, Bullen, Liao, Nash, & Neumann, 2004) through assessing the existing Company-A's strategic alignment to understand the existing business-IT

alignment. Consequently, this assessment is used as a roadmap to implement better level of strategic alignment.



*Figure 17. Strategic Alignment as a Process  
(Adopted with modification Luftman, 2003)*

Achieving business-IT strategic alignment is a nonstop procedure (see Figure 16). It involves deeply inside the thoughts exhibited in IT and business department strategies that address the critical problems and opportunities of the firm. This relationship must continue to identify and carry out strategies of both departments (business and IT) and realize the value added from them. The other important concept to achieve and sustain advanced level of strategic business-IT alignment is focusing on the way how to exploit the enablers and diminishing the inhibitors that cultivate successful strategic alignment. Business-IT strategic alignment is a continuous process and consider all of the ideas presented in Table 10. In order to bridge the business-IT strategic alignment gap, the selected case company's (Company-A's) business strategy need to align with the IT strategy. Those levels of processes to bridge the strategic alignment gap listed above (see Figure 16) should be considered if we need to successfully align business strategy of the selected case company with its IT strategy.

This thesis paper adopted strategic alignment maturity assessment tool of (Luftman, 2003). The tool has been successfully tested at more than 50 Global 2000 companies (Luftman ,2003). And also verified by 3,000 global participants including nearly 400 Fortune 1,000 companies (Luftman,2017). The tool has six steps (see Figure 17) of processes in order to understand the existing business-IT strategic alignment of an organization. At the same time this research paper employed the SAMM assessment questionnaire (Appendix-D) as a tool for the analysis. The SAM assessment questionnaire was prepared with an intention as an interview guide in order to collect data through interview. In fact, SAM suggested that 80% of the questionnaire has prepared as an interview guide (Luftman, 2017) to assess the business-IT strategic alignment gap (see Figure 12).

The research paper used the result of the interview questions derived from the SAM assessment tool to converge on an overall assessment level of the maturity of Company-A. After the initial maturity level was established, we used the result as a baseline to determine best practices and strategic choices. The initial benchmark is used to indicate and facilitate integration between business and IT departments. The SAM assessment result used the selected case company(Company-A's) best practices and strategic choices as a guideline to bridge the business-IT alignment strategic alignment gap. The discrepancy between the organization's existing management practices and the desired management practices were identified and then prioritized.

Alignment is a process that can be enabled or inhibited through various factors (external or internal). Since alignment is an ongoing process the business-IT strategic alignment process should focus on the six strategic alignment maturity assessment criteria.

#### **4.7.2. ASSESSING THE STRATEGIC ALIGNMENT MATURITY OF COMPANY-A**

Transforming business-IT strategic alignment is not a one-way step, it's a dynamic process through a long journey. Yet it's not that much difficult as drawing a line on the sand (Luftman, 2003). Company-A selected as a case study in order to go through Strategic Alignment Maturity (SAM) assessment to help as a benchmark while revealing the strategic alignment gap (SAG) among the five levels (see Figure 12) of alignment. Thus, the primary focus of this case study is to bridge the gap between business strategy and IT strategy through revealing specific management practices and strategic IT choices. The result (see Table 16) provides series of perceptions and lessons learned that can be applied to Company-A. This research

paper has emphasized on specific management practices and strategic IT choices that has to be suggested to implement on business-IT strategic alignment of Company-A using the SAM framework, which is categorized into six criteria (Communications, Competency/Value Measurements, Governance, Partnership, Scope and Architecture, and Skills). Those six criteria have five levels of alignment (Luftman,2003; Luftman et al., 2004) maturity as briefly described below.

- **Initial/Ad Hoc Process (Level 1):** This level signifies a company that the alignment between business and IT is at the bottom level. An organization at this level is unlikely to achieve at least a committed level of strategic alignment between IT strategy and business strategy. Naturally the way to facilitate alignment is unstudied.
- **Committed Process (Level 2):** A Company at this stage start to raise business-IT alignment awareness. The level indicate that the organization is not typically leveraged IT through enabling of alignment.
- **Established/Focused Process (Level 3):** The level at this stage indicate that there is a state of process of established alignment. The strategic alignment process is under the focus of business objectives.
- **Improved/Managed Process (Level 4):** The organization at this state proves that efficient governance and service are in place to the favor of IT's concept as a creator of value.
- **Optimized Process (Level 5):** At this final stage it's believed that IT is being to achieve the organization need with its full range. The level reach at the place where fully developed processes that include external partners and customers.

The SAM assessment questionnaire (Appendix-D) employed to its original root concept in to interview questions (using a local language) was used by this research thesis to assess the company's strategic alignment maturity to provide a baseline measure, and afterwards, to provide a longitudinal perspective of Company-A's business-IT strategic alignment maturity evolution. The original assessment was conducted in January, 2018 consisting of thirteen senior IT and business directors and managers including one officer who has already assigned by the executives to work in between of the business and IT department after the suggestion of this research to Company-A's executives through explaining by the researcher about the use of demand department (see Figure 15). The best practices were determined and a gap analysis performed to determine the current Company-A's AS-IS state where they presently stood,

conceptual model was developed and notified to the bank’s president in order to execute the “Bridging the Business-IT Strategic Alignment Gap” research program. The company’s maturity assessment results are listed below in Table 16 and Figure 17.

Alignment Categories	Maturity Assessment in %	Maturity Assessment In Average Score
Communications	32.38%	1.62
Competency/ Value Measurements	33.06%	1.65
Governance	48.75%	2.44
Partnership	30.95%	1.55
Technology Scope	30.00%	1.50
Skills	26.53%	1.33
<b>Maturity Level</b>	<b>Level 1</b>	

Table 16. Company-A’s maturity assessment

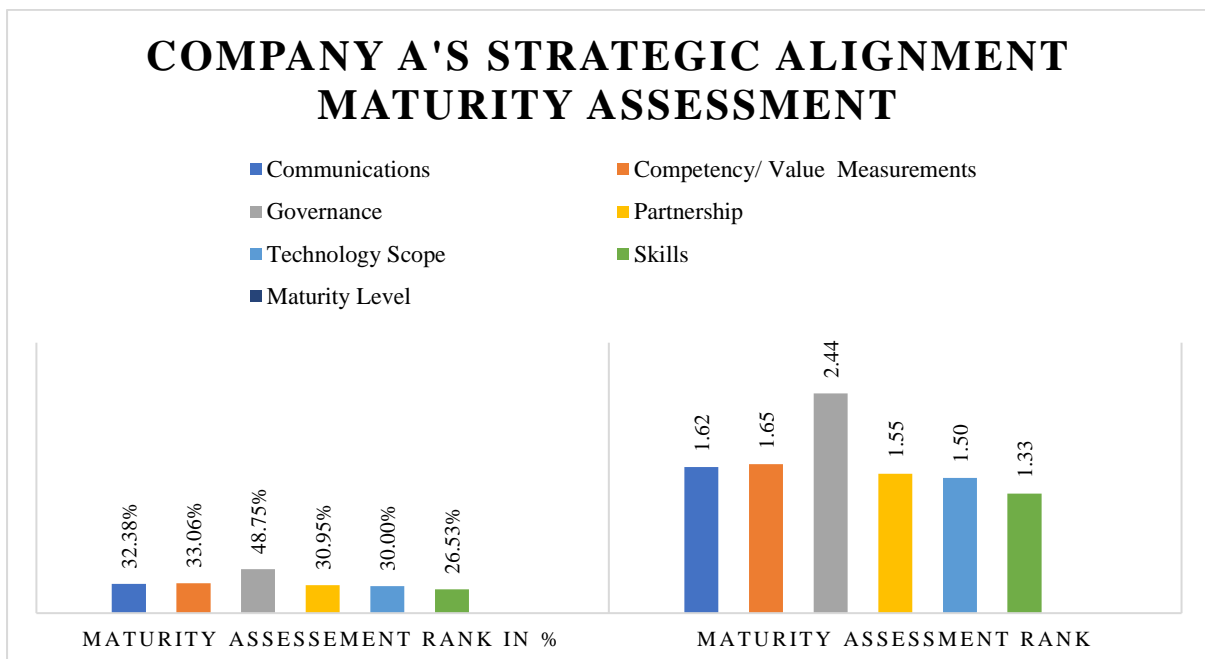


Figure 18. company a's strategic alignment maturity assessment

The next issue discusses about the key management practices and IT choices in detail as per the overall strategic alignment maturity of Level 1. Consequently, the analysis attempts to extract out solutions to the second research question (research question 2) in particular.

## COMMUNICATIONS

The maturity assessment by SAM explain about communications as a way of operative exchange of concepts. It is expected in this dimension that there should be a well understanding between business and IT. In that way communication infers the transmission of information between IT and business departments. Luftman & Brier (1999) explain that “*good IT/business communication*” looks as one of the enablers of alignment and “*IT/non-IT lack close relationship*” as one of its inhibitors of alignment. In that regard, Company-A’s strategic alignment maturity for Communications is found at a Level 1(see Appendix-D; see Table D-1 and Figure D-1). The company’s business- IT communications were primarily at the lower level. There was a limited understanding of what IT can do for the business, resulting in information systems being underutilized. Moreover, there is no formal knowledge sharing mechanisms existed.

The evidence of lack of good communication in Company-A discusses below (see Table 17) including insights of critical points with best solution indicators (see Table 18) by the researcher of this study based on participants’ reply.

<b>EFFECTIVENESS OF IT AND BUSINESS COMMUNICATIONS (Participants' Evidence)</b>
<b>[Director-1]</b>
<ul style="list-style-type: none"> <li>• <i>“IT department do not understand the business at all.”</i></li> <li>• <i>“The communication protocol concerning the business and IT communication is not that much ease of access. It’s one way, which is only from the business and it’s not flexible.”</i></li> <li>• <i>“Knowledge sharing between business and IT is at the lowest stage. We can say that it’s at the ground level.”</i></li> <li>• <i>“We do not use liaisons in my perspective. But we have a department called KID, which is used to gather information or report from both business and IT departments. The outcome of KID might need an investigation. I recommend you to have some time with KID in order to investigate about what I have said now.”</i></li> </ul>
<b>[DIRECTOR-4]</b>
<ul style="list-style-type: none"> <li>• <i>“IT department have a good understanding of the business.”</i></li> <li>• <i>“The business and IT communication style in our company is two-way. Its moderately informal and moderately flexible.”</i></li> <li>• <i>“Knowledge sharing in terms of intellectual understanding is at the lowest stage.”</i></li> <li>• <i>“I don’t know about whether we are using liaisons or not.”</i></li> </ul>
<b>[DIRECTOR-7]</b>
<ul style="list-style-type: none"> <li>• <i>“IT department should have at least 25% know how about the business department. But this is not true in IT department. I have seen that business department have a limited understanding of IT.”</i></li> <li>• <i>“Organizational learning occurs mainly via company’s electronic digital library (ftp server) peer meeting, and reporting mechanism of computer based system called SysAid.”</i></li> <li>• <i>“There is structured knowledge sharing around key functional unit processes.”</i></li> <li>• <i>“We regularly use liaisons to handover IT knowledge to the business.”</i></li> </ul>
<b>[DIRECTOR-9]</b>
<ul style="list-style-type: none"> <li>• <i>“Business department do not understand IT as expected. It’s due to the rigidity or inability of implementing the corporate strategy by the business department.”</i></li> <li>• <i>“Organizational learning occurs mainly through peer meeting.”</i></li> <li>• <i>“Knowledge sharing between business and IT is somewhat structured.”</i></li> <li>• <i>“We are planning to use liaisons in the near future.”</i></li> </ul>
<b>[DIRECTOR-6]</b>
<ul style="list-style-type: none"> <li>• <i>“IT department has a limited understanding of the business.”</i></li> <li>• <i>“Mostly organizational learning occurs primarily using peer meeting and Microsoft outlook express.”</i></li> <li>• <i>“The business and IT communication style are two way in my perspective but it’s not flexible.”</i></li> <li>• <i>“Knowledge sharing between business and IT is not that much implement practically have to implement knowledge using standard framework.”</i></li> </ul>

Table 17. Participants’ evidences on Effectiveness of IT and business communications

**Interpretation of Interviewees’ reply for  
Strategic Alignment Gap (SAG) from the side of Communications**

Company-A’s strategic alignment gap on communications criteria are observing thoroughly by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of communications criteria are lack of intranet and no initiative to review company’s website periodically. Firstly, SAM best practices suggest to an organization about the use of intranet as a global tool for interorganizational communication and knowledge sharing. Secondly, the SAM best practices indicate periodic review of webpage is used to display up-to-date information.

