# Understanding the Characteristics of IT Capability in Delivering a Customer-Focused Strategy: The case of Saudi Bank

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## Abstract

The rationale is to address the perceived gap in the existing literature by exploring the relationship between information technology capabilities (ITC) and customer-focused strategies (CFS). It is essential to explore how technologies enable organizations to implement strategies through a more interactive approach to their customers. Thus, the research objective seeks to improve the understanding of the relationship between ITC and the organizational goal of achieving a customer-focused strategy. Identifying the characteristics of ITC makes the organization focus on developing these characteristics, which may help to achieve an appropriate level of customer-focused strategies. The analysis of the data collected indicates five major characteristics of ITC.: 1) The fulfilment of business requirements on time, 2) the automation of business processes, 3) supporting business continuity, 4) the integration of multiple business systems and applications, and 5) the availability of timely and correct information. The conclusion summarizes these characteristics in the context of how they might affect a customer-focused strategy.

**Keywords:** IT, capability, characteristics, customer -focused, strategy, Business.

## 1. Introduction

Organizations seek to gather and analyze customers' needs and experiences in order to implement reactive and proactive activities; thus, they strive to develop superior ITC to interact more efficiently with customers [4], [8]. ITC are associated with positive plans and expansions for organizations, and are a primary indicator of an organization's capabilities [3], [15]. Therefore, in light of the organization's needs, the motivation for this study is not only directed toward academic contribution, but also as a practical contribution for organizations, or those interested in similar environments, especially those suffering from continuous customer issues. This study provides organizations with guidelines to improve their understanding of the role of ITC in supporting organizational strategies toward the customer.

This paper begins with a synthesis of definitions of ITC and CFS. The first part of this section introduces the emergence and definition of ITC. The second part discusses these statements, in the form of CFS, to be more practical and transparent. In addition, this section introduces the importance of CFS, especially with respect to the power of customers in an organization. Section 3 explains the research approach followed. Sections 4 and 5 discusses the potential characteristics of ITC in delivering CFS. The paper concludes by considering the limitations of this study and opportunities for future research.

## 2. Theoretical Foundation

### 2.1. IT Capability

The term 'IT capability' comprises two parts: IT and capability. Information technology (IT) is widely known and understood as a phenomenon however it is essential to define the terms 'capability' and then 'IT capability' in the context of this research paper. An organization has multiple capabilities that represent its power in the market, however, in such a case, the key is to consolidate and manage these capabilities for the benefit of the organization [3]. "Capabilities are developed through the combination of resources, and they denote high-performing business processes that are repeated over time to execute business tasks" [27, P 5]. [1, P 35] define capability as "...firm's capacity to deploy resources, usually in combination, using organizational processes, to effect a desired end. They are information-based, tangible or intangible processes that are firm-specific and are developed over time through complex interactions among the firm's resources". Capability is "a distinctive set of human resource-based skills, orientations, attitudes, motivations and behaviours that have the potential, in suitable contexts, to contribute to achieving specific activities and influencing business performance" [38, P 29]. In order to differentiate between IT and other capabilities, IT capabilities have distinctive specifications or structures. Two structural capabilities strongly present within IT [26]:

1. IT integration, which is the ability to integrate data, transactions and collaboration applications and communication technologies; and
2. IT reconfiguration, which is the ability of a firm to extend and recombine IT resources.

IT capabilities terminology has followed a gradual evolution over the past two decades. It is noted that these definitions have become more sophisticated, from simple and individual understanding to wide-ranging and holistic definitions that involve integral resources and interdependent relationships, as explained in Table 1.

**Table 1.** Evolution sample of ITC definitions

| Author | Definition |
|--------|------------|
| [3] | The ability to mobilize and deploy IT-based resources in combination or Co-present with other resources and capabilities. |
| [22] | "The individual competencies of skills and knowledge to accomplish the effect." |
| [6] | The focused strategic deployment of IT resources and competencies in support of the organization's goals, in summary, it is what IT can collectively do for the enterprise. |
| [34] | "A complex set of IT resources, skills and knowledge generated within the business process, which allow enterprises to coordinate activities and to use IT resources to achieve the desired results." |
| [24] | "Bond of competencies (skills and knowledge) and IT resources (infrastructure) … and is implemented through activities to achieve business objectives." |

Table 1 presents references defining IT capability as an evolving concept. Like many complex phenomena in the IS discipline, it is difficult to identify complete agreement across the definitions. For the purpose of this paper the researchers have derived a working definition of IT capability:

*An organization's ability to acquire, deploy, and leverage its IT resources in combination with other resources and capabilities in order to achieve business strategies and work processes.*

An IT capabilities framework controls the responsibilities and boundaries of IT components and manages the interactions between them. Information capabilities framework has been defined as "the people, process and technology-agnostic set of capabilities needed to describe, organize, integrate, share and govern an organization's information assets in an application-independent manner in support of its enterprise information management goals" [10].

