

Does the executive perception of the Value of information technology (IT) influence the IT strategy? A case Study

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Abstract

Information Technology (IT) constitutes a significant part of a firm's investment. IT leaders struggle to communicate IT's value to stakeholders. Often, they focus on technology and operational performance metrics that bore business leaders and fail to convey IT's value to the business (Nagel & Ganl, 2020). Perception plays a vital role in an individual's decisions making process. It is essential to understand executives' perceived "value of IT" in the firm and examine whether executives' perceptions of the "value of IT" influence the development of the firm's IT strategy. This study explores this relationship using a qualitative case study as a methodology. The results suggest that the perception of the "value of IT" influences IT strategy development in organizations. It is crucial to be able to communicate this value at multiple levels. Decision-makers in organizations perceive the "value of IT" differently based on their roles and experiences. Implications are drawn, and future research directions are proposed.

Keywords: IT Strategy, Business Value of IT, qualitative study, case study, governance

1. INTRODUCTION

Around 63% of Information technology (IT) executives struggle to communicate IT's value (Nagel & Ganl, 2020). IT constitutes a significant part of a firm's investment. Worldwide spending on IT is expected to grow across major sectors of the economy and reach \$3.4 trillion by the end of the year 2020 (Gartner, 2020). IT spending forecasts indicate that IT is recognized as a critical resource that creates sustainable business value. However, this assumption has not always been shared by business leaders or executives. The IT leadership of organizations criticizes that business stakeholders perceive IT more as a cost center than the cost of doing business (CIO.com, 2013). This criticism could be partly because

many business executives distrust IT and consider investing in IT as irresponsible spending (Flood, 2013). IT Leaders often focus on technology and operational performance metrics that bore business leaders and fail to convey IT's value to the business. Business executives in organizations perceive that investment in IT does not provide expected returns.

Business leaders' views differ on the "value of IT" and "goals of IT" in the organization. These differences are significant as it influences the scale and direction of IT investment decisions and the extent to which IT investment impacts firm performance (Kiessel, 2012). Business leaders & executives' perception plays a crucial role in assessing the impacts of IT on their business. The

unstructured nature of the understanding of the relationship of the value of IT and its implications of business makes the executive perceptions of these constructs even more critical. Executives' positive perception of IT builds confidence and encourages leaders to focus on IT not only as operational but also as a strategic tool (Porter, 1996). A study about executives' perception of IT value and its impact on IT strategy is warranted.

Kohli and Grover (2008) argue that IT investments are not monolithic, and IT creates a plethora of information that needs to be harnessed to create or enhance value. The value of IT, when intentionally linked to the business model of the organization, enables a firm to do its business better (McKeen & Smith, 2012). IT in organizations has evolved to the point where its goal is not only to enable the company but also to improve and to transform the organization's capabilities (McDonald, 2007). Leadership in organizations acknowledges that IT is critical to an organization's success, and it directly impacts the mechanisms through which businesses create and capture value to earn a profit (Drnevich & Croson, 2013). Researchers and business managers consider IT investment as an enabler for improved organizational efficiency and competitiveness (Kohli & Devaraj, 2003). The considerable investment in IT demands that IT and business executives work together and layout strategy to achieve the organizational objectives and transform IT from a cost center into a strategic partner to gain competitive advantage. There is no clarity if IT's value in business is providing the competitive advantage the organizations seek from information technology mechanisms. The goal of this research study is to understand the executives' perception of the "value of IT" and their perceived value of IT on the IT strategy of the firm. The specific research questions posed in this study are:

RQ1. What are executives' perceptions of the value of IT in a firm?

RQ2. Does the executives' perception of the value of IT influence the IT strategy of a firm?

The next section presents a literature review section followed by the case study.

2. LITERATURE REVIEW

It is challenging to identify robust methods to measure the value created by IT in a firm. The business value of IT research focuses on the relationship between information technology investment and firm performance (Melville et al.,

2004). Gerow et. al. (2014) define firm performance in terms of three over-arching types: financial performance, productivity, and customer benefit. Financial performance is the firm's ability to gain competitive advantage and, therefore, higher profits or stock value. Productivity is the measure of the contribution of various inputs to total outputs. Customer benefit is the full benefit that a given purchase confers to consumers. Resource-based theory (RBT) has been frequently used by information system researchers to examine and understand the relationship between information technology investment and firm performance (Bharadwaj, 2000; Chae et al., 2013; Melville et al., 2004; Shaw et al., 2013; Wade & Hulland, 2004).