*Table 18.SAG from the side of communications*

**COMPETENCY/VALUE MEASUREMENT**

The vital contribution of IT to the company can be measured using competency/value measurement. The SAM maturity assessment describes this issue as the management practices and strategic IT choices (Luftman,2003). Company-A’s strategic alignment maturity for competency/value measurement is found at Level 1(see Appendix-D; see Table D-2 and Figure D-2).

The evidence of lack of measurement of the competency and value of IT in Company-A discusses below (see Table 19) including insights of critical points with best solution indicators (see Table 20) by the researcher of this study based on participants’ reply.

<b>MEASUREMENT OF THE COMPETENCY AND VALUE OF IT (Participants’ Evidence)</b>
<b>[DIRECTOR-1]</b>
<ul style="list-style-type: none"> <li>• <i>“We are properly assessing technical and cost efficiency using financial measures, such as return on investment (ROI). We are starting to put formal feedback processes in place to review and take action based on the results of our measures.”</i></li> <li>• <i>“There is a department called KID that is responsible to collect efficiency report through questionnaire. Its informal and perform occasionally.”</i></li> <li>• <i>“The demonstrated contribution that the IT function has made to the accomplishment of the organization’s strategic goals is very weak”</i></li> </ul>
<b>[DIRECTOR-4]</b>

- *“We don’t have formal method to measure contribution to the business. Measurement is not departmental base. Our measurement is based on customer satisfaction.”*
- *“We never perform either informal or formal benchmarks.”*
- *“The demonstrated contribution that the IT function has made to the accomplishment of the organization’s strategic goal is strong”*

**[DIRECTOR-7]**

- *“You might not directly measure IT impact. You can only see the value of ROI of IT through its services.”*
- *“The value measurements for IT and business are not aligned. I think that measuring the value of IT towards business is a good research area that has to be addressed by researchers.”*
- *“We have SLAs which are technically oriented (response time, length of computer downtime, etc.), between the IT and functional organizations.”*
- *“We are so tight in hard work. We don’t have that much time to perform either informal or formal practices concerning interviews, literature searches or data gathering and analysis.”*
- *“It’s better to say that we have a few continuous improvement practices in place, but no effectiveness measures are in place.”*
- *“Company-A is fully depending on IT so that the demonstrated contribution that the IT function has made to the accomplishment of the organization’s strategic goals is somewhat strong.”*

**[DIRECTOR-9]**

- *“It’s too difficult to put measurement for IT value. You should not only measure IT value based on financial means bust also using customer satisfaction.”*
- *“We have SLAs primarily for technically between the IT and functional organizations.”*
- *“performing informal or formal practices concerning interviews, literature searches or data gathering and analysis is a responsibility of KID department. So, in that context the responsible department perform informal benchmarks occasionally”*
- *“We routinely assess and/or review a formal process in place to make changes based on the results.”*
- *“Company-A is fully depending on IT so that the demonstrated contribution about the IT function has made to the accomplishment of the organization’s strategic goals is somewhat strong.”*

**[DIRECTOR-9]**

- *“We formally use financial measures, such as return on investment (ROI) and Key Performance Indicator (KPI) across functional organizations (i.e: response time and coverage).”*
- *“Our department formally measure value based on the contribution to our customers. We have formal feedback processes in place to review and take action based on the results of our measures. And to assess contributions across functional organizations.”*

- *“Company-A is fully depending on IT so that the demonstrated contribution that the IT function has made to the accomplishment of the organization’s strategic goals is somewhat weak.”*

*Table 19. Participants’ evidences on competency and value of IT*

**Interpretation of Interviewees’ reply for  
Strategic Alignment Gap (SAG) from the side of Competency/Value measurement**

Company-A’s strategic alignment gap on competency/value measurement criteria are observing by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of competency/value measurement criteria are the only use of one-dimensional technical consideration, business measurements are not multidimensional and measurement in both business and IT departments are not integrated.

*Table 20. SAG from the side of competency/value measurement*

## **GOVERNANCE**

Governance is one of the maturity assessment factor of alignment. In fact, it’s pointed out by Luftman (2003) as an enabler of alignment used to clearly define decision right for resources, risks, conflict resolutions and responsibility for IT projects within the organization. It’s expected to define this vital factor succinctly. The current strategic alignment maturity of Company-A’s for governance is found at Level 2(see Appendix-D ; see Table D-3 and Figure D-3).

The evidence of lack of governance of in Company-A discusses below (see Table 21) including insights of critical points with best solution indicators (see Table 22) by the researcher of this study based on participants’ reply.

<b>IT GOVERNANCE (Participants’ Evidence)</b>
<b>[DIRECTOR-1]</b>
<ul style="list-style-type: none"> <li>• <i>“There is no IT governance as far as I know. We don’t have formal strategic planning with IT participation. It’s done on an as-needed basis.”</i></li> </ul>
<b>[DIRECTOR-4]</b>
<ul style="list-style-type: none"> <li>• <i>“I don’t know whether there is IT governance or not.”</i></li> </ul>
<b>[DIRECTOR-7]</b>

<ul style="list-style-type: none"> <li>• <i>“We do formal strategic IT planning at the functional unit level with slight business participation. Currently we are planning to implement COBIT as IT governance. For several years we are using best practices found locally and internationally.”</i></li> <li>• <i>Our IT function is budgeted as an investment center.</i></li> <li>• <i>Our IT investment decisions are primarily based on productivity and efficiency.</i></li> <li>• <i>In my perspective the steering committee that we have currently is used to meet informally on an as-needed basis.</i></li> <li>• <i>IT projects are prioritized based in accordance with reaction to a business or IT need.</i></li> <li>• <i>“The ability of the IT function to react/respond quickly to the organization’s changing business needs is somewhat strong.”</i></li> </ul>
<b>[DIRECTOR-9]</b>
<ul style="list-style-type: none"> <li>• <i>We do formal strategic IT planning at the functional unit levels with some business participation. Currently we are using SysAid service management based software to control the IT service management of Service Desk and Help Desk.It’s based on ITIL.In the near future we are planning to implement COBIT.</i></li> <li>• <i>The IT function is budgeted as investment center.</i></li> <li>• <i>IT investment decision is based on increasing productivity.</i></li> <li>• <i>We have already organized a steering committee.</i></li> <li>• <i>IT projects determined by the business function.</i></li> <li>• <i>“The ability of the IT function to react/respond quickly to the organization’s changing business needs is somewhat strong.”</i></li> </ul>
<b>[DIRECTOR-6]</b>
<ul style="list-style-type: none"> <li>• <i>We do formal strategic business planning at the functional unit levels with some IT participation. There is some inter-organizational planning. We are under corporate wide governance, which is based on corporate strategy.</i></li> </ul>

Table 21.Participants’ evidences on governance

<p><b>Interpretation of Interviewees’ reply for Strategic Alignment Gap (SAG) from the side of Governance</b></p>
<p>Company-A’s strategic alignment gap on governance criteria are observing by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of governance criteria are:</p> <ul style="list-style-type: none"> <li>• A decentralized structure is employed by the IT department within the business department’s perspectives. This research paper confirmed most of the priorities of the IT department is determined by the business department.</li> </ul>

Table 22.SAG from the side of governance

## PARTNERSHIP

Luftman (2003) pointed out that partnership is focused on the presence connection between business and IT departments. Partnerships is among the highest rank enabler/inhibitor of business-IT alignment (Luftman & Brier,1999). Partnerships is used to enable and drive business strategies via IT department. The current strategic alignment maturity of Company-A's for partnership is found at Level 1(see Appendix-D; see Table D-4 and Figure D-4).

The evidence of lack of partnership in Company-A discusses below (see Table 23) including insights of critical points with best solution indicators (see Table 24) by the researcher of this study based on participants' reply.

<b>PARTNERSHIPS BETWEEN IT AND BUSINESS FUNCTIONS (Participants' Evidence)</b>
<b>[DIRECTOR-1]</b>
<ul style="list-style-type: none"> <li>• <i>"IT is perceived by the business as a cost of doing business."</i></li> <li>• <i>"IT is perceived by a business as a cost of doing business."</i></li> <li>• <i>"In my opinion IT department must take all the risks of the current mess up between IT and business departments."</i></li> <li>• <i>"We don't yet manage our business-IT relationships".</i></li> <li>• <i>"There is a sense of conflict and mistrust between IT and the business."</i></li> <li>• <i>"The IT department has its own C-level leader. In that way we can say that our IT-based initiatives often have a senior level IT and the CEO as the business/sponsor champion."</i></li> </ul>
<b>[DIRECTOR-4]</b>
<ul style="list-style-type: none"> <li>• <i>"I have seen that some endeavor to use IT in order to enable business processes. But this is not yet happened practically."</i></li> <li>• <i>"To tell you the truth risks and rewards are depending on each employee's motivations. As per my experience no one in Company X wants to take any risk."</i></li> <li>• <i>"Some initiatives are starting to manage business-IT relationships."</i></li> <li>• <i>"Yes, there is a sense of conflict and mistrust between IT and the business"</i></li> <li>• <i>"Our IT-based initiatives often have a senior level IT and the CEO as the business/sponsor champion."</i></li> </ul>
<b>[DIRECTOR-7]</b>
<ul style="list-style-type: none"> <li>• <i>"At this time, we are preparing ourselves as an IT department to do some bridge in order to use IT as process enabler."</i></li> <li>• <i>"As I have told you earlier the IT department is working everything as per the submitted requirement of business department. So, if anything happen the risk will be pointing on business department."</i></li> </ul>

<ul style="list-style-type: none"> <li>• <i>“We are planning to revise our business-IT relationships.”</i></li> <li>• <i>“Yes, it is obvious that there is a sense of conflict and mistrust between IT and the business”</i></li> <li>• <i>“Our IT-based initiatives often have a senior level IT and the CEO as the business/sponsor champion.”</i></li> </ul>
<b>[DIRECTOR-9]</b>
<ul style="list-style-type: none"> <li>• <i>“IT is perceived by the business as a cost of doing business.”</i></li> <li>• <i>“IT is used to enable business processes.”</i></li> <li>• <i>“IT takes most of the risks with little reward”</i></li> <li>• <i>“We have plan in the near future to so some action concerning the business-IT relationships.”</i></li> </ul>
<b>[DIRECTOR-6]</b>
<ul style="list-style-type: none"> <li>• <i>“In my perspective IT is perceived by the business as emerging as an asset.”</i></li> <li>• <i>“The role of IT in strategic business planning is used to enable business processes.”</i></li> <li>• <i>“As my understanding there are lots of conflicts between IT and business departments towards taking risks and rewards.”</i></li> <li>• <i>“We don’t still manage our relationships.”</i></li> <li>• <i>“There is a sense of conflict and mistrust between IT and the business.”</i></li> </ul>

Table 23. Participants’ evidences on partnership

<b>Interpretation of Interviewees’ reply for Strategic Alignment Gap (SAG) from the side of Partnership</b>
<p>Company-A’s strategic alignment gap on partnership criteria are observing by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of partnership criteria are:</p> <ul style="list-style-type: none"> <li>• IT department of Company-A doesn’t have the right or capability to define business strategies.</li> <li>• There are no strategical ways of standard to collect new customer requests (i.e: lack of e-business initiatives).</li> </ul>

Table 24. SAG from the side of partnership

## SCOPE & ARCHITECTURE

Scope and architecture mainly evaluate the degree of capability of IT in order to perform major tasks apart from back office and the front office processes of the organization (Luftman,2003). *“Scope and architecture enable or drive business processes and strategies as a true standard*

(Luftman, 2003)". In that regard, scope and architecture determines the effect of IT infrastructure based on management decisions and strategic choices.

