



Effect of Heterogeneity and Innovation on Decision Making – “A study of a telecom service provider in UAE”

تأثير على عدم التجانس و الابتكار في اتخاذ القرار – دراسة لمزود خدمات الاتصالات في الإمارات العربية المتحدة

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Abstract

In this thesis, the effect of heterogeneity and its impact on innovation market in UAE is explored. As market mature across the globe, every telecom operator has to increase their value and reduce their commercial costs. The only way to do this is by rethinking their approaches and to develop new ways in order to keep their customers satisfied. Furthermore, different aspects of diversity that service providers should take care of is discussed. Starting with national culture where it is divided into four different categories. These include Hofstede's four cultural dimensions, Power distance index (PDI), Uncertainty avoidance index (UAI) and Individualism.

The second diversity factor that must be taken into account is the age difference that exists between the customers of the service providers. The third factor that is discussed is the gender composition. The gender compositions also has an impact on what a customer wants from the service provider. For instant business customers want business related services. Some of the female customers would like to have more services related to fashion or makeup. Every customer has different choices and the service provider must make sure that its customer is properly supplied with the services that he/she wants on a daily basis with the minimum cost so that he/she can purchase it without facing financial problems.

The fourth factor that has an impact on the service provider is innovation. Based on each factors that have been discussed, it is the job of the service provider to categorize its customers based on factors such as age, gender and culture. Unless proper categorization is not done, there will be no proper room for service innovation. Furthermore, the different generations of innovations are described which are: first generation innovation, second generation innovation, third generation innovation, fourth generation innovation and the last one which is fifth generation innovation.

After a brief description of the different impacts of customer diversity, then the research objective which is firstly how decision making plays a critical role in projects along with its different challenges is analyzed. Secondly, to investigate how diversity can enhance or hinder decision making is discussed followed by how diversity influences different innovation ideas that the service provider can provide is investigated. The section after this shows the change in the

consumption of sms, phone calls and internet services that have increased. This is done by using graph from the telecommunication sector provider. Some of the possible reasons behind the increase in the subscription is also analyzed and evaluated. Three types of analysis methods have been used which are based on demographic profile, reliability and gap analysis have been made. Furthermore, in the end new ways of encouraging people to use the services have been discussed which can benefit the service provider if they are followed.

Analysis was conducted not only on the diverse workforce that worked for the organization but also on the customers. Through the analysis, it was found that based on the questionnaire response of 33 people, how long the people have been working for the organization. By making use of a pie chart, the number of people working in the firm from 5 years to above 21 years was determined. Furthermore, how effective each of these members were also taken into account by how many projects they have started. After that, how they were able to motivate each other based on their team work was also determined along with ways project manager resorts to different styles rather than the only means of approach in order to tackle an obstacle. Furthermore, proper analysis of the tactics that the project manager adopted was taken into account. Based on this survey that was conducted, one could determine if the employees did learn anything new or not. The last survey in the employee section that was conducted shows the project complexity that the employees were working on. It was then followed by surveys based on the customer's background and reliable the test was in order to take into consideration.

Furthermore, different ways of approach that the organization could use in order to boost their innovation ideas was also taken into consideration. Some of these included new digital channels, mobile commerce, low-cost channels, direct mixed points of sale, free lancers and street sales. In the conclusion section, the importance of diversity workforce is highlighted followed by the advantage an organization can have if their workforce is put under a capable leadership. Not only will they provide different solutions from which the leader can choose from but they will also provide innovative ideas which the leader can take into account and develop new products to satisfy their customers.

In the last part of the thesis, some recommendations are provided such as more focus should be placed in the development of leadership, how employees should be rewarded for their ideas to encourage them more etc.

Abstract (Arabic)

نبذة مختصرة

في هذه الاطروحة، تم استكشاف تأثير على عدم التجانس و تأثير على الابتكار في سوق الإمارات العربية المتحدة كسوق تتضج في انحاء العالم، يجب على كل مشغل الإتصالاتالقيام بزيادة قيمهم و تقليل تكاليفهم التجارية، فتكون الوكيل الوحيد للقيام به وذلك اعادة تفكير نهجاتهم وتطوير وسائل جديدة بما يتعلق بحفظ على عملائهم مرضيين، علاوة على ذلك، يجب اجراء المناقشة في المعايير المختلفة المتنوعة يعاني بها مزودو الخدمات، مبينا بالثقافة الوطنية حيث يتم تقسيمها الى اربعة فئات مختلفة، وانها تشمل اربع اتجاهات ثقافية لهوفستيد، و مؤشر القوة المسافة (PDI) ومؤشرتجنبعدماليقين (UAI) و الفردانية. يجب اعتبار العامل المتنوع الثاني فرق العمر الذي يوجد بين العملاء لمزود الخدمات. و يكون العامل الثالث اجرية المناقشة فيه وذلك هو تكوين الجنسين. ويكون لتكوين الجنسين تأثير ايضا على ما يريد العميل من مورد الخدمات. للاعمال السريعة يصعد العملاء الاعمال بما يتعلق بالخدمات، يود بعض العملاء الانثى ان يحصل على خدمات كثيرة متعلقة بالأزياء أو الماكياج، ولكل زيون اختيار مختلف و يجب تأكد مورد الخدمات من انه تم توريد الخدمات الى العميل بشكل صحيح وذلك انه/ انها يريد على اساس يومي بتكلفة قليلة، لذا يمكن له/ لها شرائها بدون توجه الى المشاكل المالية. للعامل الرابع تأثير على مورد الخدمات الذي هو الابتكار، على اساس كل من العوامل التي تم المناقشة فيها، و يكون ذلك مهنة مورد الخدمات لتصنيف عملائها على اساس العوامل مثل العمر و الجنس و الثقافة، وإلا لم يتم التصنيف بشكل صحيح، لن يكن هناك اية غرفة صحيحة لابتكار الخدمات و علاوة على ذلك، تم تفصيل عن الاجيال المختلفة للابتكار كما هي ابتكار الجيل الاول و ابتكار الجيل الثاني و ابتكار الجيل الثالث و ابتكار الجيل الرابع و الاخير ابتكار الجيل الخامس.

بعد نبذة مختصرة عن تفاصيل التأثيرات المختلفة للعملاء المتنوعين، فيكون غرض البحث اوليا كيف يعمل اتخاذ قرار دورا هاما في المشاريع وذلك مع تهديداتها المختلفة المحللة. ثانيا، تحقيق من كيفية امكان التنوع لتحسين او تعيق اتخاذ قرار تم مناقشته متابعة بكيفية تأثير التنوع على افكار الابتكار المخلفة التي يمكن مورد الخدمة توفيرها متحققة، يكون القسم بعد هذا يعرض التغيير في استهلاك رسالة نصية و مكالمات الهاتف و خدمات انترنت التي تم زيادتها، تم اعدادها بواسطة استخدام رسم بياني من مورد قطاع الإتصالات، وتم تحليل و تقييم بعض اسباب محتملة وراء زيادة في الاكتتاب. يتم استخدام ثلاثة انواع من نماذج التحليل وذلك على اساس اللوحة الديموغرافية والموثوقية وتحليل الفجوات المبذولة. علاوة على ذلك، في النهاية، تم المناقشة عن وسائل جديدة لتشجيع الناس لاستخدام الخدمات وبذلك يمكن لمزود الخدمات الحصول على الفوائد اذا قاموا بمتابعتها.

