

QATAR UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

OUTSOURCING IMPACT ON ORGANIZATION PERFORMANCE -
TELECOMMUNICATIONS SERVICE PROVIDERS IN GCC & MOROCCO-

BY

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ABSTRACT

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Telecommunications industry has passed through different phases of business development in Morocco and GCC –Gulf Cooperation Council-. The significant transformation was from a monopoly to a competitive industry market structure. At this stage, telecommunications organizations, especially service providers, started to take quick actions and measures to mitigate this market change impact, by enhancing service quality, optimizing the operational costs, looking after customer satisfaction, and building adequate strategies.

Some service providers decided to outsource their activities, as part of operational costs optimizations remedies. It targeted initially non-core activities and got extended to core business scope of the organization in some cases. Consequently, we will analyze the outsourcing impact on Telecommunications operators' performance, using the Balanced Scorecard approach.

The study sample has been taken from 32 employees, working in telecommunications operator in Morocco and GCC, as core business team lead, where they manage both outsourced and insourced skilled human resources. In addition, two interviews have been conducted with directory level in both Ooredoo Qatar and Ooredoo

Group, to seek their visions toward core business outsourcing strategy.

Multiple studies have validated the fact that BSC is a relevant concept for all kinds of industries. Furthermore, the balanced scorecard provides historical perspective and also insight into the future performance, that can be obtained or even the steps that may be taken to achieve the desired results.

Keywords: Outsourcing; Balanced Scorecard; Managed Services; Organization Performance; Telecommunications Sector; GCC and Morocco regions; Customer Perspective; Internal Process Perspective; Learning and Growth Perspective; Innovation.

DEDICATION

I dedicate this research to my beloved parents, brothers, sister and supportive family, whom I credit for pushing me to continue this MBA program. I grab this opportunity to thank them for always being available to extend support on multiple aspects

I also dedicate this research to my wonderful and darling wife who has suffered from my shortcomings due to the amount of time I've invested in the MBA program and my job.

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CHAPTER 1: INTRODUCTION

Outsourcing is a practice used by different companies to reduce costs by transferring portions of work or source to outside suppliers rather than completing it internally. Nowadays, Outsourcing has become a usual practice, and well-known within organizations, in different industries. Outsourcing has diverse ways of existence, depending on sector, skills, function itself, activity type and many others. As an example, an airlines looking to build headquarter office, the obvious decision is to outsource the whole project as it is beyond its expertise. However what about recruiting a pilot? Do they have to outsource this job as well? Considering this is their core business, the decision has to be taken judiciously.

There is a difference between “make-or-buy” and “outsourcing” (Kate Vistas, 2016). In the free market, competitors look for low cost and good quality, to be able to have a foot hold in the business. Deciding whether to buy or make is related to a separate business process, where a standalone device or component can be manufactured and delivered faster, cheaper and better from a supplier to finalize the main product.

In our research, we will focus on telecommunications industry and outsourcing decision of its core business department or team. Operators represent more than half, with 55% of the world Telecommunications business (EY, Navigating the road 2020). In the past few years, some huge and prestigious companies have been out of market or got sold, such as NOKIA and many others start to lose its market share (Tomi, Joha & Eero 2016). This becomes a nightmare for most players in the sector, consequently, we will try to study the relation between outsourcing and its impact on organization performance based on the balanced score card concept.

Telecommunications Industry

Telecommunications industry is transforming continuously, through new products, innovations, market structure and competition, as opportunities are available within the wide digital utilization and customer demand (EY, Navigation the road to 2020). Telecommunications market has been transformed radically during the past 10 years, from voice and SMS (Short Message Service) demand, to more and more data utilization, accompanying with the expenditure of phone device development, and plenty of mobile applications, resulting in the transformation in society lifestyle. Therefore, operators starts to face challenges to meet this new demand and building a suitable pricing plan, to recover lost revenues, due to reduction in voice calls.

Ernst & Young study in the year 2016 for the global telecommunications market shows that most of the operators care about Customer Experience Management, as old telecommunications infrastructure doesn't provide access to single end user to understand his behavior and expectations, in order to meet them. Especially in extensive competitive market. Consequently, service management layer becomes a need, and another opportunity in the future for telecommunications business stakeholders to explore.

Telecommunications industry has many stakeholders, which represent the total market revenue worldwide (EY, Navigation the road to 2020).

- Infrastructure and Platform vendors: They represent only 5% of the total telecommunications industry. They are responsible to build, install, and implement the telecommunications equipment and necessary infrastructure for the operator to run its services on top of it. As example: Ericsson, Huawei, Juniper and Nokia.

- Device Vendors: We have multiple competitors in this industry segment, like Apple, Huawei, Samsung, LG, Sony-Ericsson, Nokia and many others ... They manufacture the devices for end users to enjoy telecommunications services. Their total revenue in the industry represents 20%.
- OTT, content and advertising services: OTT (Over-The-Top) is started to be widely explored to use multiple devices through a single connections. In addition, Content can be Media and TV channels, and advertising services business becomes usual, especially through internet. These businesses generate 10% of the telecommunications industry total revenue. As example: OSN ShowTime, Netflix.
- Retail and distribution: Represent 10% of the total revenue in the telecommunications market. They benefit from sales margin on sold devices, such as Star Link in Qatar.
- Operators: Service providers to all consumers segments, including corporates in the country to deliver voice, video, internet communications. Service can be wired, wireless and sometimes satellite. Every technology (Mobile or Fix) has its challenges in term of implementations, operations and limitations. They are dominant in the telecommunications market with 55% of the total industry available revenue. They exist in any country, like Ooredoo –Qatar-, STC (Saudi Telecommunications Company).

Before 90s, telecommunications industry was very limited in each country, and considered as monopoly. Currently, market has been changed dramatically, the historical operator struggles to maintain its subscriber's base, revenue and profit. Operators are

facing all kinds of external forces of increasing expenses resulting from increased employee salary, easy switching operator of customer from one to another. In order to stand out from the competition and to have above average earning, different operators are looking for diversified possibilities to reduce their expenses.

The most costly expense for the operator is the network infrastructure expansion, maintenance and related operations, which represents typically up to 20% of the total OPEX (Operating Expenses and Expenditures) of the operator in mature markets (Jethro and Gustav, 2009). Jethro and Gustav, 2009 suggests that savings in these costs could translate into a one-to-three percentage-point improvement in the earnings before interest, tax, depreciation and amortization, or EBITDA for operators. Consequently the most common solution is outsourcing, as it represents an easy shortcut to achieve financial results. Usually, the outsourcing ends with engaging a third party in performing partially some business core competencies such as network maintenance and operation, while securing the business with a contract in place.

Research Problem

In telecommunications industry, due to the continuous transformation in terms of demand, and market structure, operators have started to face many challenges to keep their business growing. From a business study conducted by EY in 2015 regarding telecommunications industry across the globe, interviewing Executives (CxOs, and directors) who take strategic decision, it was surprising that the most important strategic priorities for all operators are, by order:

- 1- Customer Experience Management: which lead us to Customer satisfaction.
- 2- Cost Control and business efficiency: In other words, business process efficiency

3- Network Upgrades and modernization: it is closely linked to knowledge, learning and innovation.

During EY study, Morocco and Middle East were part of the interviewers and share the same views. Looking at these challenges, with decisions for outsourcing in some Operators in Middle East & North Morocco, we will try to analyze the outsourcing direction with achieving the 3 strategic priorities. Does outsourcing decision impact the improvements of all the three areas?

These strategic priorities align with the main pillars to the Balanced Score Card concept, in addition to Finance which constitutes the fourth pillar. Having this intersection between industry challenges and an existing worldwide performance measurement method for organization, makes our research interesting to find out if there is any relation between outsourcing decision and achieving the target for the three strategic priorities.

The new challenges for operators are linked to the telecommunications infrastructure and core technology business. Consequently, we will focus our research on the outsourcing of the core technology of telecommunications operators, as in below illustrated example, in North Morocco and Middle East, and operators' ability and readiness to compete on:

- Customer Experience Management
- Business Efficiency
- Knowledge and Innovation

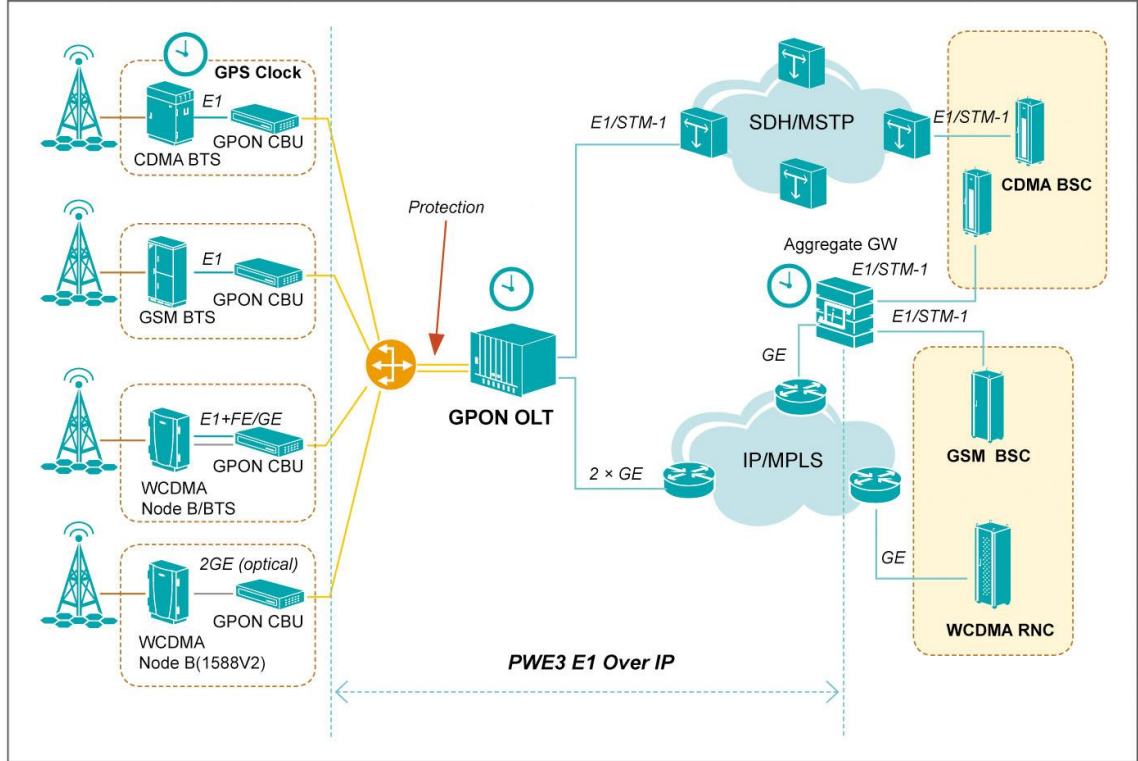


Figure 1: *High level design example of a telecommunication operator core business*
 (<http://wwwen.zte.com.cn/endata/magazine/zte technologies>)