Contingency theory postulates that alignment between the patterns of relevant contextual, structural, and strategic factors leads to superior firm performance (Oh & Pinsonneault, 2007). Several studies show that the strategic alignment of IT affects firm performance, and IT alignment is positively associated with perceived organization performance (Kearns & Lederer, 2001; Sabherwal & Kirs, 1994).

Masli et al. (2011) synthesize the empirical archival research investigating the link information technology investment and business value. Investment in IT has been positively associated with earning volatility, market valuation and short-and long term abnormal returns, contribution to productivity and consumer value and subsequent firm performance and shareholder return (Henderson, Kobelsky, Richardson, & Smith, 2010; Hitt & Brynjolfsson, 1996; Kobelsky et al., 2008). To examine the business value of IT in a firm, many researchers propose to measure IT capability rather than IT investment (Bharadwaj, 2000; Mithas, Ramasubbu, & Sambamurthy, 2011; Rai et al., 2012).

Santhanam and Hartono (2003) suggest that firms with superior IT capability reveal superior current and sustained firm performance when compared to average industry performance. IT investment has served to increase firm productivity and consumer value. Investments in IT are creating significant intangible benefits to the firm (Bharadwaj et al., 1999).

Kohli & Grover (2008) say, "IT with its complementary resources can create value at a functional level or firm level. We can understand how to create differential value by extending our knowledge of complementary and mediating factors in the value creation process. Thus using

this method, we get a better understanding of how IT investments interact with mediating factors (e.g., organizational changes, complementary resources, alignment, capabilities) to create the value of different types (productivity, processes, profit) and levels (individual, firm)". IT enhances the firm's current capabilities and enables flexibility to focus on rapidly changing opportunities or to losing initiatives while preserving essential asset value. Thus, investment in IT and complementary organizational capabilities considerably refine the set of business-level strategic alternative and value-creation opportunities that organizations may pursue (Drnevich & Croson, 2013).

Kraemer et al. (1999) found that management practices play an essential role in creating IT business value and in turning strategic intent for IT into position payoff for the business. IT positively impacts firm performance at multiple points along the value chain (Tallon et al., 2000). IT creates a lot of information that needs to be harnessed to create or enhance value. The reporting structure of the chief information officer (CIO) in an organization reflects the visibility that IT gets in the boardroom (McKeen & Smith, 2012). When Chief Information Officer (CIO) reports to the Chief Executive Officer (CEO) and is a part of senior management, the IT division can form valuable partnerships and involve them in technical planning and execution.

IT governance structure in an organization focuses on setting up the control structure to manage risks and returns by reducing transaction costs and incentivizing new value co-creation (Grover & Kohli, 2012). Cramm (2010) argues that IT is instrumental in lowering day-to-day operational costs and mitigating operational business risks. IT value is achieved through exploitation of resources by performing daily business activities more efficiently (Lin & Shao, 2000; Newell et al., 2003; Xue et al., 2012)

The researcher takes the firm performance into account when investigating organizational phenomena such as firms structure, strategy, and planning (Dess & Robinson, 1984). There are three perspectives frequently used to conceptualize firm performance in the research literature (Ford & Schellenberg, 1982): goal approach, system resource approach, and process approach. The goal approach provides a framework to assess the firm performance based upon explicit or identifiable goals which the firm aims to pursue. The system resource approach emphasizes the relationship between the firm and its internal and external environment. The

process approach assesses firm performance in terms of the behavior of firm participants (Tallon, 2007). This study adopts the process approach to determine the value of IT in a firm. In the process approach, firm performance is assessed in terms of the behavior of firm participants.