ما تم انعقاد التحليل فقط على قوة العمال المتنوعة التي يعمل للمنظمة ولكن للعملاء ايضا، ولكن التحليل تم العثور عليها على اساس رد الإستبيان من 33 شخص، كم مدة كان الناس يعملون للمنظمة، باعداد استخدام الرسم البياني و عدد من الناس يعملون في الشركة منذ 5 سنوات وما فوقها حتى تم تحديدها الى 21 سنة. علاوة على ذلك، يعتبر ايضا كيف يتأثر كل من هذه الاعضاء بطريق كم مشاريع تم بدأها من قبلهم و بعد ذلك، كيف كانوا قادرين على تحفيز بعضهم الى البعض على اساس العمل الجماعي تم تحديدها ايضا مع طرق تقرير مدير المشاريع الى انماط مختلفة على الرغم من وسائل الإقتراب فقط بما يتعلق بمعالجة عقبة. علاوة على ذلك، يعتبر التحليل الصحيح لتكتيكات التي يعتمدها مدير المشاريع، على اساس من هذه الدراسة الإستقصائية المنعقدة، يمكن للمرء تحديدها إذا كان فعالا لموظف تعلم أي شيء جديد أم لا. وتعرض الدراسة الاستقصائية الأخيرة المنعقدة في قسم الموظفين تعقيد المشروع حيث كان الموظفون يعملون، تم متابعة بالدراسات الإستقصائية على اساس خلفية العملاء و الموثوقية حيث تم اعتبارها.

علاوة على ذلك، تم اعتبار وسائل مختلفة للاقتراب يمكن للمنظمة استخدام بما يتعلق بتعزيز افكار ابتكارهم، يشمل بعض هذه القنوات الرقمية لجديدة، و التجارة عبر الهاتف المتحركو قنوات منخفضة التكلفة و النقاط الثابتة المباشرة للبيع و البائعين المستقلين ومبيعات الشارع. في قسم الختام، قد سلط الضوء على اهتمام قوة العمالة المتنوعة متابعة لميزة بانه يمكن لمنظمة اذا كانت قوة عمالهم تحت قيادة قادرة. الا اذا قامو بتوفير الحلول المختلفة من التي يمكن للقائد الاختيار و لكن يقوم بتوفير افكار الإبتكار التي يمكن للقائد اعتبار و تطوير منتجات جديدة وفقا لمرضية عملائهم.

في الجزء الأخير من هذا الأطروحة، تم توفير بعض توجيهات وذلك مثل ما يتركز الى تطوير و تقدم القادة، كيف ينبغي المكافأة لافكارهم لتعزيزهم بشكل كثير وغيرها، في النهاية يتم متابعة بالاسباب المختلفة التي يمكن استخدامها.

Chapter 1

2.1 Introduction

In today's world, globalization has played a major role in the way people think and behave. In order to achieve successful outcomes, it is very important that people adopt to different strategies, use proper techniques of analysis in order to motivate consumers to buy their products and also respond to the competition that arises in the market in order not to be left behind the competitors. In this thesis, the impacts of heterogeneity on the decisions people make is investigated. Four aspects of heterogeneity are investigated; national culture, age, gender, and project roles. When it comes to project role, it is very important for someone like the manager to choose a team of different culture, age and gender. This gives him/her a group mixed of different culture people which can prove to be effective when it comes to tackling problems in a region of multi-cultural people.

Below are four factors that influence heterogeneity. It is very important to know what each means before the whole idea of innovation and factors that are needed to consider in order to win the customers to the service provider's side.

Chapter 2

Literature Review

3.1 National Culture:

With the growth of globalization, cultural sensitivity has become a very important factor in understanding global complexities that arises in business in host countries that have been expanding (Sanyal, 2001). As one knows, every nation has a culture of its own (Cateora, et al., 2011; Jain, 2001). Verhelst (1990, p. 17) has defined culture as “every aspect of life: knowhow, technical knowledge, customs of food and dress, mentality values, language, symbols, socio-political and economic behavior, indigenous methods of making decisions and exercising power, methods of production and economic relations, and so on”. On the other hand, Dutch professor Hofstede (2001) thinks of culture as “software of mind” and argues that culture is a pathway for people on how to think and behave; tools with which problems can be solved.

Cultural sensitivity calls for managers to use their abilities to understand and analyze the viewpoint of the people living in different countries. More like to put themselves in the shoes of those people for better understanding of how they think and work. By doing this, international managers can highly benefit from these by understanding how the people work, dimensions and culture and by analyzing these, they can further know how these factors affect work and organization process. (Joinson, 1998). This cultural awareness helps managers to employ different policies in order to plan, organize and develop control in different organizations (Francesco and Gold, 2005; Hofstede, 1980; Joinson, 1998; Khatri, 2009). Most of the time, managers have failed to looked in the cultural aspect of a country and failed to take into consideration of cultural factors which has resulted in several blunders in worldwide operations as reported in many publications (e.g. Black and Mendenhall, 1990; Joinson, 1998; Podrug, 2011; Ricks, 1983; Wysocki 1990).

It has been found that societies create their own cultures and organizational systems that are based on that culture (Ralston, et al., 1993). In this way, it is very essential to study the national

cultures in order to understand the managerial values and behaviors in international research (Hofstede, 1980, 1991; Podrug, 2011).

By using Hofstede's (1984) cultural dimensions and Sproles and Kendall's (1986) Customer Style Inventory, we can determine how culture influences the consumer decision making style. Culture has been defined as set of values, artifacts and ideas that are used to help individuals in communication, interpretation and evaluation as part of the society (Engel, Blackwell & Miniard, 1993). Hofstede (1991) defined culture as a collection of programming of the mind that distinguished people of one group from one another. Cultured is something that is learned, shared and agreed on by the members of the society. It is very important for a society to agree on "culture" so as to provide solutions to problems that can occur (Terpstra & David, 1991).

Despite globalization, it has been found that people have their own taste and habits that are usually rooted to a culture that they come from (Zhu, Quan & Xuan, 2006). Furthermore, Usunier (1996) found that there is no empirical to suggest a pattern in the taste or appearance in types of goods people want. Culture is found to be dynamic and it has also be found that it is usually influenced by the changes that occur in the environment such as in social institutions (legal, commercial, political, etc.) and in the value of the individuals himself/herself. Cultural priorities in the society can help create social and economic rewards to which people should make themselves adapt to the changes that occur in institutions where they spend most of their time in such as schools, families and businesses etc (Smith & Schwartz, 1997) in order to function properly and effectively. People who belong to a certain culture usually face conflicts when it comes to their own value structure and the one that exists in the national culture priorities. Therefore, the negative values and attitudes towards cultural priorities should be discouraged (Schwartz, 1994).

Some marketers have been convinced that it is the value of the people that plays a major part to their personal development, to their actions as part of citizens and to the way they act as consumers (Lowe & Corkindale, 1998). Furthermore, it has been found that a country's culture plays a significant role in the systemic differences that exists in the behavior of the customer

(Lynn, Zinkhan, & Harris, 1993). It has been found that culture also plays a significant part in the needs of customer (Roth, 1995), however it does that imply that culture has to be specific to the country. It can be summed up in terms of different levels, and national levels can be one of them (Dawar & Parker, 1994).

3.1.1 Hofstede's Four Cultural Dimensions

Hofstede (1984) categorized national culture into for different cultural dimensions: Power Distance Index [PDI], Masculinity Index [MAS], Uncertainty Avoidance Index [UAI], Individualism Index [IDV]. These dimensions have been used by many marketing researchers to analyze and compared how culture works differently in different countries.

3.1.2 Power Distance Index [PDI]

Power distance refers to how a less powerful person accepts inequality in power and considers this to be normal. It has been found that equality exists in almost every country but the extent of it will vary from culture to culture (Hofstede, 1984, p. 390). Furthermore, it has been found that unequal distribution of power among elements of society is more common in large power distance cultures. Elements of society can referred to as a group to which an individual belongs to, for instance school, community, workplace, etc. Furthermore, it has been found that countries that have the highest PDI put up with inequality more often and have more need for power, status, wealth and prestige (Hofstede, 1991).