The current strategic alignment maturity of Company-A's for the criteria of Scope and Architecture is found at Level 1(see Appendix\_D; Table D-5 and Figure D-5).

The evidence of lack of scope and architecture in Company-A discusses below (see Table 25) including insights of critical points with best solution indicators (see Table 26) by the researcher of this study based on participants' reply.

<b>SCOPE AND ARCHITECTURE OF THE IT INFRASTRUCTURE (Participants' Evidence)</b>
<b>[DIRECTOR-1]</b>
<ul style="list-style-type: none"> <li>• <i>"You can categorize scope of our IT system under office support like e-mail and word processing."</i></li> <li>• <i>"A business change is transparent across the entire organization"</i></li> <li>• <i>"IT infrastructure flexibility is not that much as expected. The IT infrastructure flexibility is not that much deserved for the current demand of business department."</i></li> </ul>
<b>[DIRECTOR-4]</b>
<ul style="list-style-type: none"> <li>• <i>"The scope of our IT system is under business process enablers."</i></li> <li>• <i>"A business change is transparent across the entire organization"</i></li> <li>• <i>"IT infrastructure flexibility is good. You can categorize under emerging as driven by the requirements of the current business strategy."</i></li> </ul>
<b>[DIRECTOR-7]</b>
<ul style="list-style-type: none"> <li>• <i>"IT is a substance for business process change."</i></li> <li>• <i>"Our IT standards are defined at the functional unit level but not across different functional units."</i></li> <li>• <i>"Most of the time, a business or IT change is transparent across the entire organization."</i></li> </ul>
<b>[DIRECTOR-9]</b>
<ul style="list-style-type: none"> <li>• <i>"IT supports business process change."</i></li> <li>• <i>"Our IT standards are defined and enforced at the functional unit level but not across different functional units."</i></li> <li>• <i>"IT change is transparent across the entire organization."</i></li> </ul>
<b>[DIRECTOR-6]</b>
<ul style="list-style-type: none"> <li>• <i>"Our primary systems are traditional office support."</i></li> <li>• <i>"A business change is transparent across the entire organization."</i></li> </ul>

Table 25.SAG from the side of scope and architecture

<b>Interpretation of Interviewees’ reply for Strategic Alignment Gap (SAG) from the side of Scope &amp; Architecture</b>
<p>Company-A’s strategic alignment gap on Scope and architecture criteria are thoroughly observing by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of scope and architecture criteria are:</p> <ul style="list-style-type: none"> <li>• Company-A uses different application software with an expired license. Those software applications are exposing the whole system and infrastructure to intruders. And it has a negative impact on the efficient of the company.</li> <li>• The IT department don’t use global integrated standards for hardware and software solutions. The IT department fully depend on outsourcing products rather than local and in-house development processes.</li> </ul>

*Table 26.SAG from the side of scope and architecture*

## **SKILLS**

Skills defines the IT human resource consideration in order to hire and cancel jobs (Luftman, 2003). It determines the level of organization’s readiness for change and leverage idea of state-of-the-art.

The current strategic alignment maturity of Company-A’s for the criteria of skills is found at Level 1(see Appendix-D; see Table D-6 and Figure D-6).

The evidence of lack of skills in Company-A discusses below (see Table 27) including insights of critical points with best solution indicators (see Table 28) by the researcher of this study based on participants’ reply.

<b>HUMAN RESOURCE SKILLS (Participants’ Evidence)</b>
<b>[DIRECTOR-1]</b>
<ul style="list-style-type: none"> <li>• <i>“I don’t think so. To tell you frankly there is no innovative entrepreneurial environment. Mostly we are busy of doing our day-to-day activities.”</i></li> <li>• <i>“Change readiness programs are in place at the corporate level and we are proactive and anticipate change.”</i></li> <li>• <i>“We can say that job transfers never occur.”</i></li> <li>• <i>“The organization does not provide opportunities to learn about support services outside the employee’s functional unit.”</i></li> </ul>

<ul style="list-style-type: none"> <li>• <i>“There is minimum interaction between IT and business units.”</i></li> </ul>
<b>[DIRECTOR-4]</b>
<ul style="list-style-type: none"> <li>• <i>“We recognize the need for change. And change readiness programs are emerging.”</i></li> <li>• <i>“It’s better to say that job transfers rarely occur.”</i></li> <li>• <i>“Opportunities are dependent on the functional unit.”</i></li> <li>• <i>“Trust and confidence among IT and business is emerging.”</i></li> </ul>
<b>[DIRECTOR-7]</b>
<ul style="list-style-type: none"> <li>• <i>“As per my department work status we don’t have time to innovate. This responsibility belongs to KID department.”</i></li> <li>• <i>“Our important IT decisions are made by top business management or IT management at the corporate level only.”</i></li> <li>• <i>“We recognize the need for change. In contrary to this fact, the business department tend to resist change.”</i></li> <li>• <i>“Job transfers rarely occur.”</i></li> <li>• <i>“There is no cross training till now. May be in the future we will think about it.”</i></li> <li>• <i>“Trust and confidence among IT and business is at the lowest level. I have seen that it’s at a minimum pace.”</i></li> <li>• <i>“We can say that IT hiring is only focused on technical expertise. One of the reason for such issue is the country’s (Ethiopia) educational curriculum. Most of the educational curriculum do not include as per business perspectives. So that we are forced to focus only on technical matters when you come to IT related jobs.”</i></li> </ul>
<b>[DIRECTOR-9]</b>
<ul style="list-style-type: none"> <li>• <i>“Frankly speaking most of the employees here are always at work. We don’t have time to think about innovation. We all are highly crowded with day-to-day tasks.”</i></li> <li>• <i>“Our important IT decisions are made by Top business management or IT management at the corporate level only.”</i></li> <li>• <i>As an organization we all tend to resist change. Most of the employee here are in fear of losing their privacy concerning the upcoming change.</i></li> <li>• <i>“Job transfers rarely occur.”</i></li> <li>• <i>“Opportunities are dependent on the functional unit.”</i></li> </ul>
<b>[DIRECTOR-6]</b>
<ul style="list-style-type: none"> <li>• <i>“Entrepreneurship depends based on employees’ performance.”</i></li> <li>• <i>“Our important IT decisions are made by Top business.”</i></li> <li>• <i>“Of course, we recognize the need for change. But when come to an implementation we don’t change readiness program. Mostly change in our organization is based on driving force from National Bank of Ethiopia or based another external factor.”</i></li> <li>• <i>“Job transfers rarely occur.”</i></li> <li>• <i>“The organization opportunities are dependent on the functional unit”</i></li> <li>• <i>“There is minimum interaction between IT and business units.”</i></li> <li>• <i>“IT hiring is focused on technical expertise.”</i></li> </ul>

Table 27. Participants’ evidences on skills

<b>Interpretation of Interviewees' reply for Strategic Alignment Gap (SAG) from the side of Skills</b>
<p>Company-A's strategic alignment gap on skills criteria are observing by the researcher of this study and confirmed during the interview sessions from participants. Some of those critical gaps on the side of skills criteria are:</p> <ul style="list-style-type: none"> <li>• Company-A don't have an exposure to prepare a workshop through its employees in order to produce innovative growth projects to attract and dig out real professionals. This mechanism is used mainly to reach experienced business and IT experts.</li> <li>• Job rotation in Company-A has done only in a single unit of business department as per the evidence of interview from Director-1.</li> </ul>

*Table 28.SAG from the side of skills*

#### **4.8. PRESERVE BUSINESS-IT STRATEGIC ALIGNMENT**

This research paper particularly follows the goal of BITA researchers in order to come up with a new term that can reflect all of those terms in one (see Section 2.3, para 1). Coltman et al. (2015) in their recent article journal emphasizes about the need of a new term and definition of alignment that can fit the current generation and advancement. In that regard, this thesis paper devoted to find out a new term of alignment accompanying with its definition that is suitable to the current global advancement.

Preserve is a newly distinct term used to define alignment in a better and acceptable way. This term, preserve, is mentioned only in this research paper. The primary need to use a new term on top of the existing one is because of the current situation in Company-A in relation with business and IT strategies. Company-A is trying to adopt several business and IT strategies with in short period of time. This signifies that Company-A need to strong focus on the selection of the strategy to follow. Moreover, Company-A has to establish or provide the prerequisite before implementing any strategy, framework or model. The researcher observed in Company-A that there is no understanding about what comes first as a prerequisite before implementing any strategy among business and IT managing directors. There are several issues that the old ideas and concepts from Company-A's IT department and the new requirement from Company-A's business department are not preserved. The issue is not 'reserved' the old fashion but it takes to be 'preserved' with the current and future demand or business requirements.

The first concept about preservation of two things for the sake of differentiating the old strategy from the new one was clearly explained 1985 years ago in the Holy Bible (King James Version, 1611). The idea is an old teaching to show the difference between strategies of two powerful leaders or icons among their followers. The exact statement written on the book is that *“But new wine must be put into new bottles; and both are preserved”* (The King James, Luke 5:38). Consequently, this research pointed out a concept that new strategy must be put into new organizational structure or conversely implementing new strategy is vanish on the place where there is no compatible organizational platform. Most of the managing directors in Company-A as explained in section 4.7.1. of this thesis paper are trying to do business with an old thinking and strategies.

Director-2 confirmed that *“Still we are using a server based and crucial application software, which was developed in 2007. The license of the application software has already expired.”* This is one of an evidence that Company-A needs to preserve the platform first in order to implement new strategy. The other confirmation was from Director-5 that *“Company-A is investing lots of money to its employees. Even most of us were taking training outside of the country. Yet, the problem between business requirements and IT provisions are persisting till today.”*

Similarly, we can deduce another good example to clarify the important term of preserve. Let's take a bridge on the ring toad or a bridge that connect two places. The engineers that construct a bridge set a rule, which is known as capacity load. Mostly the capacity load indicates that anything that can pass on the bridge must be with some amount of load. If this rule is unable to protect the bridge might be broken. The same is with the business-IT strategic alignment concept. As we have discussed above Company-A are trying to implement some new feature with the application software developed in 2007. It's deadly sure that the desired feature in 2018 is incompatible with the application software developed in 2007. In fact in 2014 Microsoft corporation has announced about the death of Windows XP support yet the applications software used by Company-A was designed to run on Windows XP compatible operating system (Microsoft, 2018). This is one of a good and sensitive indication of the problem in Company-A concerning the issue of preservation. For this reason, Company-A has to prepare the way to implement new and state-of-the-art strategies of business and IT through creating awareness among managing directors who have capability on decision making about what to be preserved by the company and its human resources.

Given that the reason, investigating a new term accompanying with new definition that can be include all the concepts (see Section 2.3, para 1) is a must. In that way the new term and its definition will be explained below in Table 29.

New term for alignment
“Preserve”
New definition for alignment
It is a continuous process on what the business requires from information technology (IT) and what the information technology (IT) needs to be fulfilled by the business. In consideration of the existing or the current platform of an organization, which means that a compatible capability of business-IT strategies, business-IT infrastructures and skilled man power to implement, interpret and transfer the designed system in to meaningful ways. So that both are preserved.