3. CASE STUDY

The research methodology employed for this research paper is a single case study. The case study research method is best suited for providing an in-depth understating of a case or cases (Creswell, 2012). A case could be an organization, group, individual, social, political, and related phenomena. Mid-Atlantic Financial Institution (MAFI), a pseudonym, was given to the research site for the context of this research study. Also, MAFI is being referred to as "the firm" in this paper. MAFI is a co-operative financial institution. The customers are required to have a membership in the firm. The customers share ownership of the firm, along with other member financial firms. MAFI's mission is to provide low-cost liquidity to its customers and enhance the quality of the communities it serves. An independent Board of Directors and executive committee govern the firm. The executive committee consists of President, CEO, COO, Chief Strategy Officer (CSO), CFO, Chief Risk Officer (CRO), and General Counsel (GC). The CIO leads the information technology department and reports to the COO of the firm. There are seven committees: Executive Committee, Audit Committee, Finance Committee, Risk Committee, Human Resource Committee, Product and Service Committee, and Governance and Public Policy Committee. These seven committees report to the Board of Directors and are formed by members of the senior management team of the firm. Each committee is led by one of the executive committee members.

4. RESULTS & DISCUSSION

RQ 1. What are executives' perceptions of the value of IT in a firm?

Value is the worth or desirability of a thing and is assessed subjectively. An individual IT value perspective is a composite of several factors such as preconceived ideas about IT as a whole that influences value expectation, the role that the individual plays in an organization, the individual's value system, and the IT culture of the organization (Cronk & Fitzgerald, 1999). IT value is a multilayered business construct that must be effectively managed at several levels if the technology is to achieve the benefits

expected. Strategic positioning, increased productivity, improved decision making, cost-saving, and improved service are some of the examples of how value could be defined (Smith et al., 2007, p. 2). Data suggest that IT value is perceived to be high in MAFI. As one of the senior executives described the value of IT as:

The value of IT is immense. Without IT, we would not have the financial industry anymore. We will not be competitive with other firms. More and more, our clients rely on technology to transact business. A company being good in IT is probably imperative to growth prospects.

Three emergent factors influence an individual's perception of the value of IT:

(1) nature of the current job role, (2) organizational position, and (3) past work experience. The executives' perceived value of IT at MAFI could be understood better by exploring executive's perception of investment in information technology (IT), perception of IT governance, perception of services delivered to customers via the online channel, perception of IT infrastructure, and perception of IT infrastructure flexibility.

IT Investment

There are different levels of understanding that managers have regarding the complexity of the IT expenditure. As IT evolves within a company from operational to informational, the assignment of a dollar amount to the value of the benefits derived becomes more difficult (Matlin, 1979). To understand the perception of IT investment of the executives at MAFI, following probing question was asked:

In your experience from the last 3-5 years, did this organization make adequate investment in information technology?

The majority of the participants (IT/ non-IT/ senior management/ mid-level management/managers) agree that IT investments are critical to the organization's success. There have been significant and thoughtful investments in IT projects over the last five years in the organization. One executive shared his view on IT investment as: "I think we made an adequate investment. I think a steady pace of IT investment in terms of dollars has been very good with well-defined processes. The investments in IT were regulatory-driven and on core systems of the bank. However, few participants feel that resource constraints at MAFI are causing inadequate investment in IT. One of

the business executives shared his disappointment in the IT investment scenario: "I would grade average 'C' as of IT investment goes. We don't allocate any type of capital expenditure for any large project."

Business and IT alignment is an essential driving force to achieve business value through investment in IT. IT governance enables business/IT alignment, which allows business value from IT investments (Van Grembergen & De Haes, 2009, p. 6). The next section presents the executives' perception of IT governance at MAFI.

IT Governance

"IT governance is the responsibility of executives and the board of directors and consists of the leadership, organizational structures, and processes that ensure that the enterprise's IT sustains and extends the organization's strategy and objectives" (Van Grembergen & De Haes, 2009, p. 3). At MAFI, the IT governance committee is responsible for IT project prioritization and budget allocation, business/IT strategic alignment, assessment of services provided by IT and review and development of policy and procedures around IT. One of the senior executives described the IT governance committee as:

IT is one of the many components that gets reported to the board of directors. Critical system availabilities and security matrix are reported and communicate effectively on a need to know basis. Another business executive said that "There are lots of crucial discussions occur at IT governance steering committee. There is a proper step to provide approval. Committee members are allowed to have a conflicting opinion. It improves the governance of IT".