In China for instance, a greater power distance country, it is not very difficult to come face to face with different types of formalities: at school, teachers call students by their last names; at workplace, subordinates accept the task that is assigned to them by their superiors without any objection; at home, the youngsters are to respect and obey their elders.

3.1.3 Uncertainty Avoidance Index [UAI]

UAI is used to measure the degree of uncertainty that exists. Cultures that have higher degree of UAI are found to be less tolerant of ambiguity and unexpected situations, which is why their society are made of strict rules when it comes to social behavior. However when things do not

turn up the way they should, it has been found that it will result in frustration and intolerance. On the other hand, it has been found that societies with low AUI are more willing to accept risks.

3.1.4 Individualism [IDV]: This measures the degree in which an individualism looks into decisions based on his perspective rather than other people's perspective (Hofstede, 1991). In individualistic country, individuals are more concerned about their own opinion rather than the opinion of other people, they value time they spend on their personal activities, they even adjust their time so that they will be comfortable with their life style, they even challenge themselves in order to get achieve a personal goal. On the other hand, collectivistic culture members feel that have a responsibility over each other and that they should take care of each other.

Two countries that fall under collectivistic cultures are Brazil and Japan whilst Americans are said to be individualistic (Hofstede, 1991). In USA for instance, young people leave their parent's home without any obligations that their parents have to be looked after by them later on.

Masculinity [MAS]: This is used to measure how clearly a culture has its social roles handed out among its members. Most importantly, masculine societies value more 'male characteristics' like more competitive, status and success compared to feminine societies that emphasizes more into taking care of the weak, equality and preserving their surrounding (Hofstede, 1991).

3.2 The Aging Population:

In today's world, older adults are usually faced with complex decisions, usually when it comes to financial and medical decisions. This is because both financial and medical can carry huge risks and usually it is the matter of life and death when dealing with these two. However the questions is: How different are the decision that older adults make as compared to younger adults?

Based on a research that was conducted, it has been found that majority of older people's decisions are based on the experiences that they have gained and the emotional phases that they have passed through. For instance maintaining and manipulating information in working memory (MacPherson, Phillips & Della Sala, 2002) and also dealing with different emotional aspects of a decision (Bechara, Damasio & Lee, 1999; Blanchard-Fields, Jahnke, & Camp, 1995).

As emotional and cognition usually work together when a person has to make decisions, emotion usually gets the better of cognition under certain situations. Emotional reactions occur more rapidly than the response based on cognition (LeDoux, 1993; Zajonc, 1990) and in this way it can play a part in cognitive assessment such as the level of risk (Finucane, Alhakami, Slovic, & Johnson, 2000). For instance, people usually overweight small probabilities or make mistakes when it comes to negative relationship between risks and benefits that are more likely to be positively correlated (Finucane et al., 2000; Loewenstein, Weber, Hsee, & Welch, 2001).

Furthermore, even background mood and time interval that is taken between decision and outcome also play a major role in the risk taking behaviors (Loewenstein et al., 2001).

Through analysis of the relationship between ageing and the decision that people make, it can be found how important decisions are under financial uncertainty and how important it is when it comes to social policy (Filer, Kenny, & Morton, 1993; Neguarten, 1974). Furthermore, as it has been found that wealth accumulates over a period of time, in this way, adults tend to have more spending power than young people (Davies & Shorrocks, 2000; Jappelli & Pistaferri, 2000). Another situation that can be considered is when it comes to voting, older people tend to have more responsibility when it comes to serving their country and in this way, they tend to vote most of the time than young people and in this way, they are more likely to have high influence in the politics (Glen & Grimes, 1986; Strate, Parrish, Elder, & Ford, 1989). This can be seen in the Brexit vote. Across the U.K, polls showed that only 19% of the people between the age of 18 and 24 supported a British exit-the Brexit- from the E.U. On the other hand, among the pensioners who came of age before the E.U. was created, 59% of them wanted their country to leave the E.U. And when all of the 33 million ballots were counted, the position favoured by

most pensioners won by a huge margin of 1.3 million votes. This shows that older people have more influence when it comes to politics.

Experiences in the past can affect the decisions people make in the long run (Julison, Karlsson and Garling, 2005). It has also been found that when a decision gives positive outcome, people tend to follow the same decision if the same situation arises. On the other hand, people are less likely to do the same mistake that they did in the past (Sagi & Friedland, 2007). From this to a certain extent it can be agreed that future decisions that are made from the past are not always the best decisions. When it comes to finance, it has been found that the most successful people don't make investments based on their past outcomes but they analyze their choices and care less about their past decisions. However, this approach might be different with what one may expect (Juliussen et al, 2005).

Apart from past experiences, there are other factors that influence which have an impact on the decision an individual makes. One of them is cognitive biases. Cognitive biases are thinking procedures which relies on observing and generalizing which can lead to memory errors, judgments that are not right and faulty logics (Evans, Barston, & Pollard, 1983; West, Toplak, & Stanovich, 2008). When it comes to decision making, cognitive biases influence people by making them rely on outcomes based on previous observations and knowledge that was provided to them while they don't rely on information and observations that seem to be uncertain. This influence can sometimes lead to poor decisions in which the cognitive biases help individuals to reach the proper decision with assistance of certain rules (Shah & Oppenheimer, 2008).

Through research, it has been found that age, socioeconomic status (SES), and cognitive abilities also play a role in influencing decision (de Vruin, Parker, & Fischhoff, 2007; Finucane, Mertz, Slovic, & Schmidt, 2005). It has also been found that older people seem to be more confident when it comes to making decisions which helps them to make plan their strategy (de Bruin et al., 2007). Furthermore, it is believed that older people find prefer less number of

choices in order to reach a decision as compared to younger people (Reed, Mikels, & Simon, 2008).

Looking at this from the psychophysiological perspective, it has been observed that ageing on the brain causes more cognition and have widespread aetiologies (Cabeza et al., 2005). This in turn has great effects when it comes to physiological, molecular, morphological and how well it functions. The cognitive effect that a person usually first thinks of is that with ageing, an individual tends to be more forgetful which can result in memory losses (Small, Stern, Tang, & Mayeux, 1999).

Through researches, it has also been noticed that old adults have different goals that when compared with young adults. This is usually due to the amount of time left for them which causes them to have different goals and in this way, time plays an important role in human motivation (Cartensen, 2006; Carstensen, Isaacowitz, & Charles, 1999). Decisions have also been found to be influenced by emotions (Coricelli, Dolan, & Sirigu, 2007) which can also influence the decision an individual makes. Ageing also plays a role in personalities of people. This can result in some personality traits in a human being for instance – being cautious, seeking sensation – which will also play a role the decisions people make (Borghans et al., 2008),.

3.3 Gender Composition

Gender differences and how they impact on the outcomes of the economy have increasingly attracted attention both in the media section and also in the economic literature. It has been found that both men and woman have systemic differences when it comes to purchasing a product. This is because of the difference in the gender. Corson and Gneezy (2009, p.1) while analyzing the gender differences summarized their findings as women are more risk averse than men are. They believed that women preferences are usually situational specific than when compared to men. Furthermore, they even realized that when it comes to competitions, women are usually more competitive than men.

Research on gender differences are usually done at individual level, despite of important decisions made by groups or teams. Business and boards, committees and research groups are some of the examples of group decisions that happen in the real world. Furthermore, gender difference in risk attitudes, social preferences and the preferences that take place in competitive environment also play an important role in order to understand the differences that happen in both social and economic outcomes. For example, in a study of a group of people that worked in USA firms in the year 1992-1997, it was the found that only 2.5% of women were amongst the highest paid in the firm and the value that they earned were 45% less than what men earned doing the same job (Bertrand and Hallock, 2001).