Research Objectives

The recent trends in telecommunications industry is to reduce their expenses and different costs, and being able to compete on international scale and market. Competing on innovation provides strong position to expand existing businesses (Ahmed, R.R., Vveinhardt, J., Ahmad, N., Mirza, M. (2014)). This statement is valid for well economically developed countries, and developing ones as well. Both regions, North Morocco and Middle East are considered as developing countries (IMF, 2015), where

outsourcing trends in telecommunication businesses have not been largely analyzed (Ahmed, R.R., Vveinhardt, J., Ahmad, N., Mirza, M. (2014)).

Consequently, we have taken this opportunity to enrich the telecommunications industry, especially for operators in NA & GCC region, with consolidated study of the outsourcing impact on operators business, using the main three pillars of the Balanced Score Card widely implemented in various industries.

Research questions:

- 1- Does outsourcing an operator core competency negatively impact its innovation?
- 2- Does outsourcing an operator core competency decrease its operation and internal processes efficiency?
- 3- Does outsourcing an operator core competency reduce customer satisfaction and service quality?
- 4- Does outsourced staff looks for Self-learning and knowledge improvement more than insourced ones?
- 5- Does operators invest enough in the three strategic pillars?
- 6- Does outsourcing an operator core competency negatively influence the organization future opportunities in a competitive market?

CHAPTER 2: LITTERATURE REVIEW

Smith (1776), an eccentric Scottish academician at Glasgow University, observed the human prosperity for self-interest and formulated the “invisible hand” theory of supply and demand in 1776 (*An Enquiry into the Nature and Causes of the Wealth of Nations*). His theory said that society benefits as a whole from a multiplicity of trading transactions, and he encouraged “Division of labor”, as a key justification for helping early businesses drive efficiencies in operations and to work more efficiently with trading partners.

Outsourcing is a transaction type as per Smith theory, where a service transaction occurs between buyer and supplier. Today’s business environment is dynamic and always challenging. Many academics use the military term VUCA, which stands for “Volatility, Uncertainty, Complexity and Ambiguity” to simulate the day-to-day experiences of many businesses. In the following, some drivers of different business nowadays (Kate Vitsak, 2016)

- 1- Globalization increases human resources mobility and creates new market place anywhere.
- 2- Volatility and high risks, such as terrorism, natural disasters, labor disputes and transportation infrastructure
- 3- Fast consumer-driven society extremely demanding more agile and flexible supply chains
- 4- Continued evolution of a service economy model that is moving to strategic, and not just tactical or outsourcing
- 5- A change In acquiring skills and processes that create value, not simply procure goods and services

6- Expansion and introduction of capabilities of cloud computing in procurement activities.

The above points show that management decisions has become more complex and uncertain. Nevertheless, being able to innovate and retain customers might overcome some difficulties. Today's business environment is no longer about lowest cost or best value only, but is about capabilities to drive transformation and innovation (Vitasek et Al., 2012).

Large organizations running different core competencies start to find difficulties to keep focused on all company departments and functional streams. By 1990, Prahalad and Hamel conducted a study and found that most organizations cannot focus on more than five or six competencies. Consequently, the outsourcing started to take place in the market, and especially targeting non-Core Organization competencies such as call center, security and safety services (Kate, 2016).

Sourcing is a relationship between buyer and supplier, which starts with a contract defining deliverables, obligations and rights for each party. In business, there are seven sourcing models, but the widely used are the transaction-based models that are constrained by a formal, legally and liability-based culture (IACCM, 2015). Nonetheless, the transactional –based approaches do not always give each party the intended results (Williamson, 2008).

Through the following, we will describe different models of relationship between buyer and supplier.

Outsourcing Models

Outsourcing represents a concept from another perspective of the buyer-supplier

relation. It is more related about services, such as human power management, maintenance service, and many others. In the business, we can find generally seven models of buyer-supplier relationships.

The seven sourcing models can be categorized into three, referring to Oliver Williamson’s sourcing continuum:

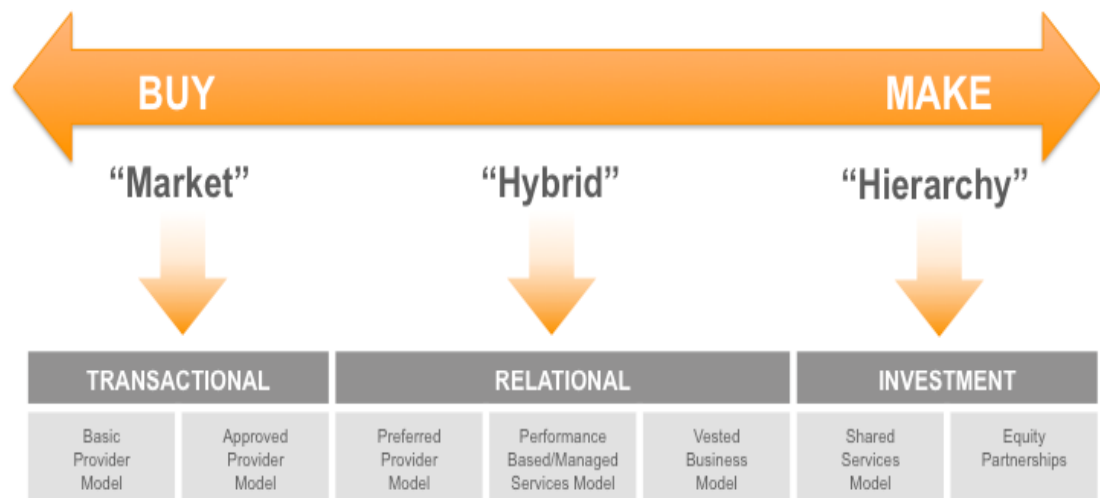


Figure 2: *Sourcing categories and models*

a. Transactional –Market category-

1. Basic provider: represents the transaction-based principle. It is frequently used to buy low cost, standardized goods and services in the market, where there are many supplier with tense competition. Generally, it has no business impact on the buyer.

2. Approved provider: It is the same as basic provider with a condition that supplier should meet the required performance for the buyer, in addition to be already pre-qualified as per the buyer procurement quality standard.

b. Relational-Market category-

1. Preferred provider: It is based-transaction model, and same as approved provider, but moving with supplier to relationship where there is an opportunity for the supplier to add differentiated incremental value to buyer's business to meet strategic objectives
2. Performance-based/ managed services: In most cases, this model is a formal with longer-term supplier agreement that combines a relational contracting model with an output-based economic model.
3. Vested sourcing business: This is hybrid relationship between supplier and buyer, where both companies commit to enter into highly collaborative arrangements, in order to create and share value for both supplier and buyer. It is beyond transaction-based concept. In other words, the parties commit to each other's success.

c. Investment-Hierarchy category-

1. Shared services: Companies with an objective to meet very complex business requirements, can always invest to develop capabilities insource, by developing an internal Shared Service Organization (SSO). The main difference from previous models, that SSO is an internal supplier and not an external one.

2. Equity partnership: This setup creates a legally binding entity. It can be in different ways, like joint-venture, cooperation agreement, etc. . . . It is usually used when an organization doesn't have necessary capabilities and refuses to outsource.

Each industry has a preferred model, or combined ones depending on the nature of business and market structure. Regarding telecommunications industry, there is no single adequate model, and multiple models can work at the same time for different business units within the same organization.

Outsourcing Decision

Going for outsource, becomes company management decision for multiple reasons. One of the key consideration, is to reduce the operation expenses and move the company focus and investment on the core competencies. However, it is extremely important before any outsourcing decision, to be able to identify carefully “What the buyer does best versus what can be done better by outsourcing” [Milligan & Hutcheson, 2006].

Normally, not all companies benefits from the outsourcing. Each related decision is linked to the individual business case. The model of “copy-paste” or “follow a successful story” in telecommunications industry and especially for Operators, doesn't always work in all locations and regions for many reasons. As example the market structure in terms of competition and demand, country labor laws, local skilled resources, industry business growth and customer behavior differ from a location and region to another.

Before moving with outsourcing, some preparations are highly recommended to be performed correctly, in order to ensure business resiliency and continuity. As example,

management team should (Milligan & Hutcheson):

- 1- Complete due diligence to discover the capabilities of each party in the final set of providers.
- 2- Establish baseline documents of current performance.
- 3- Using the industry market benchmarking, to measure expected performance against industry norms.