At MAFI, there is a methodological approach in place to assess IT. External auditors assess IT periodically, whereas the internal audit and compliance team performs penetration testing regularly.

The purpose of IT governance is to control the process of formulating and implementing IT strategy and ensuring that it assists business in achieving its objective (Van Grembergen & De Haes, 2009). The alignment between business and IT strategy increases profitability and generates a sustainable competitive advantage. Failure to align results in wasted resources in IT initiatives has adverse organizational outcomes (Gerow et al., 2014).

Service Delivery Channel

The customer perspective of a balanced scorecard framework delineates how the firm's value proposition (products, services, brand, relationship with the customer) delivers customer value (Masli et al., 2011). To understand the executive perception of online services enabled by IT, following probing question was asked:

Does our customer value services that are delivered through an online channel?

As one of the senior executives said, "Absolutely, our customers value services that are delivered through an online channel. The bulk of our everyday routine transactions are done through the online channel. The customers highly value the online channel based on our end users' customer survey". One of the business executives described the importance of online services as "we have very high usages of the services that are available online. At times when the online channel is not available, it is a major problem, and the customers are not happy about it". At MAFI, the products and services provided via the online channel are perceived as valuable to its customers. The next section presents the perception of IT flexibility at MAFI.

IT Infrastructure Flexibility

IT infrastructure flexibility is defined as "the ability to easily and readily diffuse or support a wide variety of hardware, software, communication technologies, data, core applications, skills and competencies, commitments and values within the technical, physical base and the human component of the existing IT infrastructure" (Byrd & Turner, 2000). IT infrastructure flexibility is an organizational core competency that is necessary for an organization to respond to opportunities as they arise, whether these are client relationships or new products or new service release in rapidly-changing, competitive, business environments (Chung et al., 2003). Two themes have emerged about the perception of IT infrastructure flexibility at MAFI: 1) acknowledgment of the importance of IT flexibility, 2) lack of IT flexibility in vendor products, and resources (people and cost).

Figure 1 shows that the factors leading to the perceived value of IT are: IT investment, IT governance, online services, IT infrastructure flexibility, and management support. Further analysis of the data suggests that the individual perception of IT is influenced by the participant's nature of the job, past work experiences, and their current organizational role. These perceptions of IT lead to three prominent themes about the value of IT:

- Efficiency and Productivity
- Manage risks
- Product and service delivery channel

Appendix Figure 1

Efficiency and Productivity

Traditionally IT has been instrumental in reducing ongoing "lights-on" costs and mitigating operational business risks (Cramm, 2010). The firm invests in IT to improve efficiency and enhance the productivity of its existing business operations by reducing inventory, substituting labor, or eliminating waste. IT value is achieved through the exploitation of performing existing activities more efficiently (Lin & Shao, 2000; Newell et al., 2003; Xue et al., 2012). One of the senior executives at MAFI said that "IT is dynamic in the financial world. We have to look for ways to substitute technology to improve our productivity. I see IT [as a means] to streamline processes, make the system better, re-engineering old ways of doing things, and increase productivity and efficiency". Another executive said that "Value of IT is very strong here. The firm is interested in investing in IT for efficiency purposes". The business manager shared a similar sentiment, "To me, IT value is in support of advancing business efficiency."

Product and Service Delivery Channel

The financial industry emphasizes seamless multi-channel integration to serve its clients better and improve customer relationships. Financial institutions usually encourage their customers to adopt low-cost channels over high-cost channels for business transactions (Kanchan, 2012). The use of an online channel for product and service delivery is encouraged at MAFI. One of the business managers commented, "In today's world, a business would have been in trouble without IT. I think IT brings a lot of value. We provide online service to our customers. Online services help our customers to do their business quicker, cheaper and efficiently"