Therefore, the main aim of an IT framework is to help organizations to develop governance and management of IT capabilities and their internal and external interactions.
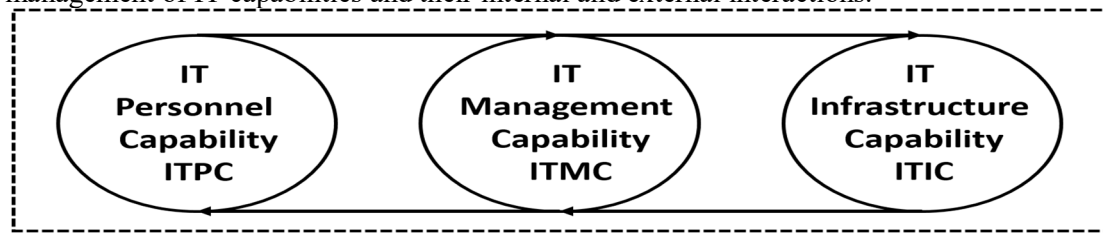


**Fig. 19.** The conceptual view of ITC, source: [15], [31], [28]

According to the physical, human, organizational elements of a taxonomy or framework [2] IT capability can be classified into three capabilities, as shown in Figure 1: 1) IT personnel capability, 2) IT management capability, and 3) IT infrastructure capability [15], [31], [28]. IT personnel are defined as those with the ability to deploy, use, and manage IT knowledge; such skills are advanced and complex [36]. IT management is the ability to leverage technology resources internal and external IT environment to achieve strategic IT objectives [37]. IT infrastructure manifests as physical and tangible IT core assets, such as computers and communication technologies and shared technical platforms and databases [3], [39], [15]. All these definitions emphasize the capability terms, however, they differ in terms of function. The integration of these capabilities help to achieve the strategies of the organization. Organizations utilize their capabilities in order to maintain and enhance the relationship and interaction with their customers [3]. Focusing on customers is one of the organization's strategies. In the next section, customer-focused strategy is discussed.

### 2.2. A Customer-Focused Strategy

Organizations attempt to include customer strategies in their mission and vision statements due to the high priority given to their customers [13, 14]. A large proportion of senior business managers and those at C-level believe that a management team distinguished solely by traditional strategic plans, such as price, product and quality, no longer provides a sustainable strategy, and that customer expectation is the next competitive battleground and a source of sustainable distinction for firms [23], [25], [33]. According to [9] there are distinct differences between organizations that are product-centric direction compared with those customer-centric firms. A product-centric organization creates a product and tries to find as many customers as possible, while a customer-centric organization understands its customers and tries to create as many products as possible that are in accordance with customer expectations. Hence product leads the organization business in product-centric organization, while in customer-centric organization, customer leads the business [9]. A customer-centric direction aims to allow an organization to provide features and quality products and services proactively and consistently for improved customer retention and loyalty over the long term [4]. Thus, the definition of customer-focused strategy is often a constant and a convention among scholars, as explained in Table 2.

**Table 2.** Evolution sample of customer-focused strategy definitions

| Author | Definition |
|--------|------------|
| **[30]** | The organizations that are going to create true loyalty from their customers are the companies that deliver a combination of benefits. |
| **[16]** | Strategic planning process considers that the needs of customers are key and develops specific strategies to satisfy the customers. |
| **[12]** | These strategies highlight differences in customers' values, potentials, needs and preferences. It is about leveraging customer knowledge to get closer to customers, while all the time, increasing the breadth, depth and length of their relationship with the firm. |
| **[32]** | The idea behind developing a customer-focused strategy is not to form the customer to the organization's goals, but to listen to the customer and try to create opportunities beneficial to both. |

| [21] | "Determine the value propositions that they should offer to create delight for their target customers." |
|------|----------------------------------------------------------------------------------------------------------|

In Table 2, once customers are aware of an organization's interest in their side of the value, they start to switch their attention and interest to the organization, become more loyal and act as advocates. At the same time, the customers know their value inside the organization. Customer-focused strategy requires keeping customers aware and updating them about what happens inside the organization, this results in heightened transparent relationship and a successful relationship which leads to positive outcomes for both the organization and customer [5].

Customers increasingly have multiple channels and various products from which to choose in order to satisfy their needs. The business works to guarantee an outstanding customer experience, maintaining this through delivering products and services according to customer requirements, and drawing attention away from a static definition of value to a more dynamic notion of service or co-creation [20]. In this regard, organizations conduct active strategies in managing customers. Three decades ago, Peter Drucker remarked that having their own customers is the first objective for organizations. "Strategy is the art of creating value. It provides frameworks, conceptual models, and governing ideas that allow a company's managers to identify opportunities for bringing value to customers and for delivering that value at a profit" [19, P 65]. A customer-focused organization is more likely to work by delivering exceptional service quality and creating satisfied customers [13]. "Organizing around the customer involves adopting solutions strategies" [9, P 22]. After taking into account the understanding of ITC and CFS definitions, the next section discusses the research approach and how they can be applied to serve the research objective.