In other words, Outsourcing decision requires good preparation, and extensive collaboration among all involved stakeholders for that department or team, in order to streamline the existing activities, scope, responsibilities, processes, and many other related documents or procedures. This step is critical, as the outsourcing company which will take over the function, will have defined deliverables, as per the outsourcing model discussed previously.

Advantages and Risks of Outsourcing

Outsourcing has many format and models. In Telecommunications industry, and especially for a service provider or Operator, Managed Services model is the widely used [Alan Quayle, Owner and founder of Alan Quayle Company] to focus on customer complaints and satisfaction, and mainly implemented to reduce costs. However, this decision has some pros and risks. In below table, there are some points where management should pay more attention to them:

Table 1:

Advantages and Risks of Outsourcing

Advantages	Risks
<ul style="list-style-type: none">• Provider cost maintenance fees distributed among clients• Dedicated resources with required skills• No in-house training• No need for land or building to house equipment/personnel• No need to interview, training and recruiting process	<ul style="list-style-type: none">• Loss or unauthorized access of data• Data integrity & Inaccurate reporting• Inability to support service during ongoing operation• “Black Box” with low transparency• No control, only by OLA / SLA• Only 63% of average outsourced projects are completed successfully and effectively.• Difficulty in identifying performance trends or problems• Loss of revenue from customer dissatisfaction

Consequently, outsourcing decision has many dependencies on multiple areas, not only OPEX and related costs. In addition, there are some costs which are easily missed during the outsourcing business case feasibility and preparation. In the following, some of these costs:

- Feasibility study costs
- Travel Expenses to oversee projects and similar outsourcing setup
- More frequent audits
- Theft and privacy
- Legal services
- Stronger controls usually increases costs

It is well known that outsourcing has direct impact on OPEX reduction, but according to the above multiple points, it becomes quite difficult for management to decide on going outsource or not. Therefore, it is recommended to run some internal exercises, such as process optimization, procedures review, merging teams, restructuring and many others, in order to improve the efficiency and performance of the specific function, before starting to think about outsourcing.

Outsourcing in Telecommunications

Generally, and according to D.C. Fernandez and A.S. Valencia (2013, p.14), the subcontracting of productive activities characterizes the global capitalist economy in order to reduce costs and exempts companies from their accountabilities and responsibilities to labors by delegating production to other companies, regions and even to the workers themselves through the new concept of Freelancer.

A research prepared by N.N Ghikas (2012) proves that outsourcing business is a booming in the global economy with worldwide expenditure of about 3.7\$ Trillion in 2001. In addition, Business Process Outsourcing (BPO) has been presented as one of the largest components of outsourcing expansion, despite the resistance of some business organization

to outsource any related process to their core competencies.

Recently, the global trend in the telecommunications industry is to go for outsourcing, which has demonstrated the reduction in overall costs and a need to be more competitive in the international market (RR.Ahmed,J. Vveinhardt, N.Ahmad, M.Mirza).

Nowadays, customers' requirements are challenging and always asking for customized solutions with high service availability and quality. Ensuring response to the increasing demand of such requests, innovations should be a key to the continuous development success and be able to grab opportunities. Moreover, the industry competition is getting more intense with multiple players. As example, in GCC and North Morocco region, not more than single operator was present in each country 20 years ago. Furthermore, the presence of telecommunications regulator controls the market, in terms of products, prices, customer satisfaction, service quality and many others, which create more pressure on operator's management to fulfill industry and market requirements.

Looking at the telecommunications market across the globe, vendors such as Huawei, Nokia and Ericsson, started to sell solutions called "Managed Services", where they have taken all responsibilities to operate a specific part of the network, which can be segregated geographically or technological or even sometimes mixed. As example, Huawei have carried out 170 Managed Services compact solution projects across the world by just the end of first quarter of 2011. This statistic captured from the official Huawei website (<http://www.huawei.com/uk/solutions/costs-down/hw-001260.htm>), in addition to my personal experience within Huawei Middle East & Morocco, for almost 4 years, it is confirmed that Managed Services becomes actually a market trend and behavior for both Vendors and Operators, as it is seen from cost perspective as a "Win-Win" situation.

Because Operators reduce its operating costs, and vendors generate revenue and expand their market share and presence worldwide. However, is it the right decision? Does this setup work perfectly? Does it have any impact on the business process efficiency? Or end user satisfaction?

Through our research, we will try to go deep in that regard in GCC and North Morocco regions. As described earlier, outsourcing is not only “Cost Driven” decision. According to (Kate Vitasek, 2016): “Buyers find their suppliers meet contractual obligations and service levels, but they do not drive innovations and efficiencies at the pace the organization wishes. Suppliers argue that investing in their customer’s business is risky because buyers will simply take their ideas and competitively bid the work”. Consequently, ICT business is one of the most active, challenging and changing industry, where innovations and ideas are the keys to survive and keep competing in the market.

Balanced Score Card

Kaplan and Norton have introduced BSC concept to the world. They have settled a general ideas, methods, and concepts to provide a performance measurement tool, in both financial and non-financial aspects [*Balanced Scorecard Institute*].

Balanced Scorecard (BSC) has been introduced to the organization concepts and environment in the early 1990s, when big companies and huge organizations started to be hardly managed in an efficient way. Organization’s top managers, who are accountable for the long-term performance and success, looked at different methods to control, measure and implement suitable strategies in one consolidated framework [*Balanced Scorecard Institute*].

Balanced Scorecard is a strategic planning and management system widely used

in different industries and organizations. It is a framework that can be used by a variety of organizations, in term of industry, business and size. BSC is a strategic performance management tool, which includes financial and non-financial indicators, to be used for comparing goals with applied activities with the aim to evaluate the outputs and control strategy implementation. BSC is based on four fundamental perspectives, as shown in figure 1 [*Balanced Scorecard Institute*], which are: Finance, Customer Relations, internal business process and learning and growth. Financial aspects has dual role, as it focuses on the company profitability and financial organization plans. Customer perspective looks after the evaluation of customer satisfaction towards organization's brand and services. For internal business process, it directs the efforts to internal operations, in a way to let managers evaluate their activities and deliverables efficiently. This perspective makes BSC unique, compared to traditional performance measures. Finally, learning and growth are the eye over organization's human resources competencies, to be well trained and follow the new market needs. BSC becomes a recognized tool to use and combine, business routine activities with business long-term plans, while monitoring and controlling them.



Figure 3: *Balanced Scorecard pillars* (<http://www.balancedscorecard.org/Resources/About-the-Balanced-Scorecard>)

Criteria for Balanced Score Card

Balanced Scorecard is model which can be updated according to specific industry and organization. The criteria to measure each pillar differs from one company to another, and in some cases from department to another within the same organization. However, there is a methodology and a tool to follow, which will help in identifying the measurements according to the business area. In table (Knowledge Management for the

Telecommunications Industry. Thomas & Sandra 1999), there are three important criteria:

Table 2:

Arithmetic Mean and estimated ranking for Work Performance dimensions

Criteria	Meaning
Cause-and-effect relationships	- Every measure in the BSC should be of the cause-and-effect relationships with Strategy objectives
Performance Drivers	- Tangible measurements for each pillar, such as customer retention, customer satisfaction, Certified Staffs in specific trained area, delivery process duration etc.
Financial Links	- Mostly in the financial statement as overall pillar performance. However, each measurement , as example customer retention should be translated to financial interpretation

Balanced Score Card Preparation Steps

BSC is consolidated document containing all the performance measurements. Establishing that document is usually a team work activity, including strategy team within

the organization. Normally, there are four steps to go through during the BSC preparation. Below table, summarize the steps and how to tackle them (Knowledge Management for the Telecommunications Industry Thomas & Sandra 1999):

Table 3:

Four Steps to the Balanced Score Card

Steps	Details & Definition
Define the Measurement Architecture	<ul style="list-style-type: none"> - BSC is radically based on the Organization Strategy. It provides a framework to describe strategy and represent the foundation on which further design is based. As example, for financial BSC pillar, we can have revenue growth and asset utilization.
Build Consensus Around Strategic Objectives	<ul style="list-style-type: none"> - Shared understanding of the strategy among the organization leaders is critical. Next step, is to get able to list top ten strategy objectives.
Select and Design Measures	<ul style="list-style-type: none"> - Once the strategic objectives are agreed, next step is to select a measure to track the progress of the objective. - BSC measurement system should be integrated into the management system of the company. Then, three tasks should be performed:
Develop the Implementation Plan	<ol style="list-style-type: none"> 1- Identifying the current practices 2- Evaluating opportunities 3- Developing an implementation plan <p>Last step lead to data reporting and reviewing, management meetings, decision making and many other approaches.</p>

Previous Studies

In this part of the research, a literature review will be conducted on the concept of Balanced Scorecard and implemented across the world as a performance enhancement technique in different type of organizations:

1. Huang, (2009) the paper talks about the scope of using Balanced Scorecard based approach for strategic planning with KBS (Knowledge Based System). The work is largely based on theoretical observation of the researcher in linking the processes under BSC into the development of a knowledge based system for enterprises that could possibly work as the basis of strategic planning. The study was based on non-parametric AHP method to analyze the various strategies followed by organizations. The work suggests prioritizing the analytical hierarchy processes of all the measures and the strategies in the BSC knowledge based system. The uniqueness of the work is in deriving practical applicability of the theoretical concepts. The study has tried to validate the fact that BSC can be used as a tool for goal setting and creating performance measurement systems. The author here has displayed the methods of establishing a BSCKBS procedure for achieving organizational competitiveness. The study can be used as a blueprint in organizational domains to identify and manage the strategic indicators of performance. For implementation of the BSCKBS structure the author has recommended the following steps in development of the BSCKBS architecture. The first step is the translation of the vision developed by the management. Second, is creating a web based (HTML and ASP) designed platform for communicating and linking and the project team members. Third, the strategic planning was carried

by the project team? Finally, the project team sit down to create the organizational strategies on various functional areas to derive the sustained competitive advantage. The BSCKBS can be customized according to the needs of the organization and the distinct area of competitive advantage it wants to enjoy over time. Information technology become an enable in the same. The author suggests that further studies can empirically try to validate the suggested model in a real-life scenario.