*Table 29. New term and definition for alignment*

#### **4.9. CHAPTER SUMMARY**

The findings and the case study analysis of the research has been discussed well in this chapter. An acceptable evidence of successful alignment between IT strategy and business strategy would be tangible when both IT and business strategies can demonstrate the extent of business-IT strategic alignment. In that regard this chapter identified the view that support to improve the business-IT strategic alignment tin the context of Company-A.

This chapter revealed and approved that bridging business-IT strategic alignment gap was an ultimate way of increasing organizational performance. This concept has already verified in detail accompanying with the data collected from both business and IT departments. This chapter also explained the best way of detecting business-IT strategic alignment gap through the model developed by the researcher. The solution to solve the endless quarrelsome between IT and business department concerning business requirement needs has been explained in detail through the adopted architecture with minor modification. The findings prompt that business-IT strategic alignment gap is highly influenced by two factors: strategic alignment enablers and strategic alignment inhibitors. Finally, this chapter presents a new term and definition of alignment which is not used and found in any other BITA research paper.

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5.1. OVERVIEW

The research presents in this thesis aims at providing an understanding of key factors and a framework of management practices and strategic choices, known as SAG (Strategic Alignment Gap) tracer, for enhancing the dynamics of business-IT strategic alignment through revealing the gap between business strategy and IT strategy. The proposed model (see Figure 15) is an attempt to provide vital insights into bridging the business-IT alignment gap.

#### 5.2. RESULTS AND CONCLUSION

In the financial sector of a developing country providing insights about key factors that can hinder successful business-IT alignment is undoubtedly vital. This was the aim of our study to research about. The concept behind business-IT strategic alignment gap was explained in detail along with an investigation of the challenges that Company-A are facing in order to bridge the gap between business strategy IT and strategy. The major benefits of researching the business-IT strategic alignment gap (SAG) for the Company-A are summarized in Table 30. Consequently, a case study research involving a private bank (financial sector) in Ethiopia that had an earlier history of solid business-IT alignment was applied to obtain a deeper understanding of challenges to bridge the business-IT strategic alignment gap (SAG). This research paper is one of a kind empirical study used to identify the potential factors hindering successful business-IT strategic alignment in the financial sector of a developing country (Ethiopia). Moreover, the conclusion made throughout this research contributes to both theory and practice in several ways. And those are:

1. We have shown factors influencing successful business-IT strategic alignment that can inhibit alignment. Those factors shown in Table 30 are only explaining in this research paper.
2. We reviewed past studies of BITA to attain a feasible working terms and definition of alignment that could be applied by researchers in the future studies of the phenomenon.

3. We developed a framework to detect and bridge the gap between IT strategy and business strategy. The model can be used as a roadmap. It's used to identify relational components as being important for achieving successful business-IT strategic alignment.
4. We extend business and IT executives' understanding of business-IT strategic alignment and how it creates value towards organizational performance.
5. The research focused on the practical actions of aligning business-IT strategies on what business and IT managers implement on their day-to-day tasks.
6. We have assessed and pointed out the idea of examining the causes of business-IT strategic alignment gap as (Sabherwal & Chan, 2001) suggested to research this idea under their future research section.

Information regarding business-IT strategic alignment gap was obtained from numerous participants of Company-A with different perspective inclusive of their experiences. Important findings produced complete framework that can be used as a mechanism to filter out enablers and inhibitors of business-IT strategic alignment to clearly see best strategic choices and management practices to enhance precise decisions.

The six business-IT strategic alignment criteria (dimensions) based on the model of (Luftman, 2003) are employed as a process to address challenges of business-IT strategic alignment. And also, to assesses the existing maturity of business-IT strategic alignment of Company-A. The result of each dimensions from the rigorous analysis has pointed out clearly in accordance with their wide-ranging solutions. We have used the result of maturity assessment to notify the way to facilitate enablers and minimize inhibitors of business-IT strategic alignment that should be addressed in the context of Company-A.

<b>Major benefits of process to bridge the business-IT strategic alignment gap</b>
<ul style="list-style-type: none"> <li>• Identifies the key capabilities of the business and IT departments' need</li> <li>• Develops model that demonstrate practical ways to bridge business-IT strategic alignment gap</li> <li>• Magnifies IT department's lens towards business departments' current demand and system requirements</li> <li>• Magnifies business departments' lens towards IT department's endeavor and implementations of system requirements</li> <li>• Shows a way to minimize distrust between IT and business departments</li> <li>• Facilitate reliable bridge between IT and business departments</li> <li>• Facilitate focus to IT department through prioritizing on what matters for the business departments</li> <li>• Provides a new department in between of IT and business departments that can bridge the strategic alignment gap (SAG)</li> </ul>

*Table 30. A summary of results and benefits of SAG process*

The research validates that successful strategic alignment ought to focus on a larger collection of activities that business and IT managers need to carry out jointly in order to coordinate policies, procedures, goals and operations within IT and across other organizational units. Thus, the main objective of this study was to address a practical way to bridge the gap between IT strategy and business strategy through empirically exploring strategic alignment gap (SAG).

The other uniqueness of this study is the use of a qualitative case study approach to address the issue of business-IT strategic alignment gap (SAG), which is one of a very few research (Yin, 2009). Similarly we dedicate our full time in a diligent manner in order to research two important investigations simultaneously with in a single research paper under the same graduation year (i.e. Strategic Alignment Maturity Assessment and Bridging the Business-IT Strategic Alignment Gap (SAG)). It's an indication that doing BITA research only in one of the topic mentioned here is not that much valuable particularly in the context of developing countries (for instance: Ethiopia), since the world economy is changing dynamically. The developing countries researchers have to focus on a way to reach or at least follow in a near distance from the developed world concerning research about business-IT strategic alignment.

This research paper uniquely uses a two way of verification to reach at sound and empirical based findings. Firstly, we have assessed the existing maturity of business-IT alignment in Company-A through detail interview with business and IT directors using SAM assessment tool. Secondly, we have made another interview session in order to cross check and detect inhibitors between IT and business departments based on the six most important enablers and inhibitors of business-IT alignment (see Table 10). And then a model has been developed to bridge the gap between IT and business strategies. In that regard we can boldly say that this thesis paper does two researches at the same time that can benefit the future work in business and IT management research.

### **5.3. RECOMMENDATIONS FOR PRACTICES**

Several recommendations given towards business and IT executives inclusive of participants' perspectives in order to bridge the strategic alignment gap and its impact on the organizational performance is well addressed and proposed by the findings of this thesis paper. In addition to those recommendations this study uses data triangulation in order to cross check the validity and reliability of the proposed model from multiple source of information for bridging the gap

between IT strategy and business strategy particularly for researchers interested in business-IT strategic alignment. The study provides critical points to the management of business and IT departments in Company-A based in order to provide and shape their strategic views. It increases effectiveness of accurate decision-making by the management of Company-A towards the benefit and performance of the company. So, this research paper highly recommends Company-A and/or other organizations to implement the strategic choices, the management practices and the SAG model explained in-depth by this research paper to increase their organizations' performance. Moreover, the study can be a good benchmark and asset for interested researchers in the study's area via major insights discusses as follows.

First, the selected case company (Company-A) executives should understand the need of Demand department in order to solve the existing and unresolved misalignment issues between business department's strategy and IT department's strategy. The need for demand department is not a matter of choice. It's a matter of achieving successful business-IT strategic alignment with the intention of increasing organizational performance.

Second, IT directors should be aware of the existing business requirements' need (for instance, concerning what has to be demanded from stakeholders such as customers, employees, suppliers and shareholders) particularly towards competing market competitors. The IT department should see alternative means in order to give at least temporary solution to business departments. For instance, Director-1 agrees with this idea during the interview session. Director-1 replied that *"We have asked the IT department at the beginning of last year in January, 2017 to develop a computer based application which is not that much complex. Yet no reply from them. At least the IT department has to give us an alternative means to do what we need until we get a final solution"*.

Third, business and IT directors including managers in both departments should clearly articulate their vision and strategy. They have to understand the true meaning of a strategy. From the interview session what we understand is that most of the directors and managers from business and IT departments are unable to clarify us the exact meaning of strategy. This is where a strategic alignment gap started. *"The key to strategy is that it's the positioning of one business against others."* (Harvard Business Review, 2018). That means positioning Company-A's business to other strong competitors with in the same sector. Here the major problem arises from the current vision statement of Company-A, which says *"To be Ethiopian Five-Star Bank"* (Company-A, 2017). Actually the problem is not the vision statement rather the targeted competitors based the vision statement as per the participants' perspectives from

the side of Company-A. In all the interview session with participants our last question was about the meaning of five-star bank. Surprisingly all participants were replying as five-star bank as per Company's A vision statement mean that positioning of Company-A's business against five-star hotels in Addis Ababa, Ethiopia. They all are considering the customer service level in any five-star hotel particularly in Addis Ababa. Hotels are their own strategic factor. The positioning of Company-A's business has to be against an organization with the same sector. African Banker magazine discussed about the star rating issues in the banking sector. The magazine succinctly notified as only one bank anywhere in the world received a five-star rating: South Africa's Capitec (African Banker, 2017). Within this regard Company-A might face a great challenge to reach at the level of a five-star rating at its existing business-IT strategic alignment maturity level. The managing team of Company-A needs to revise their vision since the Company-A's vision has a great impact on the strategy of both business and IT department towards the issue of business positioning. At the first place they have to know that there is a star rating in the banking sector worldwide. This research paper recommends Company-A at least to shift its positioning towards three stars rating banks (for instance, Access Bank, First Bank of Nigeria, Fidelity, Guranty Trust Bank, UBA and Zenith) (African Banker, 2017) with full knowledge of understanding about the exact meaning of star rating in the banking industry.

Fourth, directors from business and IT departments of Company-A should understand the negative sides of using different strategical models or frameworks at the same time (for instance, COBIT, ITIL, Gartner, and BSC). What this research paper observed practically and understand from those empirical investigation is that professionals in IT and business departments of Company-A are trying to implement different frameworks simultaneously. We recommend that every framework or model whether governance or strategical based have its own negative sides in addition to the good sides. Company-A's managing directors have to understand the consequences of negative sides from consuming of multiple frameworks and strategies. It increases the negative sides of each frameworks on company's performance. We also recommend at least to use selected framework for about some range of time unless and otherwise if some obligations happened. The other problem that we have traced via this research paper is that Company-A employed governance or strategic framework for only short period of time. Frameworks in Company-A are changing with in short period of time without utilizing the selected framework in a well and expected manner. This has a negative impact towards the Company-A's performance.

At last, managers should be aware of the importance of business-IT strategic alignment preconditions and processes. These factors are found to be important indicators of the business-IT strategic alignment, but also indirectly impact the organizational performance.

#### **5.4. RECOMMENDATIONS FOR FUTURE RESEARCH**

Gathering additional required data such as customer satisfaction or retention, financial data (earning per share), productivity, and specific measurements of industry should be considered by future research. More criteria of objective measurement, such as data from Company-A's projects can be incorporated to reduce the gap between IT strategy and business strategy in order to increase the reliability and validity of the proposed model developed by this research paper.

The other remarkable issue that should be recommend by this research paper is to test this case study at different sectors rather than financial sector. It would be interesting to see how the business-IT strategic alignment gap is revealed and managed at companies with a different income model. In that way the possibilities of our analytical findings can be validated and refined in order to generalize our case analysis to organizations.

Finally, these all sensitive evidences and concepts are as goads, and as nails fastened by the researcher from this empirical study.