However, woman take uncertainty, doubts and dynamism into more consideration when they have to make a decision. Money and time hold a huge value when it comes to women. They are usually more interested in the consequences that may arise from their decision than concerned about how their decision will affect them or other people. Emotions play a major role in the decision making of women. On the other hand, men concentrate more on the analysis and the information assigned to them in order to reach their decision in order to reach their goals. Men are usually more motivated during the process and they also feel more pressure during the time that they are working on a project.

The general opinion when it comes to women is that, women are most likely to choose investments that are less risky to invest in the market. In most of the academic literature, it has been found that women strongly oppose indulging in work that consists of risks than men (Jianakopulos and Bernasek, 1998, and Sunden & Surette, 1998). It has also been found that women trade less aggressively than men which suggests that women are less confident than men (Barber & Odean, 2001). The main reason that women are less overconfident is that women are usually more likely to avoid financial issues and in this way, they are more likely to postpone their financial planning (Graham, Stendardi, Myers and Graham 2002: 18). Furthermore, it can be said that the more a person trades, the more he will be confident with the financial decisions that he faces in day to day life (Barber and Odean 2001).

Every aspect and phenomenon of psychology is not complete without conducting the differential behavior with respect to gender, race and nationality about other variables such as environment, education and other factors that have a great impact on decision making process and allow individuals to develop their own unique characteristics.

The truth is that decisions are heavily influenced by the beliefs a specific individual holds and the characteristics that create and the behavioral psychological difference between the sexes.

Even though society is growing towards equalities in many aspects such as social and labor equality between men and women, it can't be denied that difference still exist. it is crucial to continue to examine -from a psychological angle whether there are sex differences in the importance that people allocate to factors that determine the decision process.

Up to date, the conclusions and observations of research are very ambiguous to some extent merely because of the fact that different researches lead to different conclusions based on the environments in which they are carried.

It seems that women are more sensitive to their environment; and try to collect more facts and information not to mention, invest more time in the decision making process than men. (Gill, Stockard, Johnson, & Williams, 1987). Men have generally been found to be more controlling, more dominant, assertive, objective, and realistic (Wood, 1990).

However, these discrepancies in decision making with respect to gender have been interpreted as the result of the incidence of sex-related stereotypes that are conducted from one generation to the other in the form of cultural and behavioral norms and values and expectations to which most people feel confined.

Things like education also add to the list of factors and play a part in maintain some of the difference that go into the decision making process. (Bussey & Bandura, 1999). Therefore, even

though up to date, the research and observations seem to be limited when it comes to considering all the variables that go into an individual's decision, it is only relevant to continue to investigate these differences and find out how and why they exist.

When it comes to age, a lot of the research studies within the naturalistic approach have been carried out on adults and comparatively, fewer have been carried out with youths and people who have retired. It is necessary to analyze all these three age groups to get a clearer idea of what contributes to decision making. Just like with gender, researchers debate on what process should be used to assess the processes used by youths, adults, and retired persons. Some authors hold the notion that there are differences when it comes to age (Gardner, Scherer, & Tester, 1989; Dror, Katona, & Mungur, 1998) and yet others disagree (Chen & Sun, 2003; Moshman, 1993). Despite this, the variable age should be considered, especially when attempting to investigate from a realistic angle, because it cannot be ignored subjects' experience and competence, which are normally acquired with age are also pivotal factors in the decision making process.

Craik and Salthouse (1992), for example, hold this interpretation in a study on information processing in older people, and Spaniol and Bayen (2005) have found that judgments are more calm and thoughtful in older age groups such as retired people. The reason could be probably because of their difficulties with the working memory.

Currently, there is an engraved notion that differences are a product of the norms established in a given society (Tannen, 1990), social status, and decorum imposed on society and associated with gender (Henley & Kramarae, 1991; West & Zimmerman, 1991). However, from the perspective of social psychology, the differences could be considered from the perspective of determinism among cognitive, behavioral, and environmental factors.

In the past, studies regarding the impact of gender, race and other factors have focused on two fields which are the role of ethics in decisions taken and perceptions about judgments that

require ethics (Vignettes). Collins (2000) published a study which aptly and concisely describes ethical research in the Journal of Business Ethics. In this research, sensitivities to issues that involve ethical dimensions with respect sex and race were described. The literature reviewed in this study also lay a lot of emphasis on research studies with students who were studying business and managers.

With regards to unethical behaviors, one of the methods that the scientists employed in their research was to analyze the situation is to provide a description of a unethical or “gray” behaviors and ask the test subjects to state the degree to which they agree with such behavior. Different scientists carry out different research which differs based on the kind of behaviors that are being studied for e.g. academic or business behaviors. Another thing is the type of respondent, i.e., student, business people. Ameen, Guffey and McMillan (1996) found accounting students who were female to be more staunch and repulsive of unethical behaviors than their male counterparts.

Prasad, Marlow and Hattwick (1998) showed that gender differences played a major part among business undergraduates when it came to behavior in a fair and unbiased society.

In alignment with that, Smith and Oakley (1997) also found concluded that gender differences In broader social concerns were not a minor issue. However, they observed very little difference when it came to business rules.

On the other hand, McNichols and Zimmerman (1985) found no role of sex differences in studying undergraduate student responses to personal, social, and business assessment of ethical issues in a study conducted about ten years earlier.

However, when Mc Cuddy and Peery (1996) conducted their study by asking management students to rate ethical actions in academic situations and found differences between genders not to worthy of mention as they were very insignificant.

Harris (1989) found no differences that were major in the behavior and reactions of marketing employees to business behaviors with regards to gender.

When it comes to business aspects in insurance related fields, Serwinek (1992) questioned insurance agents about several decision making events in business and found that gender played a rather major role- an observation in line with that of Ekin, Serap and Tezolmez (1999) who also discovered that there are huge margins when it came to unethical business practices in men and women.

Another such study on ethical difference was conducted by Luthar et al. (1997). His study's main focus was on the differences in ethical positions between freshmen and seniors in addition to men and women. It extended to include a separate category on those who had studied ethics and those who hadn't. The main observation in this study was that "females had a different ethical orientation than males" and that taking up educational courses on ethics etc. did lead to a change in the decision making process of both genders. Several business students were again surveyed in a study conducted by Ruegger and King (1992) where they were questioned about business behaviors. This study also seemed to find that gender differences played a major part.

Reiss and Mitra (1998) also questioned business students about business situations. Their observation seemed to be that females have a higher tendency to make decisions with respect to ethical standards rather than men. This supported all the earlier surveys on the same issue led by scientists such as by Galbraith and Stephenson (1993) and Poorsoltan et al. (1991). However, Davis and Welton (1991), asked several accounting students about mixed behaviors. However, they didn't find any significant influence of gender differences in the responses from the students.

Khazanchi (1995) questioned business information technology students about ethical actions. They seemed to suggest that women had a better knack of recognizing and understanding unethical behavior than men. Mason and Mudrack (1996) conducted a study on undergraduate

business students about ethical questions and found that gender differences were only found in employed students but not the unemployed group.

Dawson (1995) and Hoffman (1998) came up with a suggestion that the mixed result of any research is due to the fact that the ethical attitudes and behavior are specific to the situation and the environment of each individual. Inconsistency is inevitable. They suggest that rather than a questionnaire, vignettes should be used to probe moral reasoning in addition to making behavioral predictions. They propose to using 6 vignettes that aptly describe situations that might arise in any given profession such as sales or accounting

According to Hunt and Vitell model, there are cultural, professional, organizational and individual factors that influence perceptions and judgments. A cross-cultural sample of people in any given field for e.g. accounting would allow the study to be conducted on one specific factor. Students would have little professional experience but an accounting professional orientation. Conclusions from studies carried out from all over the world would give a deeper insight.