2. Government-linked company in Maysia, Performance Measurement and Balanced Scorecard implementation. In the recent decades, global changes have been occurred to government agencies in Malaysia, and their transformation into semi-governmental or private organizations, and called “Government-linked Companies (GLCs). Malaysian government looks after an important tool which may help to measure the performance, and keep everyone on the track for Malaysian Vision 2020, which doesn’t include only financial goals, but also non-financial ones. The main problem which trigger this initiative, is the underperformance of GLCs in terms of operations and profitability in the past 18 years. Consequently, the BSC model was chosen by Malaysian GLC. The article is based on research methodology of fourteen semi-structured interviews with relevant involved with BSC implementation in selected GLC, participants are mainly from accounting departments, top and middle management. In GLCs, BSC was implemented over the whole company from high management till executive levels. GLCs have adopted BSC as it is defined with its four perspectives, previously described. However, they have faced some challenges to adopt precise measures, initially, but this problematic has been solved with the engagement of top management, proper

communication channel, in addition to the IT tools. The article doesn't detail the KPI (Key Performance Indicators) used by GLC, but it looks after the examination of the role of management accountants, in the implementation of the BSC. Management accountants were behind GLCs transformation, and BSC implementation. They played a critical role in this regard. They worked closely with all departments as Human Resources, Engineering, etc...Management accountants were acting as many functions in one title, from project manager to business advisors. Additionally, they have explored Continuous Improvement Management tools and concepts, to help in the culture transformation and BSC implementation. Finally, BSC implementation in GLC was followed as per the four perspectives. The article states that BSC was successfully implemented, due to the high top management involvement, efficient communications across organization units and employees, and the change of the culture helped significantly.

3. Here, it is about non-profitable organism, especially in education industry. KMU (Karamanoglu Mehmetbey University) is looking to improve its accounting education department, from all aspects, learning techniques and methods, students' performances and many other issues related to accounting department within KM University. Accounting education is defined in KMU as the activities involved into teaching methods and techniques, to be followed as process to collect data, in order to be able to apply them in business environment, which can effect decisions, monitoring, classifying, reporting and evaluating this data. To qualify the efficiency, and control KMU accounting department strategy, BSC was adopted as the main performance measurement tool. Consequently, the four perspectives

constitute the road map, however, what about indicators, how to decide on them? KMU has initiated a research study throughout a well oriented survey, to define the gaps, indicators and how to move forward. 228 students were interviewed in 3rd and 4th grades, out of total 560 students. Multiple questions to address learning methods, students' outputs, their career, and many other concerns. Therefore, KMU accounting department came up with below KPI (Key Performance Indicators), to work on them in different levels, based on the survey results and analysis.

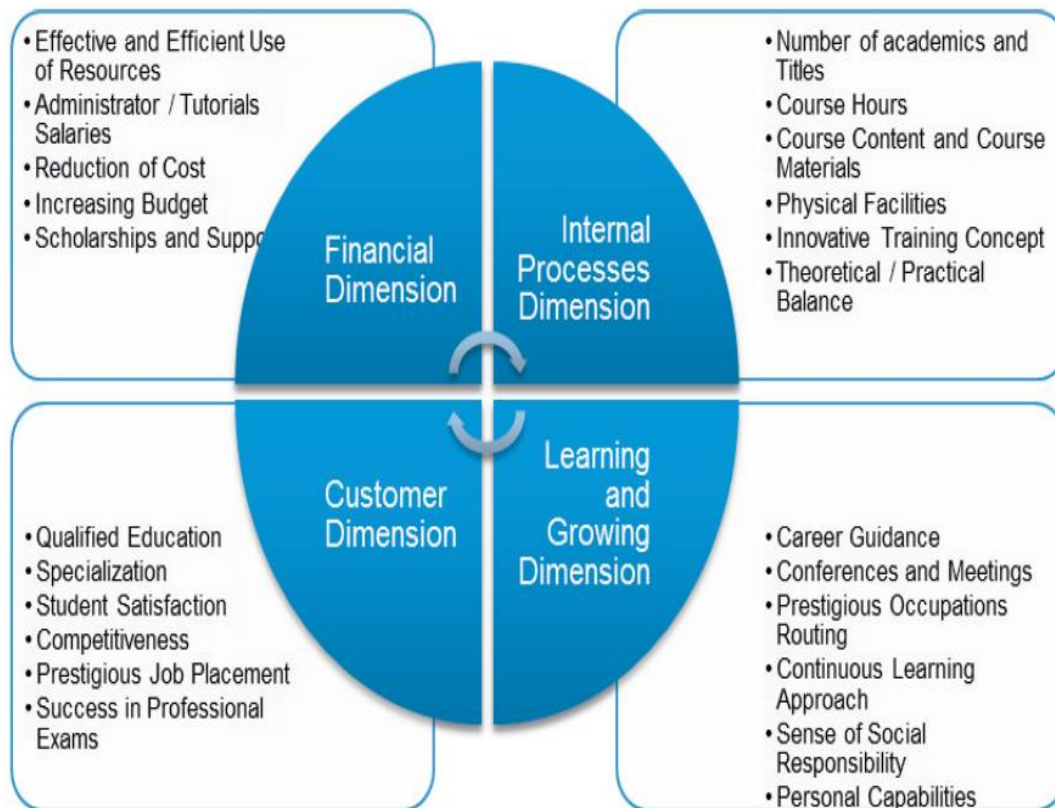


Figure 4: *KMU Accounting Department Scorecard*

Using the above detailed balanced scorecard, KMU has concluded that strengths and weaknesses of the accounting education, within business administration department are well identified. Only the financial dimension was not explored in the survey, and not measured because of the type of organization. University is non-profit organization, however, this dimension can be useful to be efficient in resources optimization and cost control. The survey analysis was quite positive with some negative points, to improve them based on the BSC. As summary, even non-profitable organization benefits from BSC theory, to improve multiple areas, in learning throughout developing human capabilities, in parallel to optimize university resources efficiently, and fulfill its social and economic obligations.

4. This case treats a profitable organization, where the purpose of this study is to find out how Finnish based companies apply the BSC? Is it explored as an improved performance measurement system? Or, as strategic management system? In 2001, when BSC has been introduced effectively to Finnish-based companies. First of all, the study confirmed that all interviewed 17 companies used BSC as it is described theoretically, in other words, all companies use the concept of four perspectives that constitutes the pillars of the BSC, except 2 service enterprises, where they have both added a fifth perspective called “employee” to have a well tracked and controlled strategy and measures toward their staffs. An important idea was introduced by Kaplan and Norton in the year 1996, to link the balanced scorecard measurements to strategy, while assuming the cause-and-effect relationship. Analysis of Finnish-based companies was conducted through research, and semi-structured interviews. Interviewed persons were from various department,

especially accounting, finance, CEO and middle management. BSC applications were not identical in all Finnish companies, some of them applied it to business unit level, others to department level only, or even to a single organization level, depends on the needs and its benefit for the enterprise. From the research, BSC was introduced for mainly five reasons:

- i. BSC translates strategy into action. It was seen as a bridge between strategy and operations.
- ii. Quality programs and various types of quality awards sought by organizations.
- iii. To support a culture change in the company
- iv. Motives toward fads and fashion. BSC introduction was influenced by consultants, who sold the idea and concept.
- v. To abandon old traditional budgeting.

All above articles are aligned regarding the BSC concept and four perspectives. However, each one focus on its implementation and indicator measurements. The fundamental rule in BSC, which is “Performance management tool for financial and non-financial dimensions” has been respected and followed in all above articles.

Balanced Score Card in our Research

As our research is based on a targeted survey for managers within the core business of different operators in GCC and North Morocco regions, accompanying with some interviews to some of experienced professionals within the industry, we will try to adapt the survey results as measurement tool to find out the response of field professionals to the

initial three challenges defined earlier in our research problem, which constitutes the 3 pillars of the BSC (Customer Experience, Business Efficiency and Network Upgrades and modernization (Knowledge & Innovation)).

CHAPTER 3: RESEARCH METHODOLOGY

We cover through this chapter different ways and methodologies explored to collect the necessary data for the interest of our research. As this is targeted research across wide regions, GCC and North Morocco, and designated to be addressed to an experienced professionals in telecommunications industry, especially operators, it requires interviews and questionnaires. In addition, this research adopts the descriptive method.

Sample of the study

The questionnaire consists of 28 questions, varying from demographic to organization performance related questions. This study was carried out using a descriptive analysis survey design as well as co-relational research. The questionnaire was collected from operators' employees in the GCC and North Morocco regions, focusing on professionals in telecom industry and targeting those manage outsourced and insourced employees within the operator core competency. It has as an objective to investigate the impact of outsourcing core competencies on organization performance pillars, according to the balanced score concept.

All employees in the telecommunications operators, working in the organization core competency and managing mixed (outsourced and insourced staffs) in the GCC and Morocco lands, have been targeted. 40 questionnaires have been distributed, 34 questionnaires have been returned, 32 questionnaires have been analyzed and 2 have been excluded because they are not complete, as seen in the following table:

Table 4:

Questionnaires Distributed, Received, Excluded and Accepted

Questionnaires Distributed	Questionnaires Received	Questionnaires Excluded	Questionnaires Accepted
40	34	2	32

Population

The study targeted the major telecommunications operators in GCC and Morocco, mainly Ooredoo Group, Ooredoo Qatar, Etisalat in UAE, Zain and Mobily in KSA, Omantel in Sultanate Oman and finally INWI and Morocco Telecom in Morocco.