Managing Risks

Risk is a multilayered concept that implies the possibility of loss or exposure to loss or even a hazard, uncertainty, or opportunity (McKeen & Smith, 2012). Risks can be classified into known knowns, known unknowns, and unknown unknowns (Wu, Chen, & Olson, 2014). The IT-based risk to the firm includes anything that affects its: brand, reputation, financial value, competitiveness, and customer experience (Aula, 2010; McKeen & Smith, 2012; Taleb, Goldstein, & Spitznagel, 2009). At MAFI, managing risk is

part of the business strategy and is a key priority for senior management. IT is instrumental in managing risk at MAFI. A broad range of external and internal IT-based risk can affect the firm. IT-based external risks can come from: (1) third parties such as software vendor, service providers, customers or partners, (2) natural or human-induced disasters, hazards, epidemic, pandemics, etc. and (3) failure to comply with regulations with industry-specific laws, policy or procedures. IT-based internal risk can come from (1) inadequate IT governance, (2) ineffective internal controls to prevent or mitigate risk incidents, (3) poorly designed business processes, and interruption in IT-supported business operations (McKeen & Smith, 2012, p. 266).

RQ 2 . Does the executive's perception of the value of IT influence the IT strategy of a firm?

A conceptual mapping of emergent themes of the perceived value of IT and the current IT strategy of the firm is presented in table 1.0. The table maps the current IT strategy objectives at MAFI to the perceived value of IT and helps to understand the influence of perception of IT on IT strategy. The mapping considers the primary and secondary impact of the perceived value of IT on a specific IT strategy objective.

Appendix Table 1

The primary influence in this context means the particular value of IT has a higher scope or broader impact on the linked IT strategy objective compared to other values of IT. The secondary influence in this context means the particular value of IT has an indirect effect or narrow scope on the linked IT strategy objective. For example, in table 1.0, the IT strategy objective "Implementation of easy-to-use tools for tracking interactions with customers" does get influenced by multiple values of IT in a primary (P) manner. This relationship implies its scope as a broadly defined and secondary (S) manner indicating its narrow scope. The IT strategy objective "Create a balanced approach regarding risks, costs, and benefits in managing risks" shows the only primary influence of the value of IT as "Managing risks." The next section provides the descriptive analysis of the influence of the perceived value of IT as "Managing risks" on current IT strategy objectives, the influence of the perceived value of IT as "Efficiency & Productivity" on current IT strategy objectives and the influence of the perceived value of IT as "Products & Services delivery channel" on current IT strategy objectives.

The IT strategy objective, "Identify emerging security risks and develop a plan to mitigate the risks," adds value to business by ensuring that there is an ongoing awareness of emerging security risks. This objective ensures that policies, procedures, and tools are in place to mitigate security risks. The IT strategy objective "Provide reasonable protection against the most likely cyber threats while maintaining business operation" adds value to business by providing required technical capabilities to safeguard IT assets and IT infrastructure. The IT strategy objective "Modernize the technology platform" adds value to business by addressing future technology needs for the company. The IT strategy objectives "Develop and implement enterprise data backup and recovery solution consistent with emergent technologies," "Develop and maintain secure, reliable, scalable and flexible IT infrastructure," "Provide flexibility to run production systems from multiple sites" and "Develop comprehensive remote computing solution for business recovery" are focused on advancing IT infrastructure. These IT strategic objectives add value to business by ensuring business system/applications & data integrity, accuracy, security, and quality to sustain and to provide effective, efficient, and uninterrupted service by reducing the operational risk in any given scenario such as system failure and natural disaster or human-induced disaster. The IT strategy objective "Develop and implement policy and procedure around vendor management to ensure uninterrupted business" adds value to business by providing a framework. This framework enables the firm to develop, manage, and control vendor contracts, relationships, and performance for the efficient delivery of contracted products and services while reducing operational risks caused by a third-party vendor. The IT strategy objective "Create a balanced approach regarding risks, costs and benefits in managing risks" adds value to business by developing a framework to introduce new technology delivery capabilities while understanding the conservative nature of the firm and its risk appetite.