## 3.  The Research Methods

A qualitative approach is very rich in cases of exploring and describing the reality of a field itself or the participants in contextual-based information [11]. A qualitative approach was considered appropriate in the context of this study, as it facilitates a comprehensive exploration and analysis of the role of IT capability in an organisation's customer-focused strategy. Analysis of phenomena, such as the new relationship between business and the customer, requires richness of qualitative data from the source. This type of rich data needs in-depth investigations approaching from several considerations, such as by considering emergent themes and key aspects [29]. The organization was deemed the most appropriate unit of analysis. An organization's  IT capabilities and customer-focused strategies were the target for this research. The primary sources of data was interviews. Interviews are suitable for an exploration of the opinions and insights of IT and business managers regarding the relationship between IT capability and customer-focused strategy [17], [29]. Interviews were conducted with both IT and business managers from one large organization from the service industry in Saudi Arabia, as shown in Table 3.

**Table 3.** Saudi Bank

| | The Scope | The fields | Number of Employees | The Customer |
|---|---|---|---|---|
| **Saudi Bank** | Comprehensive commercial and investment banking services | Saudi Arabia and UK | 3600 Employees | Personal and Corporate |
| **Interviews** | **Interviews type** | **Position** | **site visits** | **Duration** |
| | 9 face-to-face | 5 from IT, 4 from business | 7 visits, July, August 2015 | 7H:29M:56S |

Saudi Bank was selected as a result of the business distribution of the bank at both regional and global levels. The bank is one of the largest banks in Saudi Arabia and Middle East with a network of branches and various and different customer categories. Saudi Bank was also

announced the winner of the 10th Annual Customer Experience Benchmarking Index 2014 in the Gulf Cooperation Council (GCC) as the Best Customer Experience Overall Website.

The data analysis consists of three major steps: 1) transcribe the interviews, 2) code the interview transcripts, and 3) categorize the characteristics of ITC. Therefore, data collected has been analysed and collapsed into codes and categories through open coding process, and then axial coding was used to establish parent-child relationships between categories [36]. This was followed by selective coding, which involved identifying the core codes and categories for use during the presentation and discussion of the findings [36]. In practice, the interviews transcripts were imported to NVIVO (V11) in pdf format and then coded. NVIVO supported the generation of a report for each node (each node contains groups of related codes). The codes under each node has been reviewed and revised to be determined codes most related to the research objective. These codes were used to build a table of chain of evidence. The chain of evidence was used to write the results of the study. The next section discusses the results of the characteristics of ITC.

## 4. Results

Saudi Bank ensures that the financial targets will not overcome customer satisfaction and creates a balance between the importance of functionality, profitability and customer satisfaction as far as possible. Thus, investigating the characteristics of IT capability in the bank resulted in the identification of five key characteristics of IT capability in the organization. These included 1) the fulfilment of business requirements on time, 2) the automation of business processes, 3) supporting business continuity, 4) the integration of multiple business systems and applications and 5) availability of timely and correct information. Each characteristic contains strengths and weaknesses in supporting the business in achieving the customer's needs and meeting his or her demands. Each characteristic has a noticeable role in supporting the customer-focused strategy. The characteristics of ITC are outlined in the next sections.

### 4.1. The Fulfilment of Business Requirements on Time

The responsibility of IT is supporting the business in order to serve the customer in a better way and finding the best, fastest, and simplest approach in order to achieve that.

> *Currently, this is very clear to everyone, IT is the backbone of the bank, without IT you can't serve a customer in any way* (IT Manager 5).

Evidently, IT plays a crucial role in reflecting the automation and activation of the technology-based services and making them available at the front of the business to service the customer precisely and quickly. IT is the source of the building of a stable IT environment in which to launch business services. Thus, IT management takes into account all the necessary IT resources and capacity to deliver technical services and plans according to the requirements of the work of the business in the short, medium and long term. IT has a process through which to serve the business. However, IT management work according to the limits of their capabilities. Business managers believe that IT support them, but they also believe that IT is having difficulties in providing the necessary resources to meet their requirements. The National Sales Manager cited this problem clearly:

> *Very good reaction and attitude, when there is an error in the system, and if I send an email, their reaction is good, in the limits of their capabilities, but in the limits of their capabilities* (Business Manager 2).

The issue with IT resources and capacity is the queue constraint that is involved. Business requests are placed in a queue: a queue means time, and IT has an issue with providing IT resources and capacity within a convenient amount of time.

> *Business has major enhancement services. We have many new services and it's all reflecting on the customer. But every time, business needs to queue in the pipeline with IT* (Business Manager 3).