3.4 Innovation

Of all the challenges that exists in today's world, the management of technological innovation (MTI) is one of the most difficult and most demanding one. If done properly, it can result in profits, increase competitiveness in the market to exceed the limit of other companies, become one of places where people want to work in and also enable the firm to attract more customer and at the same time retain their old customers. However, if it is not carried out properly, it will not only affect the reputation of the firm but will also result in customer loss, loss of money and workers that are employed. On the other hand, if one firm doesn't innovate, other firms will and in this way other firms competitiveness can put one's firm into a risky position such that they will lose their customers and can make them go out of business (Dodgson et al.,2008:1). In today's world, the service sector has become more of an innovation intensive and two of the significant sectors are that of telecommunications and computer services (Howells, 2000: 4).

Telecommunication belongs to a group of network service that are dependent mostly on

information technology networks (Miozzo and Soete, 2001: 4). The development of information technology (IT) has played a major role in the improvements of complexity, quality of service that the providers provide and the precision (Tether and Metcalfe, 2003:2). Tinnesand (1973) defined innovation after reviewing 188 publications. Based on the research that he conducted, he came to a conclusion that the proper definition of innovation were as follows:

- Introduction of new idea: was 36%
- A new idea: was 16%
- Introduction of an invention: was 14%
- An idea different from existing ideas: was 14%
- Prevailing behavior: was 11%
- An invention: was 9%

However, authors such as Urabe (1988) argued that the term innovation refers to new ideas which can be implemented to form a new product, process or service which can help the growth of economy of a nation and at the same time increase employment as well.

According to Kim and Mauborgne (2007), “innovation is the original creativity that results in the advancement or progress of a product, process or service”. Both Kim and Mauborgne developed a strategy which highlights how it is essential for a firm to add high value services in order to retain their customers as their loyalty to the service providers. Harrington (1995) believes that project managers need to increase their product lines along with their customer services in order to make the customers happy. He also believes that it is through innovation that problems will be dealt with and in this way, it will help when it comes to upgrading efficiency. Porter and Stern (2001) stated that innovation is a process in which ideas are transformed into new products, processes and services and in order to accomplish this, it requires more than just science and technology. Cragg and Alexander (2007) on the other hand believe that innovation involves tending to the requirements of the client.

Kuhn (1985) believes that “innovation comes from creative ideas that resulted from nothing”, while on the other hand, Badway (1988) believes that innovation allows new ideas to be built into old ones and in this way find new uses for them. Marquis (1969) states that the term innovation can be referred to different concepts that can be built into new systems or services. Damanpour (1991) believes that the term innovation refers to “Adoption of an idea or behavior, whether a system, policy, program, device, process, product or service, that is new to the adopting organization”.

Rothwell (1994) claims that innovation has developed throughout five phases:

- **First generation innovation (1G) – technology push:** This refers to the era which initiated the American Industrial Revolution, where innovation helped to establish technologically ways of factory production.
- **Second generation innovation (2G) – need pull:** This was the era where the needs of the customers were considered and it was more of customer oriented market. it was during this era where the clients requirements were defined and dealt with using technology.
- **Third generation innovation (3G) – coupling model:** In this innovation era, both push and pull were merged together because of the situation of the global market which required more and more of concepts to be produced. R&D established during this era helped to obtain feedbacks from customer in order to enhance their products and also for marketing purposes.
- **Fourth generation innovation (4G) – integrated model:** During this innovation era, innovation was dealt with in a strategic way that coordinated with R&D, marketing with suppliers from all over the world.
- **Fifth generation innovation (5G) – systems integration and networking model (SIN):** In this era, factors such as high quality products together with good speed and no lags were considered.

Furthermore, it is argued that organizational culture can either hide or encourage innovation (Glor, 1997; Tushman and O'Reilly, 1989; Pinchot and Pinchot, 1996; Tesluk et al., 1997). Schein (1985) and Martin (1987) have addressed five determinants of organizational culture that can have an effect in encouraging or hiding innovation.

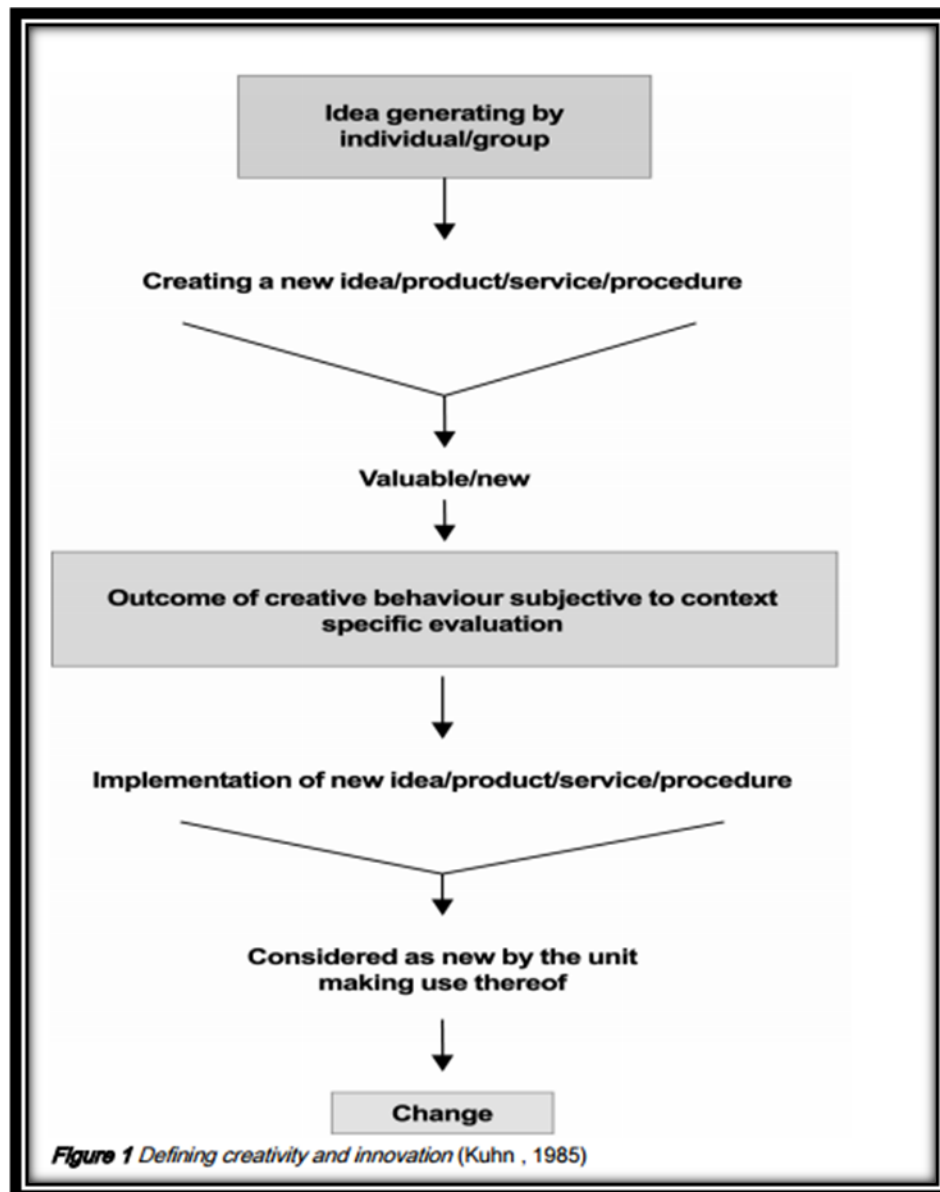


Figure 1: Defining creativity and innovation (Kuhn, 1985)

Copper (1998) argued that it is very important to select the right innovation strategy in order to stand above the products or services in the market both in terms of reliability and performance. Copper believed that a dominating innovative strategy contains:

- Selecting the product goals and target markets.
- Sharing the value of the new product and how it will lead to achieving the objectives that are required.
- Selecting the main scope and the areas of strategy that are of great importance to meet the organization goals.