Ooredoo Group has presence in Algeria, Tunisia, Kuwait and Oman which provide us a wide vision and inputs on the outsourcing strategies, especially that we interviewed a Senior Director in Ooredoo group. Population was targeted to get response from highly experienced professionals in the operators, who worked in technology and have practical knowledge and understanding of Core competency outsourcing, in telecommunications industry-Operators- in specific.

Tools

Data collection through the questionnaire will be treated and analyzed using corresponding tool The main software mostly used to study and examine the collected survey responses is the SPSS (Statistical Package for the Social Sciences), which is a software for statistical data analysis available in university laboratory. As the survey was prepared in paper and distributed to respondents, data entry was done in an excel sheet, where the export option in SPSS allowed to upload the data in excel format to SPSS

software to analyze.

Validity of the Questionnaire

Research tool validity and integrity have been reviewed and approved after an official demand to the QU-IRB (Qatar University -Institutional Review Board-) Committee. After all modifications to accommodate their advices and comments, to elaborate a professional and conform survey, it was approved by QU-IRB Committee with Ethics Approval No.: **QU-IRB 784-E/17**.

Reliability of the Questionnaire

Cronbach's alpha is the widely utilized as a common measure of internal consistency or data reliability. It is recommended to use it when you have multiple Likert questions in a survey/questionnaire that form a scale and your target is to verify if the scale performed is reliable.

Cronbach's Alpha Coefficient has been calculated using SPSS statistics tool. It resulted in the following:

Table 5:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.650	.666	16

Table 6:*Item-Total Statistics*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q12	51.69	26.867	.496	.799	.598
Q13	51.72	25.112	.682	.830	.566
Q14	51.09	28.217	.466	.623	.609
Q15	52.09	25.701	.647	.891	.574
Q16	52.25	25.355	.740	.819	.563
Q17	51.78	27.660	.545	.676	.599
Q18	52.94	30.706	.119	.723	.655
Q19	52.66	30.491	.081	.787	.667
Q20	51.63	32.371	-.057	.496	.685
Q21	51.72	31.564	.027	.819	.669
Q22	52.03	30.805	.073	.804	.666
Q23	51.72	29.951	.362	.512	.627
Q24	53.09	30.862	.204	.809	.642
Q25	52.59	31.668	.063	.465	.658
Q26	51.41	31.862	.099	.663	.651
Q27	53.03	33.322	-.122	.774	.680

Internal consistency based on the Cronbach's Alpha Coefficient ranges between 0.566 and 0.680. Adding to that the Cronbach's Alpha coefficient is 0.650. Thus, most of the values are greater than 0.60, and it is an indicator that the instrument is consistency, authenticity, and reliability in conducting the statistical analysis.

From Question 12 to 17, all Cronbach Alpha coefficients are between 0.566 and 0.609, because all these questions reflects the personal interaction degree with 3 different departments (customer support and satisfaction, learning and innovation, process and business efficiency).

Data Source

Our research is fundamentally based on three axes sources for collecting data:

- **Primary Data:** Focus on data entry from professionals who filled the questionnaire. The survey includes non-financial variables of the research model represented in the Balanced Scorecard pillars.
- **Secondary Data:** It is mainly based on the literature discussion and review through the research subject articles, books, published studies, conferences and use cases.
- **Interview :** I got the chance to interview two senior directors as below :
 - **Dr.Ayad Alani:** He has more than 25 years' experience in the telecom industry. He occupied multiple management and directory level in multiple organizations, and especially operators. He is working currently as “Senior Director – Strategy & Performance” in Ooredoo Group, and reporting directly to Ooredoo Group CTO.
 - **Mr. Mohammad Ahmad Abdel Rahman Abu Shawish:** He has more than 15 years' experience in telecommunications industry, with mainly in operators within GCC region. He occupies currently “Director Network Operations Center” position at Ooredoo -Qatar-, and reporting directly to Ooredoo-Qatar- CTO.

Sample Data Analysis

Except demographic questions (11 inquiries) which are playing a filter role, to get the relevant respondents to our research problem, there are 16 questions which are scale designed from 1 to 5, and finally a question for surveyor feedback and reflection on the

subject.

Descriptive statistics represented in the arithmetic mean, standard deviation, percentages, frequency and relative importance (based on the five-point scale for each paragraph), which has been identified as follows:

$$\text{Length of the period} = \frac{\text{The upper limit of the alternative} - \text{The minimum of the alternative}}{\text{Number of levels}}$$
$$= \frac{5-1}{3} = 1.33$$

Intervals categorization will be as following

- The level is Low when $1.00 \leq \text{Mean} \leq 2.33$
- The level is Moderate when $2.34 \leq \text{Mean} \leq 3.67$
- The level is High when $3.68 \leq \text{Mean} \leq 5.00$

CHAPTER 4: RESULTS

Description of the Sample Characteristic

In this chapter, we will analyze the different description and functional of the demographic characteristics per region, such as No. of total years telecommunications experience, No. of years within the current employer, education background, managing outsourced staff within the same team etc..., in order to have a clear categorization of the sample study data:

Table 7:

Morocco – Region 3- analysis of 10 respondents

Average No. of total years of Experience in Telecom	2.7
Average No. of years within current employer	1.9
Education background	1
Managing outsourced staff within the same team	1.1
Function within the organization	1

Referring back to the survey structure, we find that Morocco study sample shows that all region 3 respondents' works in the Core of telecommunications domain. In addition, they have near to 10 years of telecommunications experiences. Plus, all of them have communication or Electrical engineering education background with the important factor that 9 out of 10 respondents manage outsourced staffs within the same team, which we give

us an accurate feedback on the survey questions.

Table 8:

GCC except Qatar – Region 1- analysis

Average No. of total years of Experience in Telecom	2.9
Average No. of years within current employer	1.9
Education background	1.2
Managing outsourced staff within the same team	1.4
Function within the organization	1

As per above table, region 1 (GCC except Qatar) is rich of qualified professionals, as we can see that average of respondents have near to 16 years of telecommunications experience, in addition to that all of them perform their job in the core telecommunications. In terms of education background, 2 out of 10 are graduate in different engineering concentration than communications. For managing outsourced staffs within the same team, 4 out of 10 do not manage mixed sourced (in-sourced and outsourced) staffs.

Table 9:

Qatar – Region 2- analysis

Average No. of total years of Experience in Telecom	3.33
Average No. of years within current employer	2.83
Education background	1.41
Managing outsourced staff within the same team	1.083
Function within the organization	1

Qatar table analysis demonstrates encouraging results toward the quality of sample data. Actually, most of the respondents have more than 11 years of experiences, in addition to that all of them are expert in the core domain of telecommunications. Ooredoo is retaining employees for near to 10 years, who are graduated from engineering field with some Business Administration education background. Concerning the outsourced staffs, 11 out of 12 manage outsourced staffs, which is positive factor for our consequent survey questions.

Summary

Region 1 & 3 are very close in the demographic analysis, however, Qatar has some similar findings such as function within the organization, but differences as well as education background and both averages of total experiences and years within current employer. Consequently, we can consider that all regions are on the same track that encouraging and promising in our research analysis.

Analysis of the Survey Results

During the survey, there are 5 direct questions regarding outsource of telecommunications core competency, considering 3 regions. We will analyze all 3 regions at once, then we will run ANOVA statistical analysis for three groups.

Using descriptive statistics for questions 12, 13, 14, 20, 21, 22, 23, 24, 26 and 27, we will be able to analyze the surveyors' feedback and qualify them based on the length of period methodology.

Impact on innovation efficiency:

Table 10:

Descriptive statistics of Question 20-Innovation & continuous Learning-

Descriptive statistics	
Mean	3.93
Median	4
Standard Deviation	1.07
Range	4
Minimum	1
Maximum	5
Count	32

It is clear that most of the experienced surveyed professionals qualify outsourcing as an important threat to innovation and continuous learning, with a mean of 3.93.

Impact on internal process efficiency:

Table 11:

Descriptive statistics of Question 21-Internal Process Efficiency-

Descriptive statistics	
Mean	3.84
Median	4
Mode	4
Standard Deviation	0.98
Range	4
Minimum	1
Maximum	5
Count	32

Similar to innovation and continuous learning efficiency, the professionals confirm that outsourcing has negative impact on internal process efficiency.

Impact on customer support and satisfaction:

Table 12:

Descriptive statistics of Question 22-Customer Support & Satisfaction-

Descriptive statistics	
Mean	3.53
Median	4
Mode	4
Standard Deviation	1.07
Range	4
Minimum	1
Maximum	5
Count	32

Contradictory to previous tests of innovation and internal process efficiency, outsourcing customer support and satisfaction core competency is not seen by professional to be a threat to failure. This is interesting finding, because of the managed services, as discussed under chapter *2.3 Advantages and Risks of Outsourcing*

Operator Investment on 3 pillars of balanced score card:

Through the 3 questions (12, 13 & 14), we will qualify how operators invest in the 3 pillars of balanced score card.

- *Investment in Innovation & continuous learning*

Table 13:

Descriptive statistics of Innovation & Continuous Learning investment-

Descriptive statistics	
Mean	3.87
Standard Error	0.17
Median	4
Mode	4
Standard Deviation	0.97
Range	3
Minimum	2
Maximum	5
Count	32

All surveyed operators invest significantly in continuous learning and innovation, as the mean is higher than 3.68.

- *Investment in internal processes development and improvement*

Table 14:

Descriptive statistics of internal process development investment

Descriptive statistics	
Mean	3.84
Standard Error	0.17
Median	4
Mode	4
Standard Deviation	0.98
Range	3
Minimum	2
Maximum	5
Sum	123
Count	32

All surveyed operators works toward the process efficiency by investing heavily in development and improvement of their internal processes, as the mean is higher than 3.68.