5. CONCLUSION AND IMPLICATIONS

The conceptual mapping of the value of IT and IT strategy objectives reflects the executive's perception of the influence of the value of IT in determining the strategic objectives of information technology IT in a firm. There is no standard model to measure IT value. Some organizations define IT value by rate-of-return measurement, such as return on investment, while other organizations perceive IT value

resulting from having the standard processes across the organization. Another way of measuring the value of IT is by using a set of standard matrices such as key performance indicators, system availability, or service level agreement. Melville et al. (2004) argue that the dimension and the extent of IT value depend on a variety of factors, including the type of IT, management practices, and organization structure. Groups and individuals perceive the value of IT to an organization differently. Value varies depending on where one looks for it (McKeen & Smith, 2012, p. 3). Three influential factors emerged, informing the individuals' perception of the value of IT :

- nature of job
- past work experience
- organizational position

The value of IT is usually classified into two broad categories: tangible value and intangible value. Tangible value generally gets measured in financial post hoc metrics or even ex-ante market value (Kohli & Grover, 2008; Matlin, 1979). Intangible value reflects a broader range of value base upon observation of practice. Businesses and customers are the final judges of value creation. Characteristics such as flexibility, agility, and customer services could be the criteria for assessing the intangible value of IT (Kohli & Grover, 2008). At MAFI, the value of IT is perceived as:

- Value of IT on the defensive side of the business model

On the defensive side, IT adds value to the business through enterprise risks management, operational risks management, market analysis, financial model simulations, assessment, and scenario forecasting, accounting, and regulatory and compliance type activities. One of the executives said, "I don't think what we are doing offensively, we would be able to do business without IT." Another business executive shared a similar view as, "In the absence of IT, we would not be able to leverage and take a particular risk to help provide the financial return to our customers."

The emerged perceived value of IT themes "Managing risks" and "efficiency and productivity" fall under the defensive side of the business model.

- Value of IT on the offensive side of the business model

On the offensive side, IT adds value by providing products and services to customers. One of the executives said that "Our customers love our online business application portal. The bulk of everyday routine transactions are done via the online portal". The emerged perceived value of the IT theme "Products and services delivery channel" falls under the offensive side of the business model.

IT value is recognized in uplifting business productivity and increasing efficiency. The value of IT is known for providing technology channels to deliver products and services to customers, partners, and vendors. IT contributes to the effective management of business risk by understanding threats and vulnerabilities and identifying ways to mitigate the risks. IT value is recognized in managing business risk. At MAFI, C-level executives, mid-level management, and managers perceived the value of IT in:

- managing risks
- increasing efficiency & productivity
- products & services delivery channel

The current IT strategy reflects these IT values. Table 1 demonstrates that each IT strategy objective is influenced by one or more of the above-mentioned values of IT. The IT strategy objective "Provide flexible system to implement new product" is influenced by the primarily perceived value of IT "efficiency & productivity." The IT strategy objective "Provide easy access to products and services" is influenced by the primary perceived value of IT "Products and Services delivery channel" and secondary perceived value of IT "efficiency & productivity." Based on the findings, it can be concluded that the perceived value of IT does influence the IT strategy of the firm. A relationship can be inferred based on the data (see Figure 2).

Appendix Figure 2

In an organization, The perceived value of IT does influence the development of the IT strategy of the organization. In this case, IT leaders can play an essential role in representing IT among business executives while developing a business-focused IT strategy aligned with the overall organization's goal, mission, and business strategy. Effective strategy decisions are best made with input from both business and IT executives.

In this single interpretive case study research, there are two major areas of criticism:

generalizability and researcher bias. Yin (2003) argues that "in interpretive field research, many of the results do not hold in other organizations. It is not the intention of this research to do so. The findings are not generalizable in a statistical sense but are generalizable to the theory". As per Yin (2003), theories used in other studies can be used as a template to compare the results.

There could be a criticism that the researcher, as the research instrument, allows several confounding variables to creep in, which biases the results. Klein and Myers (1999) said that "by consciously stating the historical and intellectual basis of this research and involving what the interviewees said in critical reflections, we refrain from falling prey to bias and show how the various interpretations emerged in this research." For the data collection phase, it was ensured that only individuals with substantial experience in decision making with some form of business domain expertise are interviewed. Even though the interviewees appeared knowledgeable, it is possible that their understating about the value of IT is not an accurate representation of the actual state of affairs.