Christensen (1997) highlights the importance of market/technology in order to achieve the resources that are need for innovation to take place. Initiatives must be first given priority to market positions that the technology does not support. Christensen also points out that products from discontinuous technologies that have been stopped could also come to use in the future.

It is of great importance to the organization to conduct proper research on areas where they plan to introduce new products in the market. If this task is not done properly, it can cause heavy loss and can also cause the organization to go bankrupt. Based on the information that is analyzed, an organization can know what products have a higher rate of running in that particular area. For instance, if the organization finds out that the people aren't that well off in terms of financial status, they should make sure that the services of products that they supply to that particular city should be within the reach of the financial state of the people living in that city. However, if proper research hasn't been conducted and product or service that has more cost than the normal people earning in that city, the products or services won't be sold and hence the product will be untouched in the stores and since the organization is neither selling nor making profit, the organization will definitely face financial problems which will affect them overall.

3.5 Aim of Study:

The aim of this research is to investigate how different heterogeneity factors play a role in a service provider's decision making when it comes to innovation in projects. Furthermore, the different methods of approaches that a service provider uses in order to achieve innovation will also be assessed in this research. By looking into projects that the firm launches, it will be observed how one service provider competes with other service providers. By making use of surveys and reports, the percentage of success and failures of these projects will be looked into and how they encourage people to use their services will be also observed. Different methods of approach that a service provider uses to retain their customers will be analyzed along with their success rate and based on these, the rate of success of the service provider based on their innovation decision making skills will be observed.

3.6 Research Objectives:

Telecommunication sector has been established long before United Arab Emirates (UAE) was even formed or in other words, become united. Three small companies joined together to form a union and become the core of the telecommunication sector in the main cities at that time which were Abu Dhabi, Dubai and Sharjah. During the independence period around 1971, local telephone service started existing but its reach was limited to local calls only and not to county-wide links. By the end of 1971, only 90000 land lines existed in the country. In the mid of 1976, the local phone companies in UAE were replaced by a multimillion centralized telecom company referred to as Emirates Telecommunication Company, Etisalat. During this time, 60% of the company belonged the government while 40% of it belonged to private investors.

During the years, Etisalat has made a lot of establishments along with establishing its name as the leading telecom organization in the UAE. Not only this, it has also progressed to such a level that it has been able to categorize its user based on the service that they are using. Some of the

categorize that its user have been divided to are: Mobile subscribers, Fixed Line Subscribers, Internet Subscribers, International Subscribers etc.

During the years, Etisalat has managed to make sure that its customers are kept happy and are retained. For instance taking an example of the DSP (Daily Social Package) that Etisalat provides its user with a minimum manageable charge of 2 Dhs per day and 49 Dhs per month. During the early days when the whole concept of Internet was new to the people, there were many complications in setting up the internet connection. Even the dial up part of it was a frustration as it kept the user wait for hours before it could work. During the early days, even the speed of the internet was really slow. It would take hours for a page to be loaded which kept the user waiting. In order to increase their business and encourage people to buy services, Etisalat resorted to making innovative decision. By looking into the needs of the people and the complications that were needed to be taken into consideration, Etisalat decided that it needs to further work on the services that it provides and also enhance it to such a point that people will be happy at the organization. By keeping their organization happy, it can not only retain its customers but it can also attract more people into becoming their customers. Instead of paying 300 Dhs for 10 GB internet access, customers can now buy cheap services to fulfill their needs. For instance if a customer just wants to access internet through his phone he could use home internet or data packages. Etisalat provides different kind of services for its user. A customer is able to use internet from his home or if he/she is travelling, they can subscribe to data services. In this way, they can travel to any place they desire and at the same get full access to internet.

3.7 Objectives:

- I. To investigate how decision making plays a critical role in projects along with its challenges.
- II. To investigate how diversity can enhance or hinder effective decision making.

- III. To investigate how the decision to adopt a new idea in a project can be influenced by diversity and how it impacts innovation success.

3.8 Problem Statement:

How a does a diversity in the market of UAE foster telecommunication organizations to innovate their decision making process?

UAE is a multi-culture country. This means that there are different people who live in the country who bring their culture to UAE. Telecommunication organizations it should always try to innovate different ideas so that it doesn't fall back when it comes to the market. People from different cultures might want different things since their cultures differ. For instance, Chinese people that live in the country might not want to use social services such as Facebook for instance. In order to attract Chinese customers, telecommunication organizations must be able to innovate a package so that the Chinese people don't have to pay for the service that they use. In their Daily Social Package that a certain telecommunication organization offers for 2 Dhs, it includes social apps such as twitter, facebook, whatsapp and bbm. This is one way of attracting the customer by paying a minimum amount of 2 Dhs, the customer can be take part in social interaction without having to worry about the restricted limit to which they can use apps such as facebook or whatsapp or bbm to interact with other people. However, in order to attract the attention of more customers and also to retain their old customers, the certain telecommunication organization must also work on still reducing the cost from 2Dhs or providing more than just a few apps that can be run on the social data package that it offers. In this way, the specific organization can ensure its customer that it does all it can to ensure customer satisfaction and in this way.

Furthermore, when it comes to phone calls, the rate that an organization charges its customer can also be another factor that the same organization must consider to innovate it. In order to compete with fellow rivals in the market, one way the organization can satisfy its customer is to provide free local calls when a customer subscribes for E-life connection. This is one way in

which customers have been kept satisfied. Not only do they get fast internet access, they can also make unlimited calls for free. This is for middle class and higher class people. In places where phone calls are needed for companies to make transaction or to interact with customers, this can be of huge benefit. Furthermore, by using the high internet speed of E-life, telecommunication organizations have targeted most of their customers when it comes to gender. Through this, families that live in different parts of the city can call each at any time of the day and interact without having to worry about their bill because it is all free. Not only this, but high internet connection also gives them the option to talk free on Skype. So by purchasing E-life connection, the customer is able to make calls anywhere in the world provided that the other person also has internet access. They can interact with each other even if they live in different countries. Not only this, but they can also make video calls and see each other face to face without having to worry about their bill or a certain limit of data that they can use. The high internet speed also enables men and women to watch their shows online as they stream with no lags. Not only this, but youngsters can also download their movies or shows in an instant.

When it comes to business perspective, business people usually want to set up their business in such a way that they keep their spending cost minimum while seeking the best services. Etisalat has collaborated with banks to keep the business sector people customer of it satisfied. Not only this, but telecommunication organizations can also collaborate with electricity and water departments for instance. Business people value time and it is critical that they get their work done without any delay. By providing the business sector of their customer's easy access to pay their bills without themselves going to the electricity and water department, this is one of the ways in which an organization can retain their customers.

Telecommunication organizations can also install machines at malls or outlets for customers to pay their due bills. So imagine if people have forgotten to pay their bills, they can easily drive to the nearest mall or outlet or gas station marts and pay their bills. This is very convenient especially if one is a businessman.

However, telecommunication organizations must keep in mind the difference in age factors that may influence the people from buying certain packages. By conducting surveys, the people working in the organization can find not only about how satisfied their customers are with their services, but they can also find what they are not satisfied by. For instance, a businessman is more into video conferencing and the stock market when it comes to handling his business. The service provider must ensure that it comes up with a innovating package that reduces the cost of data package to as minimum as it can in order to keep their customers happy.