## 6. REFERENCES

- Abudelselam. (2017). *Assessing Strategic Information Technology-Business Alignment Maturity: The Case of Commercial Banks in Ethiopia*. Addis Ababa: Unpublished Masters thesis.
- Adam, L. (2012). *Understanding what is happening in ICT in Ethiopia*. [online] Researchictafrica.net. Available at: [https://www.researchictafrica.net/publications/Evidence\\_for\\_ICT\\_Policy\\_Action/Policy\\_Paper\\_3\\_-\\_Understanding\\_what\\_is\\_happening\\_in\\_ICT\\_in\\_Ethiopia.pdf](https://www.researchictafrica.net/publications/Evidence_for_ICT_Policy_Action/Policy_Paper_3_-_Understanding_what_is_happening_in_ICT_in_Ethiopia.pdf) [Accessed 1 Feb. 2018].
- African Banker. (2017). Nigerian banks remain strong despite economic woes. *West african Banks Negotiate Economic Eddies(40), 2nd Quarter*, 19-21. (A. B. Yedder, & A. Versi, Eds.) London, United Kingdom: IC Publications.
- Aldhmour FM (2009) Towards understanding the relationship between information and communication technology and competitive advantage in a developing economy. *International Review of Business Research Papers* 5(1), 307–320.
- Amare, G. (2013). *Information technology and business strategy alignment, and its impact on the performance of commercial banks in Ethiopia*. Adama, Unpublished Masters thesis.
- Atkinson, R. (2017, September). *Alignment and Beyond Support as a Business Unit*. New England: HDI Northern New England.
- Avison, D., Jones, J., Powell, P., & Wilson, D. (2004). Using and validating the strategic alignment model. *The Journal of Strategic Information Systems*, 223-246 .
- Belfo, F., & Sousa, R. D. (2012). A Critical Review of Luftman's Instrument for Business-IT Alignment . *Association for Information Systems AIS Electronic Library (AISeL)*.
- Bergeron, F., Raymond, L. and Rivard, S. 2001 “Fit in strategic information technology management research: An empirical comparison of perspectives”, *Omega*, (29:2), pp. 125–142.
- Bogale, M. (2016). *Auditing IT and IT Governance in Ethiopia*. Addis Ababa. ScienceDirect.
- Boonstra, A., Broekhuis, M., van Offenbeek, M. v., & Wortmann, H. (2011). Strategic alternatives in telecare design:Developing a value-configuration-based alignment framework. *The Journal of Strategic Information Systems*, 20(2), 198-214.
- Broadbent, M. and Kitzis, E. (2005) “Interweaving Business-Driven IT Strategy and Execution: Four foundation factors”, *Ivey Business Journal* (69:3), pp. 1–6.
- Brown, C. and Magill, S. 1994 “Alignment of the IS Functions with the Enterprise: Toward a Model of Antecedents” *MIS Quarterly*, (18:4), pp. 371–403.
- Buchanan, J., & Jones, M. L. (2010). The efficacy of utilising Nvivo for interview data from the electronic gaming industry in two jurisdictions. *Review of Management Innovation & Creativity*.

- Byrd, T., Lewis, B., & Bryan, R. (2006). The leveraging influence of strategic alignment on IT investment: An empirical examination. *Information & management*, 308-321.
- Campbell, B. (2005). Alignment: Resolving ambiguity within bounded choices., (pp. 1-14). Bangkok, Thailand.
- Campbell, J. (1990). *Modeling the performance prediction problem in industrial and* (Vols. Vol. 1, 2nd ed). Consulting Psychologists Press.
- Carcary, M., & Zlydareva, O. (2014). Investigating the application of the IT-CMF in maturing strategic business-IT alignment. In *Proceedings of the 8th European Conference on Information Management and Evaluation, Ghent, Belgium, ECIME*, 29-33.
- Chan, Y. (2002). Why Haven't we Mastered Alignment?: The importance of the informal organization structure. *MIS Quarterly Executive*, 1(2), 97-112.
- Chan, Y., & Reich, B. (2007). IT alignment: what have we learned? *Journal of Information technology*, 297-315.
- Chan, Y., Huff, S., Barclay, D., & Copeland, D. (1997). Business Strategic Orientation, Information Systems Strategic Orientation, and Strategic Alignment. *Information Systems Research*, 125-150.
- Charoensuk, S., Wongsurawat, W., & Khang, D. (2014). Business-IT Alignment: A practical research approach. *The Journal of High Technology Management Research*, 132-147.
- Ciborra, C. (1997). Profundis? Deconstructing the concept of strategic alignment. *IRS Conference* (<http://iris.informatik.gu.ge/conference/iris20/60.htm> ) .
- Ciborra, C. (2000). *From Control to Drift: The Dynamics of Corporate Information Infrastructures* (1st ed.). Oxford University Press.
- Coltman, T., Tallon, P., Sharma, R., & Queiroz, M. (2015). Strategic IT alignment: Twenty five years on. *Journal of Information Technology*, 91-100.
- Company-A. (2017). *Annual Report*. Addis Ababa: Company A.
- Creswell, J. W. (2012). *Educational Research*. Nebraska: Pearson Education, Inc.
- Dawson, C. (2002). *Practical Research Methods A user-friendly guide to mastering research techniques and projects*. London: How To Books Ltd, 3 Newtec Place.
- Earl, M. (1992). Putting IT in its place: A polemic for the nineties. *Journal of Information Technology*, 7(2), 100-108.
- Economist, T. (2009). IT modernisation: An exercise in alignment. London, England.
- Eisenhardt, K. (1989). Building theories from case study research. *14*(4), 532-550.
- El-Telbany, O., & Elragal, A. (2014). Business-information systems strategies: A focus on misalignment. *Procedia Technology*, 250-262.
- Eriksson, & Kovalainen. (2008). *Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers*. Pamela Baxter & Susan Jack.

- Ethiopia, F. D. (2016). *Growth and Transformation Plan II (GTP II) (2015/16-2019/20)*. Addis Ababa: National Planning Commission.
- EthioTelecom. (2013, 12). *The Management Contract with France Telecom concluded*. [online] Available at: <http://www.ethiotelecom.et>: <http://www.ethiotelecom.et/?q=node/24> [Accessed 1 Feb. 2018].
- Galliers, R. (1993). Towards a flexible information architecture: integrating business strategies, information systems strategies, and business process redesign. *Journal of Information Systems*, 3(3), 199-213.
- Gerow, J. E.; Grover, V., Thatcher, J. B. and Roth, P. L. 2014. "Looking Toward the Future of IT-Business Strategic Alignment through the Past: A Meta-Analysis", *MIS Quarterly*, (38: 4) pp.1059-1085.
- Gerow, J., Thatcher, J., & Grover, V. (2015). Six Types of IT-Business Strategic Alignment: An investigation of the constructs and their measurement. *European Journal of Information Systems*, 465-491.
- GIIM, G. I. (2014). *Alignment Maturity Brochure*. Retrieved from [www.globaliim.com](http://www.globaliim.com): <https://www.globaliim.com/app/download/.../Alignment+Maturity+Brochure.pdf>
- GIL MJA, Aksoy D and Kulcsar B (2009) ERP and four dimensions of absorptive capacity: lessons from a developing country. Best Practices for the Knowledge Society. Knowledge, Learning, Development and Technology for All, Second World Summit on the Knowledge Society (WSKS 2009), Chania, Crete, Greece, 16–18 September.
- Goedvolk, H., Schijndel, A., Swede, V., & Tolido, R. (2000). The Design, Development and Deployment of ICT Systems in the 21st Century: Integrated Architecture Framework (IAF). *Cap Gemini Ernst and Young*.
- Grindley, & Kit. (1992). Information Systems issues facing senior executives: the culture gap. *The Journal of Strategic Information Systems*, 1(2), 57-62.
- Gray, E. (2004). *Doing research in the real world*. London/Thousand Oak/New Delhi: SAGE Publications Inc.
- Harvard Business Review . (2018). Your Strategic Plans Probably Aren't Strategic, or Even Plans. [online] Available at: [https://hbr.org/2018/04/Your-Strategic-Plans-Probably-Aren't-Strategic,or-Even-Plans](https://hbr.org/2018/04/Your-Strategic-Plans-Probably-Aren-t-Strategic-or-Even-Plans) [Accessed 24 Apr.2018]
- Henderson, J., & Sifonis, J. (1988). The Value of Strategic IS Planning: Understanding consistency, validity and IS markets. *MIS Quarterly* 12.
- Henderson, J., & Venkatraman, N. (1990). Strategic Alignment: A model for organizational transformation via information technology. *Cambridge, MA: Sloan School of Management, Massachusetts Institute of Technology*, 3223(90).
- Henderson, J., & Venkatraman, N. (1993). Strategic Alignment: Leveraging information technology for transforming organizations. *IBM Systems Journal*, 4-16.

- Henderson, J., & Venkatramen, N. (1989). Strategic Alignment:A Model for Organizational Transformation , in: Kocchan T Unseem M (Eds.). *Transforming Organizations OUP,New York*.
- Huang Z and Palvia P (2001) ERP implementation issues in advanced and developing countries. *Business Process Management* 7(3), 276–284.
- Hussin, H., King, M., and Cragg, P. 2002 “IT alignment in small firms,” *European Journal of Information Systems*, (11:2), pp. 108–127.
- IBM, C. (1981). Business Systems Planning-Information Systems Planning Guide. *GE20-0527-3*.
- IndustryLeadersMegazine. (2011, July 6). *the-parcel-service-that’s-cutting-costs-by-goinggreen-ups/* . Retrieved from <http://www.industryleadersmagazine.com>: <http://www.industryleadersmagazine.com/the-parcel-service-that’s-cutting-costs-by-goinggreen-ups/>
- Irani, Z. (2002). Information Systems Evaluation:Navigating through the problem domain. *Information Management*, 11-24.
- Kappelman, L., Johnson, V., McLean, E., & Gerhart, N. (2014, December 4). The 2014 SIM IT Key Issues and Trends Study. *MIS Quarterly Executive* , pp. 237-269.
- Kearns, G., & Lederer, A. (2003). A Resource-Based View of Strategic IT Alignment:How knowledge sharing creates competetive advantage. *Decision Science*, 1-29.
- Kenny, G. (2018, April 8). Retrieved from [www.linkedin.com](http://www.linkedin.com).
- Kothari, C. (2004). *Research Methodology Methods & Technique*. New Delhi : NEW AGE INTERNATIONAL (P) LIMITED, PUBLISHERS .
- Kvale, S., & Brinkmann, S. (2009). Interviews: Learning the craft of qualitative research. California, US: SAGE.
- King James Version (1611). London Public domain due to age, publication restrictions in the United Kingdom.
- Kirlidog M (1997) Information technology transfer to a developing country: executive information systems in Turkey. *OCLC Systems & Services* 13(3), 102–123.
- Labovitz, G., & Rosansky, V. (1997). The Power of Alignment. *John Wiley & Sons*.
- Leede, J. d., & Alders, J. L. (2002). Innovation,Improvement and Operations;An exploration of alignment. *International Journal of Technology Management*, 353-368.
- Luftman, J. (1996). Completing in the Information Age:Strategic Alignment in Practice. *Oxford University Press*.
- Luftman, J. (2003). Assessing It/Business Alignment. *Information Systems Management*, 9-15.
- Luftman, J. (2003). *Competing in the information age: Align in the sand*. Oxford University Press.