IT has control over the time taken for a service to reach the market. Appropriately implemented, IT can give a business the required solution on time to utilize an opportunity and access the customer first. Thus, the business is able to offer a service on the market to the customer before the other banks. In practice, IT provides the required solution late, because IT does not have enough resources or there is a delay in the handover of the service. In Saudi Bank's case, IT resources and capacity are considered an obstacle to business progression. Lack of technical capacity pulls the business to the bottom because of delays in customer service implementation or a reduction in service features. Thus, the business may miss an opportunity and could lose customers. There is a possibility that competitors will prioritize such a service feature because of a delay in implementation by Saudi bank.

> *Time is money. In the market, the one who is an entrepreneur, who offers first is the winner. If you are the one who does it first, even if it's a trivial idea, but because you have offered it first, you get it. So we need immediate solutions and we don't need these protocols. The service desk sometimes receives a request or complaint but doesn't solve it. It probably takes from 4 to 5 hours and I may lose 20 customers in that time* (Business Manager 2).

The second issue appears from previous example is IT has certain requirements and IT employees have to follow each process precisely, even if the service is already the best and a source of profit for the bank or it comes from a customer's demands. IT is strict in following a check list, such as one relating to information security or access permission. For example, IT takes a long time to gain approval access on the Virtual Private Network (VPN) of the bank because of the need for information security. This is good practice for saving bank and customer data, but creates a bottleneck because it takes a long time. Thus, the process causes delays in servicing the customer quickly. This method may weaken the bank's position in facilitating and increasing the speed of customer service. A Business Project Manager in IT admitted this explicitly:

> *IT in the end has constraints, resources, security, and sometimes the service may be the best and you are the reason for the high profit, but it's not secured. Here, these things, I have certain processes, I have to follow each precisely, and the processes are time consuming, there is bureaucracy. Time is the issue; we are always having issues regarding time when the business asks for something.*

This tangibly demonstrates that IT has an impact on both the business and on the customer. The business is going to be effected because the limitations in IT resources and capacity prevent or delay progress. Customers become upset by incomplete actions or delays in services. However, if IT has an issue with providing new business requests on time, IT has achievement in automating current business processes. The next section discusses how IT at Saudi Bank has automated the manual tasks of the bank and its business.

### 4.2. The Automation of Business Processes

IT is working on transferring all cross-functions between the branches and offices of the business so that they are available on as many systems as possible. IT is primarily responsible for the bank website and mobile banking. These two main transformations are aimed at converting the business processes from manual to automated work. IT plays an important and vital role in this transformation. The role of IT begins with understanding the processes applied in the branches and offices. IT transfers the processes electronically in the form of applications on the systems and the internet. Through the interviews conducted, it became clear that there was keen interest from the IT department. For example, the IT Customer Service Delivery Manager explained:

> *The applications are all customer-focused applications. If we talk about the brand side, we try to make the process automated, so the customer doesn't have to stay in queues, or to wait for feedback or wait for his work to be done in an efficient and quick manner.* (IT Manager 3).

The Customer Service Delivery Manager considered the transformation as part of the focus on the customer, because there was no need to have the customer wait in a queue or use paper

as in the past. A simple example of this is that registering a customer's information previously required registration on papers which were then stored in the office records. IT has transferred these processes to the CRM system. This shift may have facilitated the registration process and keeping the effort by the customers and the bank employees. Also, it may be the reason for the decline in the cost of paper and the reduction of mislaid customer documents.

The recent success of IT is mobile banking at Saudi Bank, which highlights the role of IT in keeping pace with the rapid growth of technology. IT is the active ingredient, as the purpose of IT has been to implement such technology conversions. IT in turn has shortened the time and effort required and made it easier for the customer to access and implement his or her services automatically.

There are shortcomings in automating some of the purchases and sales functions. For example, employees in the bank's car loans department are still using the method of copying customers' documents using photocopiers and sending the application and documents manually to head office to implement the orders on the CRM system. This problem became clear through the interview with the National Sales Manager at the bank, who expressed his frustration:

> *What is my dream? My dream is that my representatives get an iPad with only one form to be filled, then take photos of the documents of the customer and send them to be implemented. This is my dream, without scanning the documents* (Business Manager 2).

This example illustrates that the automation of the business processes is not complete. This effects the customer's satisfaction when he or she is intending to apply for a car instalment from the bank. According to data collected, the business function at Saudi Bank consider that today's customers live in a world of technology. The customer may criticize the shortcoming of what and could then add a comment about it on social media and be the cause of reluctance regarding other customers using the bank services.

There is another reason for the non-automation of all the business processes. Resistance to change is a factor, as some of the business staff consider technology as something difficult or unpleasant, this is emphasised by one interviewee:

> *I see a very good opportunity to automate and enhance the process. The manual work, we have to work on it, and this has to be supported by the IT. The business sees the technology as something complicated, difficult and unlikable* (IT Manager 4).