3.9 Success rate:

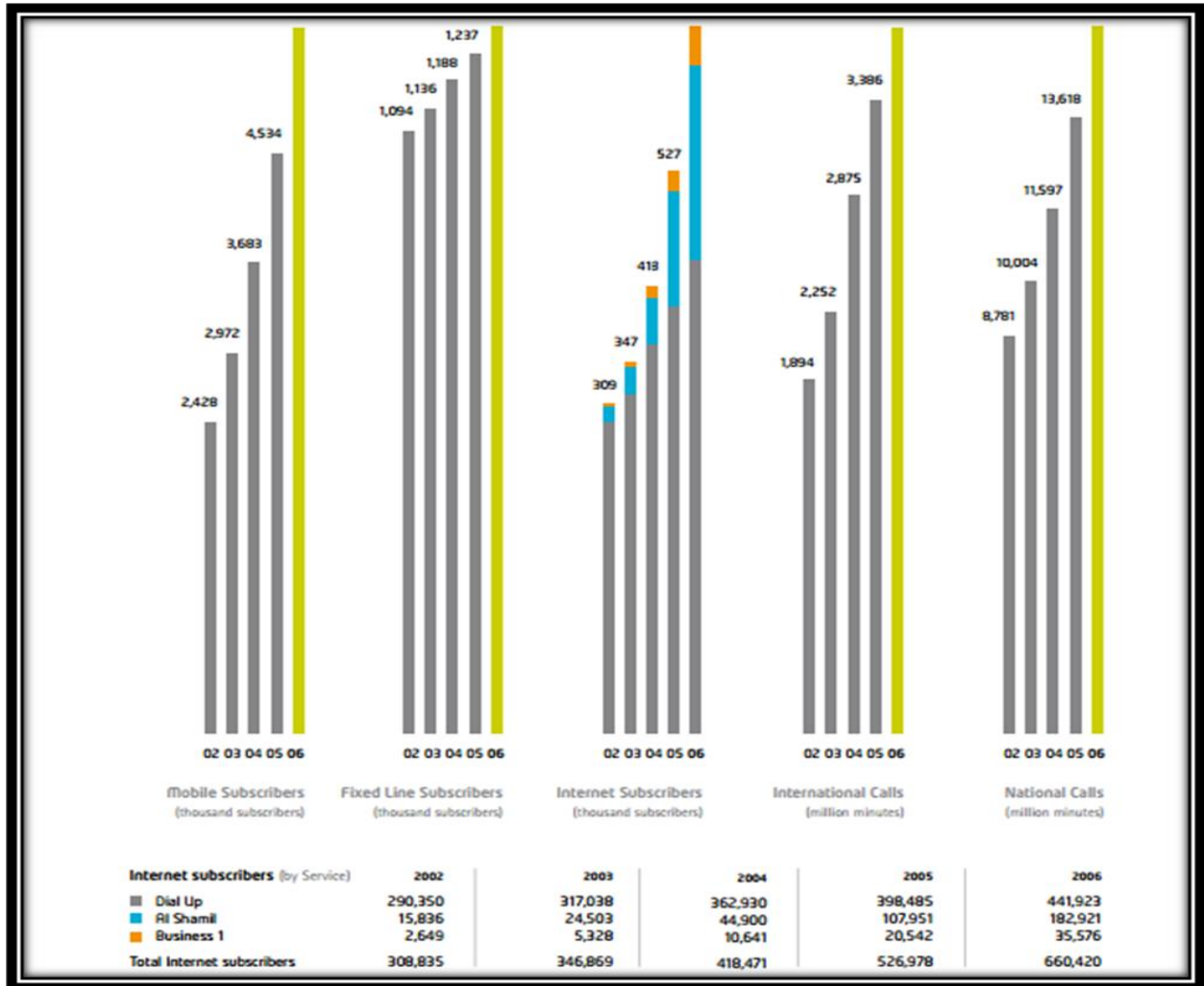


Figure 2: This graph indicates the rise in the number of subscription between the years 2002-2006

Figure 2 shows the success bar graph of a telecommunication organization between the years 2002 to 2006. As from the reading of the bar graph, it can be known that in the year 2002, mobile subscribers were 2,428 thousand. Innovation and customer satisfactory could be some of the reasons as to why it kept on increasing in the year 2003 to 2,972 thousand subscribers

followed by 3,683 thousand subscribers in the year 2004 and this kept on increasing. This showed that the innovation ideas that were used in the decision making actually paid.

Furthermore, the information that is provided in the same figure also suggests that since the customers were satisfied with the means of phone calls, only they opted for other services that Etisalat provided which are Fixed line subscribers, Internet subscribers, International calls and National calls.

The graph also suggests that the number of people who applied for Fixed line also kept increasing. In the year 2002, the number of subscribers were 1,094 thousand subscribers followed by 1,136 thousand in the year 2003 to 1,188 in the year 2004. This proved that people to a certain limit were satisfied with Etisalat in providing them fixed landline. This can only be achieved if the organization had offered them new prices or packages in which more and more people applied for it and also Etisalat found ways to retain its customers.

Internet subscribers had the most increase when it comes to number of subscribers. The organization provided 3 types of Internet packages: Dial Up, Al Shamil and Business 1. The Dial up subscribers increased from 290,350 in the year 2002 to 317,038 in 2003 followed by 362,390 in the year 2004. In the year 2005, the number of subscribers further increased to 398,485 and then increased to 441,923. This means that either the organizations service were really good or the offer that Etisalat provided was good which attracted many people and cause the increase in the number of subscribers.

The same goes for Al Shamil subscribers. In the year 2002, it had 15,836 subscribers and then in the year 2003 the number increased to 24,503 which was then followed by 44,900 number of subscribers in the year 2004. In 2005, it was found that the number of subscribers increased to 107,951 and then it increased to 182,921 in the year 2006.

On the other hand, the Business 1 internet package was also accepted by the people as the number of subscribers kept increasing from 2,649 subscribers in the year 2002 to 5,328 in the year 2003 and in the year 2004, the number of subscribers was found to have increased to 10,641 which was double the number of subscribers it had been the previous year. In 2005, the

number of subscribers further increased twice what it had been in 2004 and was now 20,542 number of subscribers. This kept on increasing and in the year 2006, it was found that the number of subscribers reached a total of 35,576.

Even the number of subscribers who subscribed for International Calls also increased. In the year 2002 the total number of subscribers were 1,894 thousand which increased to 2,252 thousand subscribers in the year 2003. In the year 2004, the number of subscribers further increased to 2,875 thousand subscribers which further increased to 3,386 in the year 2005. There was a further increase in the number of people who subscribed for international calls and by the year 2006, the total number of subscribers reached to a total of 3,769.

The last bar graph represents the increase in the number of subscribers who subscribed for National Calls. The number of subscribers in the year 2002 was 8,781 thousand which increased to 10,004 thousand people in the year 2003. The total number of subscribers in the year 2004 exceeded to 11,597 thousand which then exceeded to 13,618 thousand in the year 2005. In 2006, the total number of subscribers reached to a total of 15,650 thousand subscribers who subscribed for National Calls.

In today's world, it has been found that innovation plays an important role in the economic growth of a nation. Previously, people thought of services as non-innovative activities, or the idea about service innovation was considered to be just technology advancement process. However, these traditional approaches have been increasingly challenged in the recent years. This was because people underestimated the dynamics of the service sector which proved to be inconsistent as compared to that of the service economy. Later on, it was found that the service sector is responsible for almost 70% of gross production employment that exists in member countries of the Organization for Economic Co-operation and Development (OECD, 2005). Through this, it can be realized that the whole topic of innovation in services must be increased to more than just the conventional approach. Some researches that have been conducted have successfully been able to make people realize that innovation in services exceeds far more than what it was assumed in the traditional perspective, which just restricted it to adoption and the

operation of technology (Gallouj & Weinstein 1997; Sundbo & Gallouj, 1999; Tehther, 2005). Through these researches, researchers were not only able to recognize the features of the service product but also their complication, co-production and co-terminal.