- *Investment in Customer support & satisfaction*

Table 15:

Descriptive statistics of customer support investment

Descriptive statistics	
Mean	4.46
Standard Error	0.14
Median	5
Mode	5
Standard Deviation	0.8
Range	3
Minimum	2
Maximum	5

It is obvious that operators' investment in customer support and satisfaction is the highest across the other investments (innovation or process efficiency). The mean of the test is 4.46 which is extremely high, and explains the competitiveness of the telecommunications market.

Comparison between Insourced & Outsourced staffs in improving the process and learn by themselves

Here, we will run 2-T test: Paired Two Sample for Means with Alpha 0.05 (level of confidence of 95%). Consequently, hypotheses will be as follow:

- ✓ H0: There is no difference between insourced and outsourced staffs in improving the process and self-learning.
- ✓ H1: There is a difference between insourced and outsourced staffs in improving the process and self-learning.

After running the test, we come with below statistical table:

Table 16:

Insourced & Outsourced staffs comparison in improving the process by themselves

T-Test: Paired Two Sample for Means		
	<i>Q23</i>	<i>Q24</i>
Mean	3.84	2.46
Variance	0.39	0.45
Observations	32	32
Hypothesized Mean Difference	0	
df	31	
t Stat	9.3	
P(T<=t) one-tail	7.97762E-11	
t Critical one-tail	1.69	
P(T<=t) two-tail	1.59552E-10	
t Critical two-tail	2.03	

We have P-value is very less than Alpha 0.05. So, we reject H0 and we can conclude that there is a difference between insourced and outsourced staffs in improving the processes and self-learning.

Comparison of employment preference between Insourced & Outsourced staffs.

Here, we will run 2-T test: Paired Two Sample for Means with Alpha 0.05 (level of confidence of 95%). Consequently, hypotheses will be as follow:

- ✓ H0: There is no difference of employment preference between Insourced & Outsourced staffs.
- ✓ H1: There is a difference of employment preference between Insourced & Outsourced staffs.

After running the test, we come with following statistical table:

Table 17:

Employment preference between insourced & outsourced staffs

T-Test: Paired Two Sample for Means		
	<i>Q26</i>	<i>Q27</i>
Mean	4.15	2.53
Variance	0.32	0.64
Observations	32	32
Hypothesized Mean Difference	0	
df	31	
t Stat	7.58	
P(T<=t) one-tail	7.43859E-09	
t Critical one-tail	1.69	
P(T<=t) two-tail	1.48772E-08	
t Critical two-tail	2.03	

We have P-value is very less than Alpha 0.05. So, we reject H0 and we can conclude that there is a difference of employment preference between insourced and outsourced staffs.

For the rest of the data analysis, we will try to compare the three regions, in term of our research parameters, using ANOVA statistical model. This model helps in analyzing and comparing 3 groups having the same parameter.

Comparison of insourced staff self-learning improvement among 3 regions

Here, we will run ANOVA test with Alpha 0.05 (level of confidence of 95%).

Consequently, hypotheses will be as follow:

- ✓ H0: Insourced staffs Self learning improvement among the 3 regions is the same.

- ✓ H1: Insourced staffs Self learning improvement among the 3 regions is different.

After running the test, we come with following statistical table:

Table 18:

Comparison of insourced staffs self-learning improvement among the 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	1.86	2	0.93	2.62	0.09	3.35
Within Groups	9.6	27	0.35			
Total	11.46	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that insourced staffs self-learning improvement across all the 3 regions is the same.

Comparison of outsourced staff self-learning improvement among 3 regions

Here, we will run ANOVA test with Alpha 0.05 (level of confidence of 95%).

Consequently, hypotheses will be as follow:

- ✓ H0: Outsourced staffs Self learning improvement among the 3 regions is the same.
- ✓ H1: Outsourced staffs Self learning improvement among the 3 regions is different.

After running the test, we come with following statistical table:

Table 19:

Comparison of outsourced staffs self-learning improvement among the 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	0.2	2	0.1	0.2	0.81	3.35
Within Groups	13.3	27	0.49			
Total	13.5	29				

The F-critical is higher than F-stat. So, we can't reject H₀ and we can conclude that Outsourced staffs self-learning improvement across all the 3 regions is the same.

Comparison of employee staff recruitment preferences among 3 regions

Here, we will run ANOVA test with Alpha 0.05 (level of confidence of 95%).

Consequently, hypotheses will be as follow:

- ✓ H₀: Preferences of employee staff recruitment among the 3 regions is the same.
- ✓ H₁: Preferences of employee staff recruitment among the 3 regions is different.

After running the test, we come with below statistical table:

Table 20:

Comparison of employee staff recruitment preferences among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	0.86	2	0.43	1.25	0.3	3.35
Within Groups	9.3	27	0.34			
Total	10.16	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that Preferences of employee staff recruitment among the 3 regions is the same.

Comparison of outsourced staff recruitment preferences among 3 regions

Here, we will run ANOVA test with Alpha 0.05 (level of confidence of 95%).

Consequently, hypotheses will be as follow:

- ✓ H0: Preferences of outsourced staff recruitment among the 3 regions is the same.
- ✓ H1: Preferences of outsourced staff recruitment among the 3 regions is different.

After running the test, we come with below statistical table:

Table 21:

Comparison of outsourced staff recruitment preferences among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	3.46	2	1.73	2.94	0.06	3.35
Within Groups	15.9	27	0.58			
Total	19.36	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that Preferences of outsourced staff recruitment among the 3 regions is the same.

Comparison of the impact of outsourcing on balanced score card pillars among 3 regions

In our research, we focus on the 3 pillars (innovation and continuous learning, internal process efficiency and customer support and satisfaction), so for each one, we will

run ANOVA test with Alpha 0.05 (level of confidence of 95%). Consequently, hypotheses will be as follow:

- ***Innovation & Continuous learning***

H0: Outsourcing impact on innovation & continuous learning among the 3 regions is the same.

H1: Outsourcing impact on innovation & continuous learning among the 3 regions is different.

After running the test, we come with below statistical table:

Table 22:

Impact comparison of outsourcing on Innovation & Learning among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	0.6	2	0.3	0.23	0.79	3.35
Within Groups	34.1	27	1.26			
Total	34.7	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that outsourcing impact on innovation & continuous learning among the 3 regions is the same.

- ***Internal Process Efficiency***

H0: Outsourcing impact on internal process efficiency among the 3 regions is the same.

H1: Outsourcing impact on internal process efficiency among the 3 regions is different.

After running the test, we come with the following statistical table:

Table 23:

Impact comparison of outsourcing on Internal Process Efficiency among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	0.46	2	0.23	0.22	0.79	3.35
Within Groups	27.7	27	1.02			
Total	28.16	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that outsourcing impact on internal process efficiency among the 3 regions is the same.

○ *Customer support & satisfaction*

H0: Outsourcing impact on customer support & satisfaction among the 3 regions is the same.

H1: Outsourcing impact on customer support & satisfaction among the 3 regions is different.

After running the test, we come with below statistical table:

Table 24:

Impact comparison of outsourcing on customer support among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	1.66	2	0.83	0.75	0.47	3.35
Within Groups	29.7	27	1.1			
Total	31.36	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that outsourcing impact on customer support & satisfaction among the 3 regions is the same.

Status comparison of already outsourced Core business among 3 regions

As previous model, we will run ANOVA test with Alpha 0.05 (level of confidence of 95%). Consequently, hypotheses will be as follow:

- ✓ H0: Already outsourced Core business status among the 3 regions is the same.
- ✓ H1: Already outsourced Core business status among the 3 regions is different.

After running the test, we come with below statistical table:

Table 25:

Status Comparison of already outsourced Core business among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	7.46	2	3.73	5.6	0.009	3.35
Within Groups	18	27	0.66			
Total	25.46	29				

The F-critical is lower than F-stat. So, we can reject H0 and we can conclude that already outsourced Core business status among the 3 regions is different. Consequently, to analyze deeply we will run 2-T test between each group to find out the group which is significantly different.

- *Comparison between Region 1 & Region 2*

H0: There is no difference between region 1 & 2

- H1 : There is a difference between region 1 & 2

Table 26:

Status Comparison of already outsourced Core business between Region 1 & 2

	Q18-Reg1	Q18-Reg2
Mean	2.4	3.2
Variance	1.15	0.62
Observations	10	10
df	9	
t Stat	-2.22	
P(T<=t) one-tail	0.02	
t Critical one-tail	1.83	
P(T<=t) two-tail	0.05	
t Critical two-tail	2.26	

We can't reject H0 because P-value is higher than 0.05. Thus, there is no difference between both regions 1 & 2 in the outsourced Core business.

- *Comparison between Region 1 & Region 3*

- H0: There is no difference between region 1 & 3

- H1 : There is a difference between region 1 & 3

Table 27:

Status Comparison of already outsourced Core business between Region 1 & 3

	Q18-Reg3	Q18-Reg1
Mean	2	2.4
Variance	0.222222	1.155556
Observations	10	10
df	9	
t Stat	-1	
P(T<=t) one-tail	0.171718	
t Critical one-tail	1.833113	
P(T<=t) two-tail	0.343436	
t Critical two-tail	2.262157	

We can't reject H0 because P-value is higher than 0.05. Thus, there is no difference between both regions 1 & 3 in the outsourced Core business.