Subsequently, this manager has asked IT to support the business employees in using the technology available to them as, the reason is not only resistance to change but lack of knowledge about the automated processes that used to be performed manually. As is the case in the following example:

> *Sometimes, the business thinks that the way they have is the best, and some technologies may not be fully known to them. For example, someone came and he was working manually on Excel, I told him that I can make a system for you to do 90% of your work. Sometimes, business employees don't have enough technical awareness of these things* (IT Manager 2).

Such technical awareness facilitates the work of the business employees and, therefore, facilitates customer servicing through technology. The endeavours of IT in transforming the Saudi Bank into an automated environment are a significant characteristic of IT. Tangible evidence of this is the effectiveness of the use of the bank website, as this Saudi bank was announced the winner of the 10th Annual Customer Experience Benchmarking Index 2014 in the Gulf Cooperation Council (GCC). Converting to automated processes requires maintaining continuity in the processes of that business. In this regard, IT characteristics supporting business continuity is explained in the next section.

### 4.3. Supporting Business Continuity

IT is used in an attempt to develop applications on which a business can rely, so that the business can promote that function. Stable systems are a result of stable services, and in turn both business and customer are happy. The integration of multiple systems and applications supports

services improvement. The Saudi bank's strategy towards the customer is reflected in it's commitment to improve customer services. The Business Project Manager gave an example of the continuous support of the business and the customer by the IT.

> *The application support managers continue to support the system, the business, and the people in the business who use the system, for the rest of their lives. These application managers indirectly support the end customers* (IT Manager 2).

This demonstrate that after launching a business service, IT continues to support business continuity by maintaining the business systems. This situation shows that IT indirectly supports the end customer. There might be a customer whose card does not work or has been rejected during a payment process due to a technical issue. IT is the first direct and last line of defence for the business to solve the customer's technical issue. Calling or opening a ticket with IT is the first action taken by the business. At the same time, IT is involved in staying with the business until the last moment to make sure that the issue has been solved completely. The interaction between IT and the business is very strong. It has to be effective or the work will stop, which will have a negative impact on the customer. For example,

> *If I send an email, their reaction is good, in the limits of their capabilities, but in the limits of their capabilities. Honestly, they are fast. For example, if I call the Applications Support Manager, he gives me full support, and the same applies if I talk to the head of IT, so this way we have interaction, like a beehive* (Business Manager 2).

IT knows that it is extremely important for the ongoing business systems and applications to be up and running. Otherwise, the business and the customers are going to complain. A customer will not complain unless he or she is in need of something, so a customer will start to talk about the bank once an issue has occurred. In this regard, IT equips its resources and there is continuous work done to resolve issues in active services. Such continuous work means that it is rare for infrastructure or applications to go down, but, when any service does go down, IT will address it and resolve it immediately. This work is intended to eliminate threats to the stability of the infrastructure and maximize the availability of functions [15], [28]. The inevitable result of stability and availability is the continuity of business services and thereby the customer receives the required service without hindrance:

> *Rarely do you find employees in their offices, they are always sitting with the business, solving issues. They are with the other IT functions fixing a certain issue the business is complaining about, or a customer is complaining about something, or something may be needing to be solved, and they ask them to finish it, this is important* (IT Manager 4).

This observation from Business Application portfolio Manager, who manages IT relationships within the business, is a good example of strong IT supporting the business in serving the customer. Analysis of data collected suggests that there is a high degree of interest among IT employees in minimizing customers' complaints by having as few technical problems as possible. IT has undertaken several procedures and actions in order to maintain active services and business continuity. The following points summarize these procedures and actions taken by IT in the case of the bank.

1. A monitoring and alerting tool: this is used to monitor an application's measurements, such as database usage, the speed of transactions and the rejection rate.
2. A 24/7 service desk: dedicated technical engineers to support the business.
3. Virtual Private Network (VPN): a secure connectivity network over a public network that provides remote access to the bank network's offices and employees.
4. Disaster recovery (DR): the DR environment has to be equivalent to the systems for production. There is no difference between them. If something bad happens during an operation, the DR is sufficiently scalable to take the load.
5. Operational Level Agreement (OLA): the OLA defines how and when IT will address and solve a service issue. IT is involved in repairing an issue within 24 hours in large cities such as Riyadh, Jeddah, and Dammam, and three days in more remote cities.

Previous technical measures are an indication of the interest of IT in the continuity of business systems and applications. Monitoring and operating business systems and applications, securing connectivity networks and alternative environments in the event of disasters are reasons to maintain the business processes and customer services.