There are several streams of work that can arise from this research. More investigation is required to assess a similar organization for the cross-case analysis. For the cross-case analysis, quantitative data would be collected, and multivariate analytical techniques would be utilized to analyze the data. Further investigation to establish relationships between IT strategy and the value of IT is required. Statistical tests could be performed for each of the paths presented in conceptual mapping between the value of IT and IT strategy objectives rather than basing the relationships merely on arguments.

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Appendices and Annexures

Table 1: Conceptual mapping of emergent themes of perceived values of IT and IT Strategy of MAFI

IT Strategy Objectives	Perceived value of IT		
	Managing risks	Efficiency & Productivity	Product & Services delivery channel
Provide easy access to products and services		S	P
Provide flexible system to implement new product		P	
Automation of manual and paper-intensive process	S	P	
Modernize the technology platform	P	S	S
Implementation of easy-to-use tools for tracking interactions with customer		S	P
Improve measurement and accounting capabilities by upgrading current financial systems	P	S	
Create a balanced approach regarding risks, costs, and benefits in managing risk	P		
Provide reasonable protection against the most likely threats while maintaining continues business	P		
Develop and implement enterprise data backup and recovery solution, consistent with emergent technologies	P		
Provide flexibility to run production systems from multiple sites	P	S	
Develop a comprehensive remote computing solution for business recovery	P	S	
Ensure business continuity plans for managing vendor risks	P		
Identify emerging security risks and develop a plan to mitigate the risks	P		
Develop and maintain the secure, scalable, flexible and reliable technical infrastructure	P	S	S
Develop capabilities for quality IT services including targeted service level agreement and repeatable provisioning processes		P	
Develop a policy to evaluate and use emergent technologies such as cloud		P	S
Implement selected key enterprise architecture processes	S	P	
Explore and implement adaptable and flexible system development framework to reduce development cost and improve time to market delivery		P	
Ensure required resources are assigned to enhance operational excellence		P	
Create capabilities to enable a seamless flow of data through an information supply chain		S	P

Figure 1.0: Perceived value of IT at MAFI

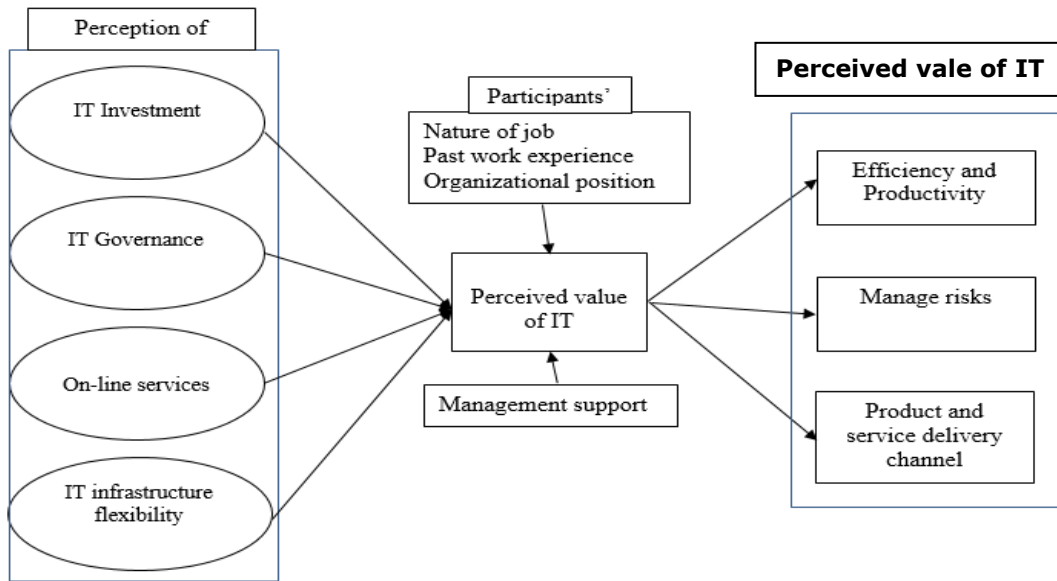


Figure 2.0: Perceived value of IT and IT Strategy