- ***Comparison between Region 2 & Region 3***
 - H0: There is no difference between region 2 & 3
 - H1 : There is a difference between region 2 & 3

Table 28:

Status Comparison of already outsourced Core business between Region 2 & 3

	<i>Q18-Reg3</i>	<i>Q18-Reg2</i>
Mean	2	3.2
Variance	0.22	0.62
Observations	10	10
df	9	
t Stat	-3.34	
P(T<=t) one-tail	0.004	
t Critical one-tail	1.83	
P(T<=t) two-tail	0.008	
t Critical two-tail	2.26	

We reject H0 because P-value is lower than 0.05. Thus, there is a difference between both regions 3 (Morocco) & region 2 (Qatar) in the outsourced Core business. Actually, analyzing the question number 25 (outsourcing drivers within your organization) of the survey, we find that most of both regions' respondents are justifying the outsourcing decision by the OPEX saving. However, taking into consideration the service cost and quality in Qatar and Morocco, in addition to the market structure and competitiveness, Moroccan telecom operators are more under pressure to reduce their operations costs. On the other part, all Moroccan respondents are emphasizing to limit the outsourcing to non-Core business only, to maintain a good service quality (Last question in the survey No.28).

Comparison of outsourcing plan of Core business status among 3 regions

We will run ANOVA test with Alpha 0.05 (level of confidence of 95%). Consequently, hypotheses will be as follow:

- ✓ H0: Outsourcing plan of Core business progress among the 3 regions is the same.
- ✓ H1: Outsourcing plan of Core business progress among the 3 regions is different.

After running the test, we come with below statistical table:

Table 29:

Comparison of outsourcing plan of Core business status among 3 regions

Source of Variation	SS	df	MS	F	P-value	F critical
Between Groups	6.66	2	3.33	2.85	0.07	3.35
Within Groups	31.5	27	1.16			
Total	38.16	29				

The F-critical is higher than F-stat. So, we can't reject H0 and we can conclude that Outsourcing plan of Core business progress among the 3 regions is the same among the 3 regions.

CHAPTER 5: INTERVIEWS

Interviews are formulated to get direct answers of the outsourcing impact on balanced score card pillars, and a summary question regarding feedback, vision and thoughts of outsourcing strategy. Five questions intended to be answered by directory level employees and highly experienced professionals, in order to reflect their visions and thoughts regarding the operators' strategies toward outsourcing the core competencies. The Questions are:

1. Some operators across GCC have started to outsource part of their Mobile or Fixed infrastructure design, operations and maintenance, which represent the core competency of a telecommunication provider -Operator-. What's your feedback and thoughts about this strategic movement?
2. Do you find that outsourced staffs, in core competency area of a telecommunications service provider, would impact the internal process & operation efficiency?
3. Do you find that outsourced staffs, in core competency area of a telecommunications service provider, would negatively impact the internal innovation and continuous learning?
4. Do you find that outsourced staffs, in core competency area of a telecommunications service provider, would negatively impact the service quality and customer satisfaction/retention?
5. This is the final one, how do you qualify the outsourcing of a telecom provider core competency? Is it an opportunity or threat? And Why?

Interview I

I had the opportunity to interview Dr. Ayad Alani, working as Senior Director Planning and Performance at Ooredoo Group, with more than 26 years' experience in telecom industry. He answered the 5 questions as below:

Question 1: Outsourcing the core competencies in telecom operator, whether mobile or fix, design planning, operations and maintenance can really pose a high risk to the future business of the operator. This can really lead to the managed service vendor having full control over the network in terms of design and operations costs and this where the danger is, however having said that this is one model that if the operator wants to really control over their own business. Another model that really still work if the operator is not interested in running their infrastructure but getting it outsourced, this could lead to a revenue sharing with managed services, and could be another valuable business as well. It all depends how is the future strategy of an operator would shape up.

Question 2: The outsourced staffs in a core competency of a telecom operator would impact the internal processes and operations efficiency, it can be both positive and negative. If the model is revenue sharing with the service provider then, it will be highly efficient as the vendor or the outsource company would like to really minimize their operational costs, so they will run a very effective internal process and high operational efficiency. However, if the business has been outsourced without real control by the operator over the business, then this could lead to a really ineffective process not even effective operations as the cost will be passed on back to the service provider or vendor.

Question 3: Here is about the outsourcing business model. If it is based on revenue

sharing concept, outsourcing will not badly impact the innovation and continuous learning environment and processes.

Question 4: If the managed services contract explicitly includes the quality of service and customer satisfaction and retention pace based on clear KPI and delivered, then there shouldn't be any negative impact. However, personally I believe this is not the way to go since nothing can really substitute lack of customer satisfaction, and this is where the business loss no matter what KPI or penalties being placed on the managed service provider, but this will work positively in a revenue sharing model between the managed services provider or vendor and the telecom operator as it will be in their vested interest to really retain customer and have a good quality of service to increase their revenue share in the business.

Question 5: It is certainly a threat to a traditional telecom operator, as a traditional telecom business is very slow to adapt to new challenges out of the business and in the world. However, the positive of the outsource of core competency if it is done well and in very thoughtful way and in a very business focus way, that could be an opportunity to really reduce cost and make reasonable profit as well, and the whole environment and telecom landscape in the traditional setup will have to really completely change and revamp.

Interview II

I had the opportunity to interview Mr. Mohammad Ahmad Abu Shawish, working as Director Network Operations Center at Ooredoo Qatar, with more than 15 years' experience in telecom industry. He answered the 5 questions as below:

Question 1: It mainly depends on the driver of this move, some companies go into

that direction due to financial objectives, and some due to the speed technology is moving, and unable to follow the trend, and choose to explore the vendor's knowledge and expertise. In my opinion, going for core competency, and if the driver is only the financial, then I doubt is wise decision, especially that's the strength of the company, unless, it goes to low risk activities such as field function.

Question 2: One of the main mistakes, that companies may falls in when they decide to go with outsourcing, is the continuity of internal processes implementation like their own staffs are there. Going for outsourcing decision, regardless if it is core competency or field operations, the contract should be done in a strong way to ensure that processes of the outsourced firm should match the company internal processes, before the outsourcing implementation for adaptation and smooth transformation, else it will impact internal processes efficiency of both companies.

Question 3: Assuming an operator outsources its core competency to another company, so it is mainly, to be fast to market and buy the technology. In my opinion, going with a vendor, which should be the best company to outsource the operations to, because they have already the technology, and huge pool of expert resources to be fast to market. So, the telecom operator can get the benefits of outsourcing the core competency. At the same time, the operator should invest more in the middle and senior management, to be able to innovate and always look for continuous improvement, even if the operation is handled by another company, but they need always to look for the translation from new technology to customer experience and requirements.

Question 4: Outsourcing can improve the customer satisfaction and retention, only if the contract of managed services is built in a way to have very strong SLA, network

availability and KPI, which can ensure a better customer experience, but the main player here will be the operator with its sales and marketing departments, because they are responsible to translate a good network into a good customer experience. Because customer experience is not only built on a good network, it has to be an End-to-End customer experience, starting from the channels where the customer is interacting with the company, to the product, and those have no relation with network quality, so you can have a good network, but a bad product on it.

Question 5: Actually, it can be either an opportunity or a threat. It refers to the way outsourcing is performed. If it is done for only saving money, then achieving a better customer experience and time to market will be difficult, because the contract is structured to reduce costs, and here outsourcing stands as threat. Because the main concern will be looking for cheaper resources, who are not able to deliver or manage the network as same as original team. Actually, outsourcing contract should be done in first place in a way that can ensure a strong network KPIs, a fast response time, high network availability. In addition to engaging vendor experts to access latest technology, consequently, in this case outsourcing becomes an opportunity

Summary

Outsourcing for a telecommunications operator has a specific setup to be a successful strategic decision. The outsourcer company engagement and dedication is the key to meet and even exceed outsourced organization expectations. A revenue sharing model presents a suitable way to get the full availability of the outsourcer resources, and his commitment to work on long term objectives, such as enhancement of customer support, process efficiency and continuous learning. Through this approach, both

organizations share the same interests and work toward the ultimate goal of business growth.

On the other hand, another model of managed services can be adopted, but it necessitates internal preparation and should not be driven by cost optimization objective only. Going-to Market quickly, delivering the art-of-edge technology to the customers, and developing organization efficiency and innovation culture should be part of the outsourcing strategic decision motifs. Being successful by adopting this model, requires solid and strong contract agreement, internal process streamlining, organization restructuring, and finally outsourcing company to be engaged by aligning its own processes to meet the service provider ones.

CHAPTER 6: DISCUSSION & ANALYSIS

Based on the statistical data analysis and interviews, we can reach to the following findings and results regarding the research questions.

Regarding the investment on the three BSC pillars, telecom operators believe that is necessary to invest on them to stay competitive and be active in the market. This is very solid outcome, showing how BSC is implemented within different telecommunications providers. An interesting finding, is the huge investment trend in customer support and satisfaction more than others. This is self-explanatory, because of the red competition in both surveyed markets (GCC & Morocco), where number of mobile subscribers exceeds the population, as per below table:

Table 30

Mobile subscribers per country vs. population.

Country	Population (Year, 2015)	Number of subscribers (Year, 2015)
Morocco	34.8 Million	41.5 Million
Qatar	2.48 Million	3.55 Million
KSA	31.55 Million	47.93 Million
Oman	4.199 Million	6.86 Million
UAE	9.15 Million	19.9 Million

Source: <http://www.worldometers.info/world-population/population-by-country/> and <https://data.worldbank.org/indicator/IT.CEL.SETS>

In addition, performing in such business environment, creates a pressure on the costs to financial indicators to achieve different targets.

Results analysis demonstrate that all three regions qualify outsourcing as threat to the organization innovation, continuous learning and process efficiency. In addition, both interviewees confirm that outsourcing without a proper preparation, and clear contract responsibilities will fall into failure, because of the negative effect of that strategic movement. Nevertheless, outsourcing stands for less negative impact on customer support and satisfaction, than other both pillars. Actually, maintaining the efficiency of internal processes and investing in continuous learning, plus the establishment of enough skilled resources to interface with customers, can ensure a good support and customer satisfaction.