Unfortunately, ensuring business continuity is only satisfactory to a certain level. There are some technical weaknesses that are harming the business and customers are affected due to idle time when operating legacy systems. In addition, a lack of on-time customer data when needed or incompatibility between legacy and other systems. These weaknesses were recognized by the Business Application portfolio Manager, who meets directly with the business and feels their frustrations:

> We enhance a lot but still, I don't see that we have reached satisfaction yet. Some of the services still stop and we don't know about it, we bring it back for monitoring, because these are old services on legacy systems, or they're not compatible. We have to spend some time migrating and things like that stop business. I don't see their satisfaction, at least it is not convincing to me. Someone probably says that he is satisfied, but you can still see some frustration (IT Manager 4).

Legacy systems need a great deal of technical preparation in order to be synchronized with the monitoring tool or to be addressed by technical support. It is possible that this issue relates back to: 1) the lack of IT resources in developing new systems instead of the legacy systems discussed in the previous section, or 2) they may be due to the organisation avoiding associated costs. Integration between a legacy system and newer systems is a type of drain on IT capacity and time, due to the differences in the interface protocols and the capabilities between them. As a result, the transfer of orders or data between them takes a long time or a lot of work. This point leads to the next section, which discusses the integration of multiple systems and multiple functions.

## 4.4. The Integration of Multiple Business Systems and Applications

The integration of multiple business systems and applications is carried out by IT. This integration involves the creation of systematic connections across the departments concerned and the functions of the bank in order to provide integrated services to the customer. Integration of these systems is considered a characteristic of IT. Without the presence of IT, the integration process would be very difficult:

> Things that have enhancement, the customer may ask for something, internet banking or services through these channels that interact with the customer directly. In fact it is not just an interface, it has lots of integration and other systems in the background. The bank is very interested in this (IT Manager 2).

Integration helps to quickly and easily moving data and information between business systems. Business employees deal with a single view, without the need to go from one system to another or from screen to screen. An integrated service means that the customer is not aware of any shortcomings, and the business is not required to carry out a lot of work to activate or cancel a customer's requests. The customer feels that the services are running smoothly in the speed of the fulfilment of his or her requests. Thus, the bank increases customer satisfaction and keeps the customer.

There are numerous business systems and applications in the bank. The bank also runs around 203 branches, 1,200 ATMs, and 11,000 points-of-sale. IT is responsible for the integration and smooth running of the system's services for all these entities, so any business service, whether simple or complicated, needs to go through multiple interfaces. All the operations, such as payments, transferring transactions across the departments concerned, and money withdrawals or deposits though ATMs or branches in the bank require sequences of technical actions. For example, Head of Customer Experience and Service Standards cited a simple request, which was the cancellation of an SMS notification based on a customer's request. The execution of the cancellation request electronically interfaced with different systems which were able to deal with several aspects, both internally and externally, to deal

with the telecommunications companies' systems in order to complete the removal of the notification service from the customer's list:

> *You have to tick if you want to receive promotional SMSs or not. It's not a matter of ticking, it has enhancements from IT and they get involved with you. It's not the matter and we put the focus, we have to reflect on the systems, true, because it's the main thing. This small tick was one of many things that were required from the IT. There is a major integration, you have to exclude them on any lists for messages, and many times IT makes a system and starts it and then makes it joint*
> (Business Manager 3).

The ability of IT to integrate is highlighted in this episode. This is one of a number of examples demonstrating the capability of IT in integrating business systems. From a customer's point of view, it is seemingly a small tick to subscribe or unsubscribe in the list of the recipients of SMS messages. While in the background, there is a list of systems operate in compliance for the completion of what may looks a simple change. Overall, analysis of the field data indicates that, any service in the bank requires checking the customer profile, if he or she is eligible for this service, and then require interfering with the financial systems in order to add service charges if needed.

However, the same shortage in the implementation of a new service due to the limitation of IT resources and capacity happens when the business requests a new piece of integration. The service may be ready on the system, but the business cannot launch it to the customers because it depends on input or output from other sources. This limitation sometimes forces the business to change its strategy in relation to the customer, or may cause the business to provide services of lower quality. This causes anger in the customer or prompts him or her to think of changing banks. Retail Internet Banking Manager, took umbrage over IT's inability to implement a link between the internet banking channel and the treasury system to complete a customer's registration service as required. He explained that the problem came from the integration, as follows:

> *This isn't easy. One of the recent projects we had, we had an initiative to do in-branch registration for customers, in the branch. When he opens an account, we directly enrol him on the internet and the mobile banking. It took more time than expected and, in the end, IT said that the integration won't be easy between the channel and the treasury, which is the core banking system here, and we will definitely face performance issues. This made us change the whole initiative based on the constraint that we were offered* (Business Manager 4).