- Luftman, J. (2003, December). Measure Your Business-IT Alignment: The longstanding business-IT gap can be bridged with an assessment tool to rate your efforts. *Optimize Magazine*(22).
- Luftman, J. (2017). Enhancing the Measurement of Information Technology (IT) Business Alignment and Its Influence on Company Performance. *Journal of Information Technology*, 38-45.
- Luftman, J. N., Lewis, P., & Oldach, S. (1993). Transforming the enterprise: The alignment of business and information technology strategies. *IBM Systems Journal*, 32(1), 198-221.
- Luftman, J., & Brier, T. (1999). Achieving and sustaining business-IT alignment. *California management review*, 109-122.
- Luftman, J., & Brier, T. (1999). Achieving and Sustaining Business-IT Alignment. *California Management Review*, 42, 109-122.
- Luftman, J., Bullen, C., Liao, D., Nash, E., & Neumann, C. (2004). *Managing the Information Technology Resource*. New Jersey: Upper Saddle River, NJ: Prentice-Hall.
- Maes, R. (1999). A generic framework for Information Management. *Prima Vera Working Paper*.
- Maes, R., Rijsenbrij, D., Truijens, O., & Goedvolk, H. (2000). Redefining business – IT alignment through a unified framework. *PrimaVera Working Paper*.
- McGregor, S. L., & Murnane, J. A. (2010). Paradigm, methodology and method: intellectual integrity in consumer scholarship. *International Journal of Consumer Studies*.
- McLean, E., & Soden, J. (1977). *Strategic Planning for MIS*. New York: Wiley.
- Morton, S. (1991). *The Corporation of the 1990s*. Oxford University Press.
- Microsoft W. (2018). *Windows XP End os Support*. [online] Available at: <http://www.microsoft.com>: <http://www.microsoft.com/en-in/windowsforbusiness/end-of-xp-support> [Accessed 1 May. 2018].
- Nelson, M. L., Peterson, J., Rariden, R. L., & Sen, R. (2010). Transitioning to a business rule management service model: Case studies from the property and casualty insurance industry. *Information & Management*.
- Nelson, M., Peterson, J., Rariden, R. L., & Sen, R. (2010). Transitioning to a business rule management service model: Case studies from the. *Information & Management*, 47, 30-41.
- Neuman, W. (2003). *Social Research Methods: Qualitative and Quantitative Approaches*.
- O'Leary, Z. (2004). *The Essential Guide to Doing Research*. London: SAGE Publications Ltd.
- Osterwalder A (2003) ICT in developing countries: a cross-sectional snapshot. The Electronic Journal of Information Systems in Developing Countries [WWW document]

<http://www.hec.unil.ch/aosterwa/Documents/InternetInEmergingMarkets/Publications/ISGLOB03.pdf> (accessed 7 May 2010).

- Ozkan S, Cakir M and Bilgen S (2008) A maturity based qualitative information systems effectiveness evaluation of a public organization in Turkey. *Journal of Cases on Information Technology* 10(3), 58–71.
- Pare, G. (2004). Investigating information systems with positivist case research. *Communications of the Association for Information Systems (AIS)*, 13(8), 233-264.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Peak, D., Guynes, C., & Kroon, V. (2005). Information Technology Alignment Planing a case study. *Information & Management*(42), 636-649.
- Peppard, J., & Ward, J. (1999). ‘Mind the Gap’: diagnosing the relationship between the IT organisation and the rest of the business. *Journal of Strategic Information Systems*, 8, 29-60.
- Porter, M., & Miller, V. (1985). How information gives you competitive advantage. *Harvard Business Review*, 64(4), 149-160.
- Puvvala, A., Rai, V. K., & Patil, r. (2016). A Metrics Analysis Framework for IT Service Management. *The 34th International Conference of the System Dynamics Society*. New Delhi: Tata Consultancy Services.
- Reich, B. and Benbasat, I. 1996 “Measuring the linkage between business and information technology objectives”, *MIS Quarterly*, (20:1), pp. 55–81.
- Reich, B., & Benbasat, I. (2000). Factors that influence the social dimension of alignment between business and information technology objectives. *MIS Quarterly*, 24(1).
- Reporter, E. (2016, November 19). *Rethinking Ethiopia’s infrastructure drive*. Retrieved from <https://www.thereporterethiopia.com>: <https://www.thereporterethiopia.com/content/rethinking-ethiopia%E2%80%99s-infrastructure-drive>
- Reynolds, P. (2015). Aligning business and IT strategies in multi -business organizations.
- Rozendal, A., Lim, E. T., & Tan, C.-W. (2015). A Change for the Better:Realizing Business-IT Alignment Through Organizational Change. *Assosiation for Information Systems AIS Electronic Library (AIS)*(Paper 151), 5.
- Rusu, L., & Alaceva, C. (2015). Barriers in achieving business/IT alignment in a large Swedish company:What we have learned? *Computers in Human Behavior*.
- Rusu, L., & Gbangou, L. P. (2016, 09). Factors Hindering Business-IT Alignment in the Banking Sector of a Developing Country. *Procedia Computer Science*, 280 - 288.
- Rusu, L., & Jonathan, G. M. (2017). IT Alignment in Public Organizations:A Systemic Literature Review. *Integrated Series in Information Systems*, 38, 27-56.

- Sabherwal, R., & Chan, Y. E. (2001). Alignment Between Business and IS Strategies: A Study of Prospectors, Analyzers, and Defenders . *Information Systems Research*, 11-33.
- Sabherwal R. and Kirs, P. 1994 “The alignment between organizational critical success factors and information technology capability in academic institutions,” *Decision Sciences*, (25:2), pp. 301–330.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. London: Pearson Education Limited.
- Schein, E. (2004). *Organizational Culture and Leadership* (3rd ed.). Jossey-Bass.
- Sahay S and Avgerou C (2002) Introducing the special issue on information and communication technologies in developing countries. *The Information Society* 18(2), 73–76
- Schlosser, F., Wagner, H., & Coltman, T. (2012). Reconsidering the Dimensions of Business-IT Alignment. *45th Hawaii International Conference on System Sciences*.
- Singh, Y. K. (2006). *Fundamental of Research Methodology and Statistics*. New Delhi: New Age International (P) Limited.
- Silva LO (2002) Outsourcing as an improvisation: a case study in Latin America. *The Information Society* 18(2), 129–138.
- Smaczny, T. (2001). IS an Alignment between Business and IT the Appropriate Paradigm to Manage IT in Today's Organization? *Management Decision*, 39(10), 797-802.
- Stake, R. (1995). The art of case study research. *Thousand Oaks*.
- Teo, T., & Ang, J. (1999). Critical Success Factors in the Alignment of IS Plans with Business Plans. *International Journal of Information Management*, 19(1), 173–185.
- Venkatraman, N. (1989). The Concept of Fit in Strategy Research: Toward verbal and statistical correspondence. *Academy of Management Review* 14(3), 423–444.
- Venkatraman, N. (2000). Five Steps to a Dot-Com strategy:HOW to find your footing on the web. *Solan Management Review*, 41(3), 15-28.
- Webster, J., & Watson, R. (2002). Analysing the past to prepare for the future: writing a literature review. *MIS Quarterly*, 26(2), 13-23.
- Weil, P., & Broadbent, M. (1998). Leveraging the new Infrastructure. *Harvard Business School Press*.
- Weill, P., & Broadbent, M. (1998). Leveraging the New Infrastructure. *Harvard Business School Press*.
- Yahya AH (1993) On the problems of information technology management in developing nation. In *Proceedings of the 1993 Conference on Computer Personnel Research* (Tanniru, MR Ed.), p 349, ACM Publications, St Louis, Missouri.
- Yayla, A. A., & Hu, Q. (2012). The impact of IT-business strategic alignment on firm performance in a developing country setting: exploring moderating roles of

environmental uncertainty and strategic orientation. *European Journal of Information Systems*, 373–387.

Yin, R. K. (2009). *Case Study Research Design and Methods* (4th ed., Vol. 5). Los Angeles: Sage.

Zegeye, A., Worku, A., Tefera, D., Getu, M., & Sileshi, Y. (2009). *Introduction to Research Methods*. Addis Ababa: Graduate Studies and Research Office of Addis Ababa University.

# APPENDICES

## APPENDIX-A:

Semi-structured interview objectives notification to participants

### The Semi-Structured Interview for Company-A's Directors, Managers and Officers



Addis Ababa University  
College of Natural and Computational Sciences  
School of Information Science

This interview has been designed to gather data for the fulfillment of the thesis requirement for the Degree of Master of Science in Information Science. Thank you for participating in the interview on “**Bridging the Gap Between IT Strategy and Business Strategy: Exploring Strategic Alignment Gap**”.

The report of this study's findings will be handed to each individual that participate in the interview. This is to justify the transparency for each interviewee.

Participation in this study is voluntary. You may decline any interview questions that you do not wish to answer. There are no known or anticipated risks from participating in this study. Because of the potentially sensitive nature of the study, every effort has been made to protect your anonymity. The data collected from the survey will be maintained on the researcher's computer and the replied interview will be properly locked. The data will never be shared with others without your prior consent. If you require further information on this study, or have any questions or suggestions, please contact me directly at (king.solomon@aau.edu.et / alignmentgap@gmail.com and +251911422712).

#### Objective/aim of the interview

1. To identify the concept of alignment gap between business strategy and IT strategy, which is the issue that represented the obstacle to achieve successful strategic alignment;
2. To find out how can organizations manages business-IT strategic alignment through bridging the alignment gap between business strategy and IT strategy;
3. To know critical factors that enable and inhibit business-IT strategic alignment;
4. To investigate whether business-IT strategic alignment gap existed in your company
5. To investigate the reason why business-IT strategic alignment gap exist in your organization and
6. To detect best ways to bridge the business-IT strategic alignment gap

## APPENDIX-B:

Semi-structured interview questions

It's prepared based on the original idea of Luftman & Brier (1999) and Chan & Reich (2007).

**Table B-1: To detect whether gaps exist**

No.	Questions
1	Does your department have strategy (business or IT)? If so, could you please explain me in detail?
1	What is the nature of the relationships between Business and IT strategy? Does IT play a role in shaping new business strategies, or does it play a supporting role in executing current business strategy?
2	Is there an alignment gap between business strategy and IT strategy? If so, please describe why this strategic alignment gap exists?
3	Could you please describe us critical factors that can inhibit or enable business-IT strategic alignment?
4	Could you please explain me your experience about how you manage IT related tasks?

**Table B-2: To detect challenges in attaining alignment**

No.	Questions
1	How does the organization's IT strategy support the business demand/requirements?
2	How do you explain your knowledge towards corporate strategy?
3	Could you please explain me about your organization's key business and industry drivers?
4	Could you please explain me the importance of business-IT strategic alignment?
5	What is your perspective towards the status of IT with in the business unit?
6	How do you manage the time lag between business and IT planning processes
7	How do you explain your knowledge of the banking industry?

## APPENDIX-C

### STRUCTURED INTERVIEW GUIDE

Modified the questionnaire instrument of Luftman (2017) to its primarily objective which was used as an interview or group discussion guide; in the beginning the questionnaire intended to use as interview guide in order to collect 80% of the data via interviews to assess SAM's six dimensions. This thesis used full time to make the original objective of the interview in to reality. In that way this study collected 100% of the data via interview.

*Note. Adopted with modification of Luftman (2017)*

DIMENSION DEFINITION	IT AND BUSINESS RELATED ACTIVITIES	INTERVIEW QUESTIONS	AVERAGE SCORES
<b>PART I: EFFECTIVENESS OF IT AND BUSINESS COMMUNICATIONS</b>			
<b>COMMUNICATIONS</b> measures the level and effectiveness of the exchange of ideas, knowledge, and information between IT and business organizations which enables both to understand the respective strategies, plans, business and IT environments, risks, priorities.	C1 -Understanding of Business by IT C2 -Understanding of IT by Business C3 -Inter-organizational Learning/Education C4 -Protocol Rigidity C5 -Knowledge Sharing C6 -Liaison Effectiveness	Q.1 Could you please choose the one response closely represented your opinion of the effectiveness of communications towards the extent does IT understand the organization's business environment in your organization? <b>Further clarification: -</b> Business environment includes customers, competitors, processes, partners/alliances	1 Senior and mid-level IT managers do not understand the business. 2 Senior and mid-level IT managers have a limited understanding of the business. 3 Senior and mid-level IT managers have a good understanding of the business. 4 Understanding of the business by all IT members is encouraged and promoted by senior managers. 5 Understanding of the business is required (e.g., tied to performance appraisals) throughout the IT function. 6 N/A or don't know
		Q.2 Could you please choose the one response closely represented your opinion of the effectiveness of communications towards the extent does the business organizations understand the IT environment in your organization?	1. Senior and mid-level business managers do not understand IT. 2. Senior and mid-level business managers have a limited understanding of IT. 3. Senior and mid-level business managers have a good understanding of IT. 4. Understanding of IT by all employees is encouraged and promoted by senior management.