Telecom professionals recommend to recruit an insourced staff than an outsourced one, and confirm that employees improve the internal processes and their competencies by themselves better than outsourced ones. As a team manager, continuous improvement is one of the key deliverables, consequently, investing in employee capabilities is much secure for business continuity than an outsourced one, because of the employee engagement in the organization.

Comparing the three regions, there is no difference between them in terms of self-learning and improvement of outsourced and insourced staffs, also in the recruitment preferences. So, in that regard, Morocco and GCC stand in the same position. However, analyzing the existing status of outsourcing the core business, we find that Ooredoo –Qatar- is still believing in the employee and human capital, contradictory to Morocco (INWI & Morocco Telecom), where they have started to outsource their core competency gradually to reduce the OPEX, whether by a managed services/ maintenance contracts or to handle

very high level of expertise.

Dr. Ayad Alani, provided a suitable business agreement for any strategic move toward outsourcing, especially the core operation of a telecommunications provider. It is about “Revenue sharing” contract, to ensure the engagement and accountability of the third party into the company interest. In such cases, both firms will invest in the balanced score card pillars in order to continue generating revenue and operate efficiently.

Outsourcing the core competency, fully or partially, is a strategic decision which will certainly positively or negatively impact the organization market position in future. Therefore, the main drivers for such decision should be well analyzed, plus to prepare the organization processes and structure for a smooth function handover to the outsourcing party. As per Mr. Mohammad Abu Shawish, financial pressure should not be the only motif to outsource, but being fast to market and solid processes integration between the service provider and the outsourcing firm, along with a strong KPIs (Key Performance Indicators) and network availability measurement can smooth the outsourcing. He added that ensuring an End-to-End service support is the only way to satisfy and retain customers.

Outsourcing the organization core competency is a complex and hard decision, as it leads to a radical transformation, where multiple considerations should be captured. Internal restructuring and streamlining different processes should be performed before any outsourcing decision. In addition, human capital is a key element during any outsourcing movement, so on ground study and analysis should be conducted by field experts to avoid any disaster during the outsourcing phase. In business, each market is different and organizations differ from one to another, therefore, outsourcing analysis and decision cannot be duplicated in market.

CHAPTER 7: CONCLUSION

Through this research and analysis of different markets in MENA region, it becomes challenging to outsource the core competency of any telecommunications operator. Actually, an outsourcing decision has multiple dependencies to keep the business growth. Balanced Score Card approach reveals the other implications of the outsourcing. Therefore, the analysis of the three dimensions demonstrate how important they are in analyzing the organization performance, and providing an insight for strategies development.

A part from the financial data, the measurement of other aspects is hard to achieve out of BSC framework. Outsourcing decision driver is mainly to reduce the operational costs (as per the research study), which will be reflected immediately in a positive way in the financial documents (financial statement and income statement), however, it doesn't guarantee the future results. Consequently, implementing a Balanced Score Card approach will definitively support any outsourcing decision, in addition to the insights on the main areas to focus before and during the outsourcing lifecycle.

Telecommunications industry becomes more competitive, which increases the pressure on the organizations' executives to achieve the organization objectives in the short and long terms. Consequently, any strategic decision should be carefully analyzed and studied to avoid any failure.

Moving outsourced can be in different ways and agreements. Therefore, the service provider decision should be based on the real need and business requirements, to add value to the organization in the future. However, prior to any outsourcing implementation, the organization should be prepared internally, in terms of processes, structure, defined

responsibilities, and performing Sales and Marketing teams to probably benefit from this strategic step. In addition, the commitment and high engagement, through a strong contract between both parties may present a promising ground to achieve the defined results.

All aspects discussed above are interrelated to a certain extent, and thus BSC pillars are important and can have an effect on the organization performance. The research, apart from adding to the existing body of knowledge on the subject, provides more evidence of the effectiveness of Balanced Scorecard in the business.

Limitations

The research has some limitations in different sides. In fact, during the preparation of the study, some challenges have been faced to collect as much data as possible due to below factors:

- **Geographic limitation:** Based in Qatar, it was difficult to get abroad respondents. Especially, experts in the field.
- **Human limitation:** The research is founded in principal on comparison, so to find a senior professional working in a telecommunications operator, and managing both outsourced and insourced staffs presented a difficult task.
- **Financial limitation:** The published financial results don't correlate the outsourcing implementation to the operational costs, plus the confidentiality behind.
- **Spatial limitation:** Seven telecommunication operators surveyed.

Future Research Directions

The study presents a good base to expand the research to outsourcing impact on financial aspects in the medium and long terms. It can also be explored in other countries to create a reference in the MENA region to help telecommunication operators' executives, in any outsourcing strategic decision. Another perspective of future study, can be the possibility to define a suitable organization structure, to maximize the benefit of outsourcing. In addition, the research highlights different outsourcing models in the business, and provides a good opportunity to find out in the future, which model can fit the best a defined organization structure.

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APPENDICES

Appendix A: Research Ethics Review Exemption



Qatar University Institutional Review Board
QU-IRB

April 30, 2017

Mr. Chawqi Abdelfattah
MBA Student
College of Business and Economics
Qatar University
Tel.: 22623898
Email: ca1511712@qu.edu.qa

Dear Mr. Chawqi Abdelfattah,

Sub.: **Research Ethics Review Exemption / MBA Student Project**
Ref.: **Project titled, "Outsourcing Impact on Organization Performance-Telecommunications Operators in NA & GCC"**

We would like to inform you that your application along with the supporting documents provided for the above proposal, is reviewed and having met all the requirements, has been exempted from the full ethics review.

Please note that any changes/modification or additions to the original submitted protocol should be reported to the committee to seek approval prior to continuation.

Your Research Ethics Approval No. is: **QU-IRB 784-E/17**

Kindly refer to this number in all your future correspondence pertaining to this project.

Best wishes,

Dr. Khalid Al-Ali
Chairperson, QU-IRB



Appendix B: Questionnaire



I am Chawqi Abdel Fattah, working as Assistant Manager –Global Network Operations Center- in Ooredoo-Qatar-.

As part of my Applied Graduate Project, for my MBA –Business Analytics-College of Business and Economics, I would like your appreciated participation in below survey. It is about the assessment of “**Outsourcing Impact on Organizations-Telecom Operators- in GCC & North Africa-**“. Through the questionnaire, there are 28 questions which will help me in my analysis and submission of the thesis.

Thanks in advance for your time and dedication.

Questionnaire:

1- Please specify your educational background?

- Communications or Electrical Engineering
- Other Engineering field
- Business Administration
- Other, if possible please share

“.....”

2- How many professional years in Telecommunications Industry do you have?

- Less than 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 25 years
- More than 25 years

- 3- Since how many years are you working with your current employer?
- Less than 5 years
 - 6 to 10 years
 - 11 to 15 years
 - 16 to 25 years
 - More than 25 years
- 4- Which of the following best defines your employer?
- Operator
 - Vendor
- 5- Which region do you currently work in?
- GCC
 - North Africa
- 6- Which type of company do you work for?
- Local (Operating only in one country)
 - Multinational (Operating in multiple countries)
- 7- What's your function within your organization?
- Administrative (Finance, HR, ...)
 - Core Telecommunications business -Technology-, with no direct customer end contact
- 8- Do you manage employee and outsourced staff in the same team?
- Yes
 - No
- 9- Does your company have an innovation team?
- Yes
 - No
- 10- Does your company have a customer service or support team?
- Yes
 - No

11- Does your company have a process development team?

- Yes
- No

12- Does your company invest in continuous learning and innovation?

Never	Rarely	Sometimes	Often	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13- Does your company invest in internal processes development and improvement?

Never	Rarely	Sometimes	Often	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14- Does your company invest in customer support?

Never	Rarely	Sometimes	Often	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15- Please rank the innovation and continuous learning within your organization?

Very Poor	Poor	Fair	Good	Very Good
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16- Please rank internal processes efficiency within your organization?

Very Poor	Poor	Fair	Good	Very Good
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17- Please rank the customer support within your organization?

Very Poor	Poor	Fair	Good	Very Good
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18- Did your company already outsourced core business (Technology, Networks infrastructure and Human Skills)?

None	Very Few	Few	Many	Too many (Almost All)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19- In the future, does your company have a plan to start outsourcing core business (Technology, Networks infrastructure and Human skills)

Ready	Under Preparation	Under Management discussion	Maybe in the future	None
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20- Do you believe that outsourcing has a detrimental (*tending to cause harm/destructive*) impact on the efficiency of innovation and learning?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21- Do you believe that outsourcing has a negative impact on the efficiency of internal processes?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22- Do you believe that outsourcing has impacted badly the customer support and satisfaction?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23- Do your employees-Staff- try to improve the process & learn by themselves?

Never	Rarely	Sometimes	Often	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24- Do your outsourced staffs try to improve the process and learn by themselves?

Never	Rarely	Sometimes	Often	Always
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25- What are the outsourcing drivers within your organization?

- To handle sudden spikes of work
- Availability of skills
- Cut down operational (OPEX) and expenditure(CAPEX) costs
- Work requires high degree of domain expertise
- Other, please specify:

26- Excluding outsourcing compulsion (Being Forced) factors, do you recommend to recruit employees?

Never	Not Recommended	Neutral	Recommended	Highly recommended
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27- Excluding outsourcing compulsion (Being Forced) factors, do you recommend to recruit outsourced staffs?

Never	Not Recommended	Neutral	Recommended	Highly recommended
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28- Based on your answer of the previous question, please elaborate why?

.....
.....
.....
.....
.....
.....
.....
.....

Thanks for your time and dedication. Much appreciated.

If you are interested to receive a copy of the final report, please share your mail ID:

.....

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