This challenged was mentioned once during the interview process. There was little empirical evidence identifying problems relating to the integration between business systems. Ultimately, the customer does not recognize this situation. He or she will think about leaving the bank with the first sense of the inability/incompetency of the part of the bank. The customer wants an integrated service. The business wants both to avoid any issues with legacy system integration and for data to move smoothly between the required systems to service the customer. However, the smooth transfer of data or information is not the only important criterion for serving the customer. Correct and available information is also important to the business and the customer. The next section deals with how IT at the bank provides timely and reliable information.

### 4.5. Availability of Timely and Correct Information

Saudi bank depends on the validity and accuracy of customer information in taking decisions. The business also cares about the availability of service information in real time. Access to information that is correct enables the bank to serve its customers properly. The bank is interested in possessing accurate information about customers, such as personal, functional, or financial data, in order to provide services compatible with their physical and financial potential. In contrast, incorrect information, either about a customer or the service provided, leads to providing a service to the wrong customer or the wrong service to a particular customer.

From the point of view of the business, the availability of timely information is important for them to do their work properly. National Sales Manager, elaborated upon this:

> *As a sales manager, what is the most important thing for me? Information. You are the commander in a "battle" and, when you get information, you save time and effort and win a customer.*

With competition between banks, information remains a strong weapon that marks the differences between institutions. The business departments at the bank try to ensure that as much information as possible is ready when they need it. They know the importance of such information to the continued success in customer servicing. This highlights the characteristic of IT in providing information in a timely manner to the business departments, as well as to the customer. IT is aware of the importance of this point and endeavours to make on-time information available. The Director General of IT stressed that IT in the bank is the owner of this information, and is responsible for providing such data to the business departments or to the customers:

> *I have all the information for the whole organization, all the information of the organization are in a certain database or a certain system, and in the end, I own the data warehouse, I own the information, so IT can provide measurements, IT can measure the trends of business markets* (IT Manager 1).

In addition, the field data collected indicates that IT is responsible for data management. There is a unified database under the CRM system, which contains all the customer information and services data. The CRM system is linked with all the other systems in order to update the data on an ongoing basis.

The capability of IT to provide on-time information helps the bank in general and the business departments in particular to establish the real situation at the bank. The higher-management level at the bank takes the right strategic decisions towards the customer with the presence of information in terms of customers' ability to stay with the bank or their desire to interact with or leave the bank. Information is also an important factor for the business departments in setting expansion plans, as well as considering when it is appropriate to exploit opportunities in the market. The following example links the importance of having customer information and the success of the customer experience. Knowing your customer (KYC) helps to meet the customer's actual needs and fulfil his or her wishes. Whenever a business possesses the correct information about a customer, it can estimate what is required to achieve the customer's wishes:

> *Designing the service frames is part of the customer experience and we want to make sure that the customer experience is at its best. What kind of information to show the customer and when, what input we ask the customer for and at what stage, this is very important* (Business Manager 4).

In collaboration with IT, this manager is responsible for design on the bank's website. The service frame needs to be desirable for the customer to enhance his or her experience. The exact location of the service on the website is a factor that may attract the customer. Information accompanying the service in terms of quality and quantity is vital and needs professionalism. Likewise, type of input request from the customer and its time sequences. All accompanying features of the service underscore the importance of knowing the service frame to improve customer experiences. In contrast, simple icon is not clear or is disabled may be the reason that the customer takes a bad impression about the bank website.

In practice, possessing the correct information is considered essential for the proper issuing of reports by the systems used in all the departments. There are statistical and financial reports that are derived from having information that is as accurate as possible, which are managed by IT group:

> *IT gives reports, every time: why don't you do such and such. Then I make a standard report that will give the business the information better than the old report. Makes my life easier, and the life of all easier, and gives me better information* (Business Manager 3).

IT is responsible for the reports developed for the business departments, and designs electronic reports based on business requirements that rely primarily on having accurate information. Having one information source, which is the IT, makes business life easier in terms of having more accurate information. With the above capability of IT to provide correct and on-time information, there are restrictions and conditions to accessing some of that information. The greatest restriction is the sensitivity of specific information, such as data concerning VIP accounts or belonging to government or private agencies. The goal is the protection and security of information. For example,

> Unfortunately, the market doesn't allow someone to take the whole service… you know how sensitive the customer's information is, you can't give everything to everyone. If they get all the information, this might be leaked somewhere else (Business Manager 2).

Both IT and the business departments suffer from the need to protect the privacy of specific information, which means that there can be difficulties in providing the required data in a timely manner. Incomplete information can create a misleading picture with regard to a customer's needs, which may be a negative trend for the bank and the services provided and then becomes a case of customer dissatisfaction.

## 5.  Discussion

The section above presents the findings from this research study in the form of ITC characteristics in a large banking organisation. In this firm, IT is considered a facilitator for business. IT takes time to fulfil business requirements because of limitations in IT resources and capacity, particularly in the implementation of a new service or a new integration between business systems. The bank website and mobile banking are good examples of the automation of business processes by IT, however, the automation of all business processes has not yet been completed. IT is concerned with keeping business systems and applications up and running, with the result that the infrastructure or applications go down only rarely.