<b>PART II: MEASUREMENT OF THE COMPETENCY AND VALUE OF IT</b>			




<b>PART III: IT GOVERNANCE</b>			


<b>PART IV: PARTNERSHIPS BETWEEN IT AND BUSINESS FUNCTIONS</b>			


<b>PART V: SCOPE AND ARCHITECTURE OF THE IT INFRASTRUCTURE</b>			

<b>PART VI: HUMAN RESOURCE SKILLS</b>			

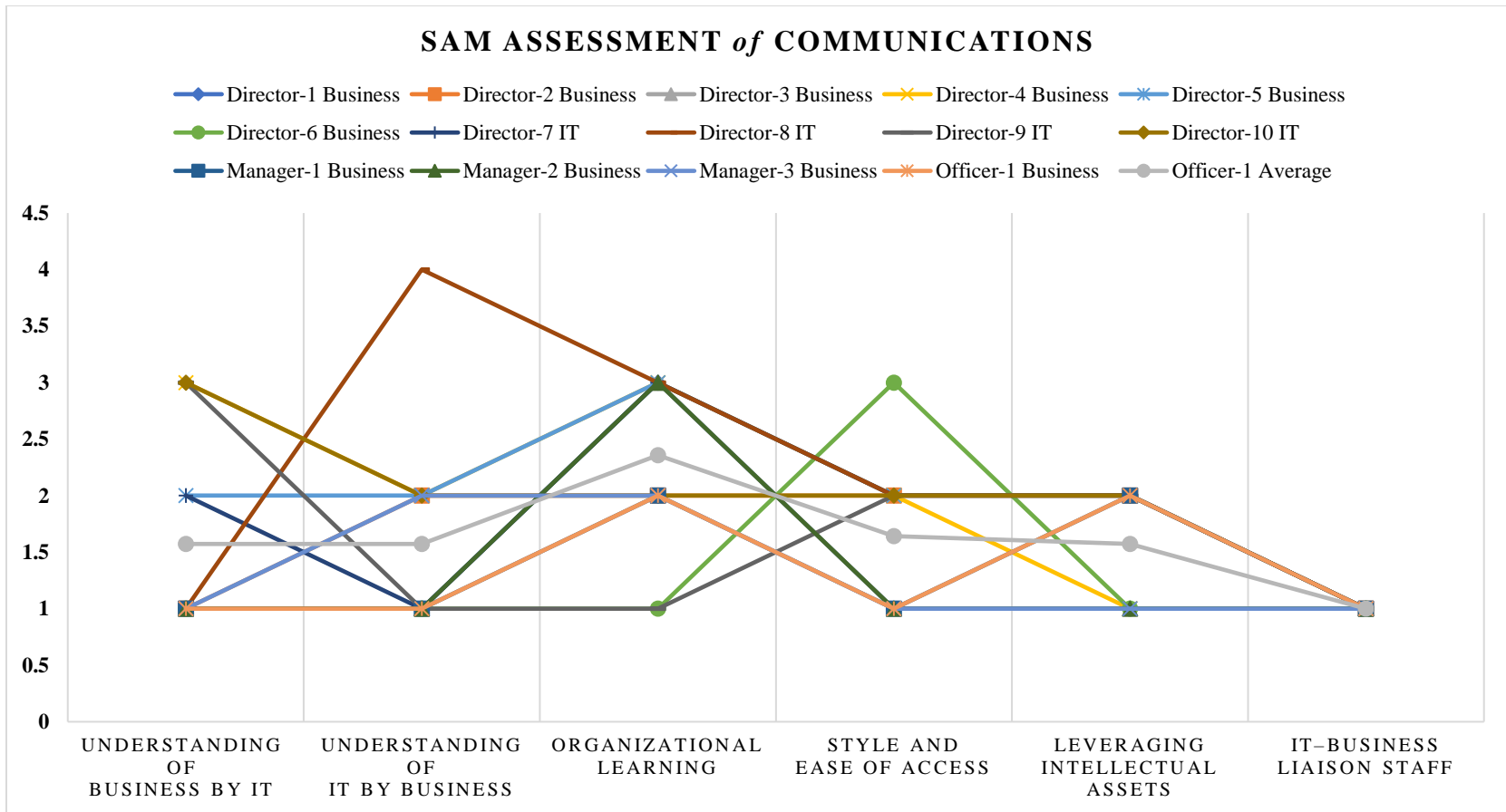


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**APPENDIX-D**

Strategic Alignment Maturity Assessment of Company-A

*Table D-1. Company-A's SAM Assessment of communications*



*Figure D-1. Company-A's SAM Assessment of communications (Graphical Representation)*

*Table D-2. Company-A's SAM Assessment of Competency/Value Measurements*

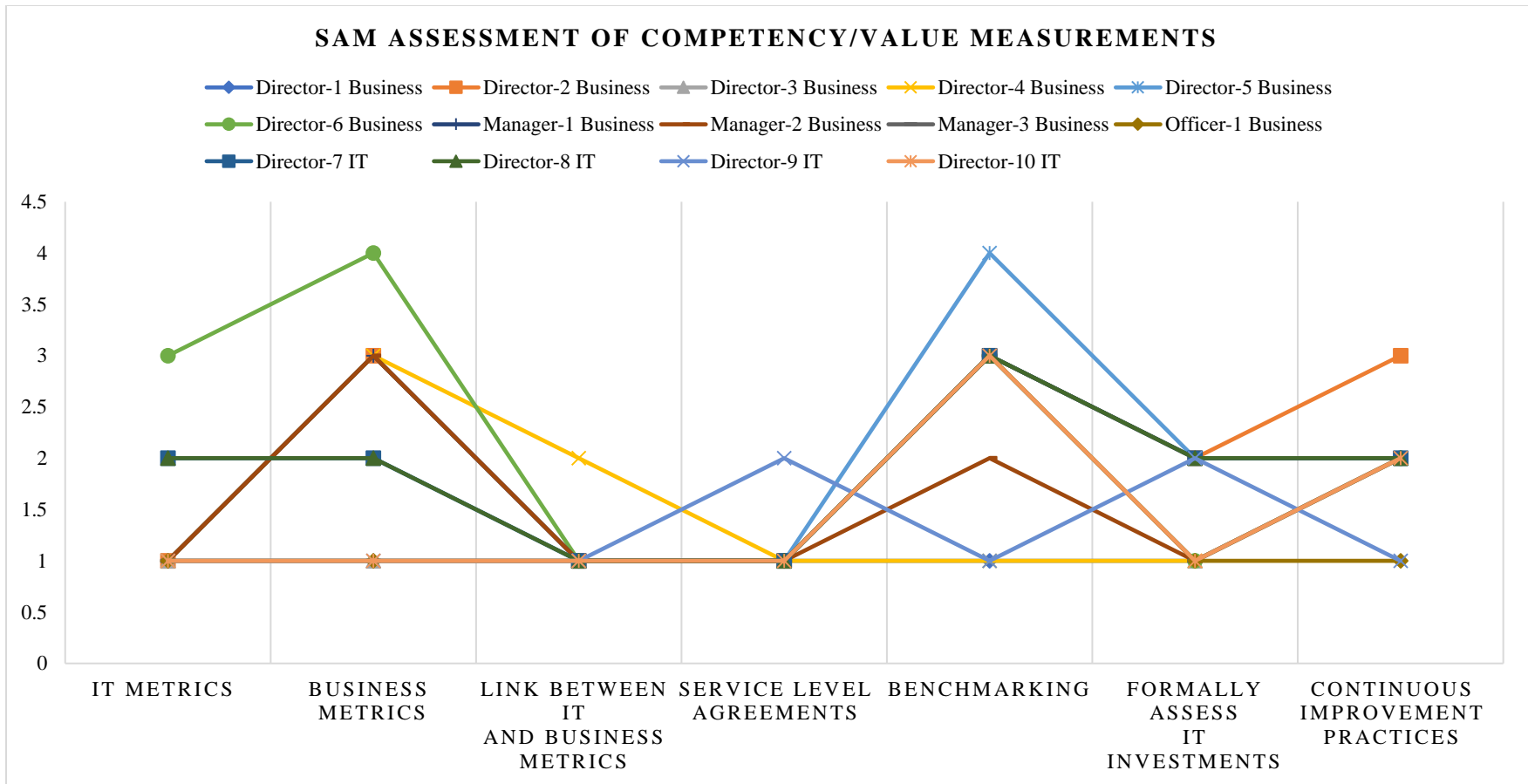


Figure D-2. Company-A's SAM Assessment of Competency/Value Measurements (Graphical Representation)

*Table D-3. Company-A's SAM Assessment of Governance Measurements*

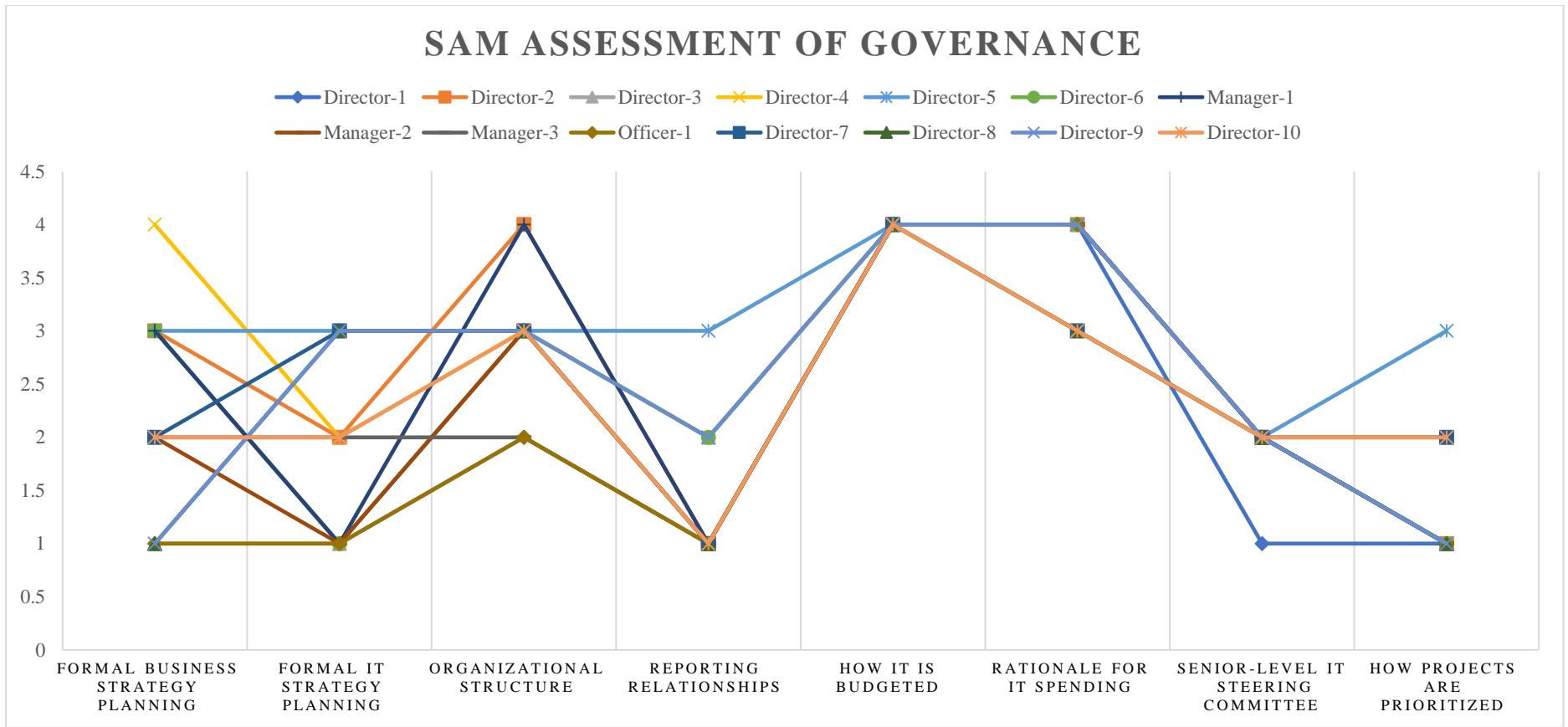


Figure D-3. Company-A's SAM Assessment of Governance (Graphical Representation)