IT is the owner of that information. One database under the CRM system contains all the customer and services information. The greatest restriction on information availability was found to be information security due to the sensitivity of specific forms of data.

The findings indicated that ITC characteristics at Saudi Bank can be configured to have a positive impact on the customer-focused strategy, with benefits of improved time to market and decision making, integrated but stable services, and transformation to digital business platforms. From the results, Figure 2 shows the articulation of these benefits around the various characteristics of IT capability.
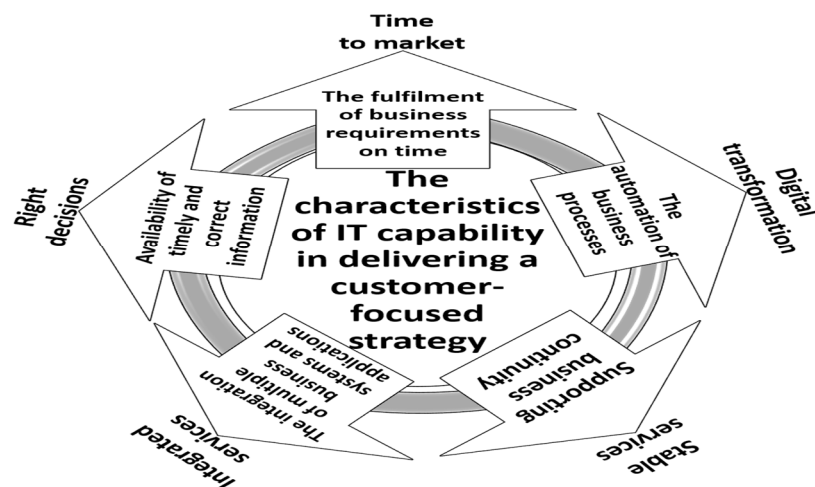


**Fig. 2.** The characteristics of ITC in delivering CFS

Saudi Bank's IT is capable of change and development to give positive results. For example, IT changes the sources or schema of information quickly by changes in the market or customer. Such results emerged through customer information about taking decisions, which is discussed through technical procedures in order to support the business's decisions about their customers. In addition to the availability of information about the customer, the integration characteristic helps in the speed and ease of transfer of the customer's information between business systems. In an optimum scenario, the customer feels that multiple services run smoothly as one single unit at the speed of completion of his or her requests. Thus, the bank increases customer satisfaction and keeps its customers.

The data collected showed the lack of direct contact between the customer and IT. However, IT has a clear imprint through the evidences and examples given in the previous section. For example, the result of automation and integration characteristics is to facilitate the services provided to the customer. IT plays a role in transforming the customer to the digital world, resulting in reduced effort and cost to the customer. The transformation of Saudi Bank functions to the digital world highlights the availability of core services through digital channels such as Internet and mobile applications.

One of the lessons learned from the case of Saudi Bank is that the bureaucracy of IT may have a negative impact on the business and the customer. IT follows processes literally and this is reflected in the increased time needed to reach the customer. In contrast, agility in fulfilling the business and customer requirements gives positive results for all parties, including IT. Thus, the use of agile methods may strengthen the bank's position in facilitating and increasing the speed of customer service.

## 6.    Conclusion

This study considered the existing seminal literature defining ITC and CFS. Using a single case study approach the researchers undertook an investigation of the characteristics of ITC in order to understand how they realize a customer-focused strategy. The understanding of ITC and CFS culminates in the design of Figure 2 which helps to understand the benefits of the five characteristics of ITC in order to focus more on customers.

The importance of the five characteristics of ITC in delivering CFS is evident from the bank case conducted for this study; however, one of the limitations of this study is the lack of participation of the customers during data collection. Time constraints and limited resources were the reasons for this limitation, in addition to the desire of the researchers to know the internal relationship between ITC and CFS within organizations before the introduction of the external customer. In regards to opportunities for future research, there is a need to engage the external customer in order to verify the viability of the selected IT characteristics and in order to utilize deductive research to determine the order of preference of these IT characteristics in terms of effectiveness.

Some evidences that were extracted from this study may be compatible with other industries such as the logistics industry. For example, IT's ability to automate some of the bank's operations would be useful in automating some logistics operations, perhaps ones which relate to the delivery service processes, to minimize manual or human intervention. Also, the integration characteristic carried out by IT may help in the integration of customer expectations and preferences at a higher level than one organization, ultimately becoming a country-level or global-level such as a 'global identity'. Furthermore, IT's capability to integrate may extend to humanitarian services such as ambulance operations, for example, in critical situations that require the transfer of the patient to the nearest hospital, as soon as possible. The integration of Global Positioning System (GPS) into hospital systems is vital to the lives of patients.

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