*Table D-4. Company-A's SAM Assessment of Partnership*

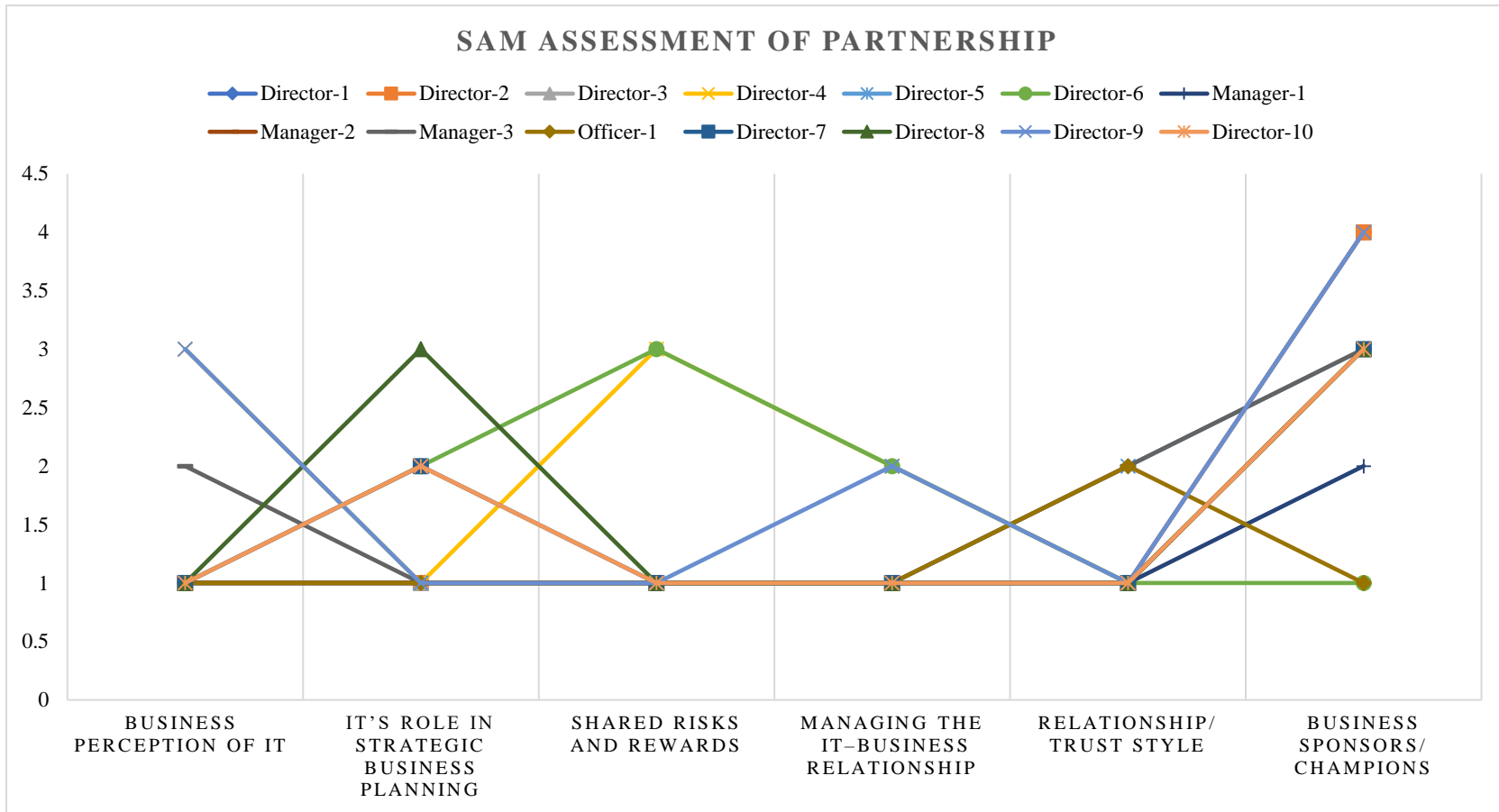


Figure D-4. Company-A's SAM Assessment of Partnership (Graphical Representation)

*Table D-5. Company-A's SAM Assessment of Scope and Architecture*

## SAM ASSESSMENT OF SCOPE and ARCHITECTURE

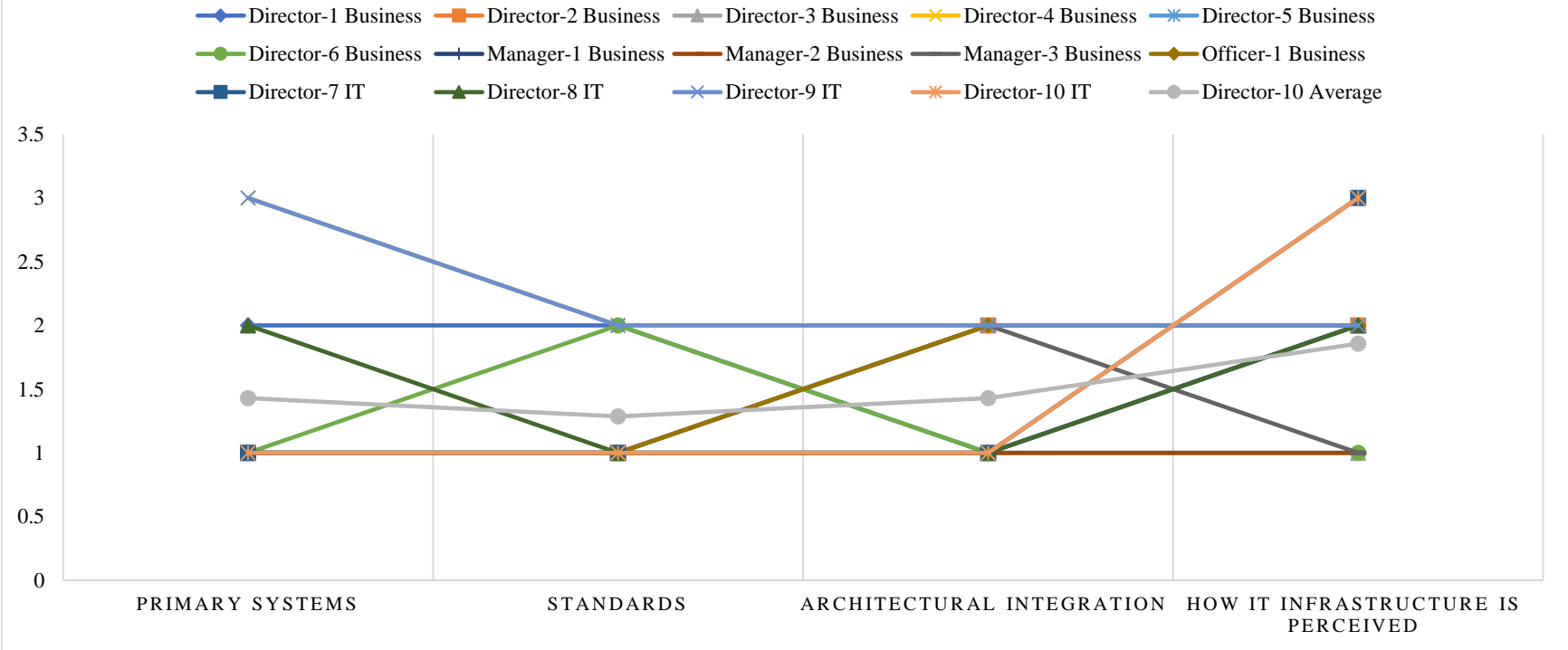
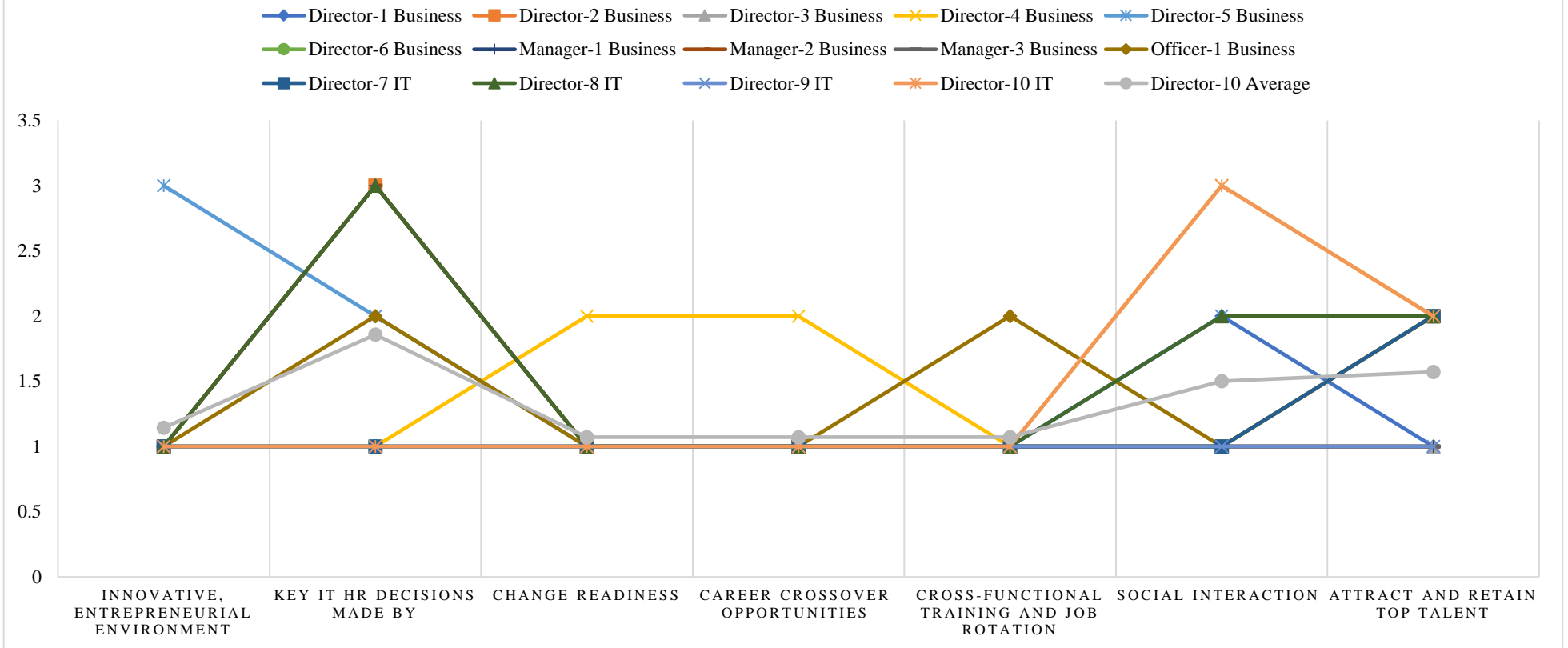


Figure D-5. Company-A's SAM Assessment of Scope and Architecture (Graphical Representation)

*Table D-6. SAM Assessment of Skills*

## SAM ASSESSMENT OF SKILLS



*Figure D-6. SAM Assessment of Skills (Graphical Representation)*