Research into innovation has not focused on the service sector. There exists an analytical problem when it comes to defining service output, which also changes the definition of service innovation. When it comes to the analysis of service innovation, researchers have merely used analytical tools that are required for production within the “traditional technological view of innovation”. It is because of these approaches that there are misunderstandings and underestimations of the impact innovation activities. Based on Gallouj and Savona (2009), it is because of these underestimation and misunderstandings that innovation in services has resulted inappropriate conclusions that innovation has a very minor impact on economic performances when it comes to production and value added of services. In this way, it is very crucial to have a clear definition of services and to understand the characteristics of it in order to measure the innovation output in the services and also in order to understand the effect it can have on the economy. However the study of service innovation instantly raises a question of how a service is to be interpreted (DTI, 2007). The term service production refers to an operation or a treatment protocol which causes an alteration of state but does not create a tactile good (Gallouj, 1998). It is due to its intangibility and unstable character which makes it hard to give a proper definition to the term ‘service’ (Melvin, 1995).

Innovation as a process consist of three stages, “Initiation”, “Implementation” and “Development” (Damanpour, 1991; Utterback, 1971; Zmud, 1982). The first stage which is the “Innovation” stage is when an organization has to adopt a specific innovation or try to make one. These adoption might be the result of losing shares in the share market, due to their financial problems or problems that they face with their operation (Kanter, 1982; Tushman and O’Reilly, 1997), or it could be due to the firm setting their mind on a certain business innovation (Nonaka, 1988; Tushman and Nadler, 1986). Furthermore, Tushman and Katz (1980) and Tushman and Scanlan (1981) claimed that the people who use the services along

with environmental scanning process can be a means of providing feedback for the “Initiation” stage.

The second stage of the innovation process is the “Development” stage. In this stage, the implementation of a certain product or service will take place. The implementation will be based on the agreement and planning of the firm which has already been decided upon. The name given to this stage can be idea generation and problem solving (Tushman and O’Reilly, 1997). It is at this stage that huge processing of the data that has been made available will be done and a decision has to be reached as soon as possible as argued by Eisenhardt and Tabrizi (1995). New data from competitors (Tushman and O’Reilly), users (Drucker, 1988) alongside available information can be collected and used in generating new innovation ideas or products (Galbraith, 1982). Other ways of approach that can be used to help in the process are cross functional groups and virtual teams (Tushman and Nadler, 1986).

The third and the final stage of innovation process is “Implementation”. It is at the implementation stage that all the process and tasks take place. The product design in this stage can change the procedures that were involved and this will in turn change the implementation control system (Davenport, 1993). In order for the control system to meet the level that is needed for innovation, it should be made tight to a certain level (Galibraith, 1982; Seely Brown, 2002).

Furthermore, service innovation studies have tried to advance more than just the production point of view (e.g., Gallouj; 2002; Gallouj & Weinstein 1997). They have even tried to analyze its peculiar behavior in terms of innovation. In the table below, there are two service based approach (Gallouj, 1994) and integrative approach (Gallouj & Weinstein, 1997) are conceptualized approaches that have exceeded beyond the traditional framework. Table 1 represents the three conceptual methods to innovation in services. These are: assimilation, demarcation and integration.

Theoretical Perspective	Assimilation	Demarcation	Integration
Type of innovation	<ul style="list-style-type: none"> • technological 	<ul style="list-style-type: none"> • non-technological 	<ul style="list-style-type: none"> • complex • architectural
Characteristics of innovation	<ul style="list-style-type: none"> • equates or reduces innovation in services to the adoption and use of technology • considers technological or visible modes of product and process innovation 	<ul style="list-style-type: none"> • leads to new typologies for innovation in services: non-technological types of innovation such as organizational innovation, ad-hoc innovation, and marketing innovation 	<ul style="list-style-type: none"> • shows convergence between manufactured goods and services in regards of innovation • includes technological and non-technological innovation
Innovation framework	<ul style="list-style-type: none"> • attempts to assimilate services within the consolidated framework used for manufacturing sectors and manufactured products 	<ul style="list-style-type: none"> • attempts to develop a specific framework for service innovation, while attempting to highlight all the specificities in service product and production processes 	<ul style="list-style-type: none"> • attempts to develop a common conceptual framework, able to account for an enlarged view of innovation that is applicable to any tangible or intangible product • proposes a new taxonomy of innovation in services based on a new definition of

Table 1: Conceptual approach for innovation in services

3.10 Assimilation

When it comes to the assimilation type of approach, the innovation in services is regarded to be the same as the innovation in manufacture. Through this traditional approach to innovation in services, it is just the technological and the visible modes of process or production that are taken into account. Other non-technological and invisible modes of innovation are not taken into account. Some of these non-technological and unnoticeable modes of innovation are “social innovations, methodological innovation, organizational innovations, innovations involving intangible products, marketing innovations, etc.” (Djellal & Gallouj, 2010b). In this way,

assimilation process underrates innovation in services that has to do with non-technological and invisible information-based nature.

When it comes to theoretical and empirical works favoring an assimilation, it has been found that it is approved a lot. Barras' reverse product lifecycle (Barras, 1986) played a significant role in not only information technologies but also played a significant role in communication technologies in service activities and also helped to identify their effect on innovation. It has been found that if the reverse product lifecycle is compared to that of a traditional product model (Abernathy & Utterback, 1975), it can be found that it starts with how to improve the efficiency of the service produced which is then followed by an increase in the radical process innovations on how to enhance the standard of services. The last phase of which the manufacturing of advanced product innovation.

Furthermore, another important example that can explain more about assimilation approach is that of new developing taxonomies for innovation, which emphasizes various possible courses for various group of activities based on the situation of their technological aspect (Evangelista, 2000; Soete & Miozzo, 1989; Miozzo & Soete, 2001). Soete and Miozzo's taxonomy (1989) shows the different that exists between the following trajectories: scale-intensive, science-based, supplier-dominated, specialized suppliers and information intensive.

Innovation systems are also useful in other important concepts such as that of interactive as well as dynamic process (Nelson, 1993; Edquist, 1997; Lundvall, 1992; Manley, 2002).

3.11 Demarcation

Through the demarcation approach, it has been found that the study of service innovation activities by only taking into consideration the conceptual and empirical tools that are just used for technical-based stuff is wrong (for instance; R&D, patents and accumulation of capital). Furthermore, based on Gallouj and Savona's (2009) natural lifecycle of theoretical concern, it is the assimilation method that is used for representing the maturity phase.

It is in the demarcation that factors such as specifications regarding the goods followed by different modes of organization and their innovation procedures in services are taken into account (Gallouj & Savona, 2009). Based on this, the importance of service courses along with their service output characteristics (e.g., new methods, service customization, new solutions and new organizational structures, problem solving) can be realized. It is through these innovation activities that the economy of a country can be enhanced.

The demarcation method also results in many different systematic classifications for innovation in services; these classifications are used in services which have non-technological types of innovation. For instance, marketing innovation, ad-hoc innovation, and organizational innovation. Gadrey and Gallouj (1998) together made a new classification for consultancy in which it is broken down into 3 fragments. These 3 fragments which are the varieties of innovation include: formalization innovation, ad-hoc innovation, new expertise field of innovation. McCabe (2000) on the other hand targeted organizational innovation (e.g., work companies and standardized ways of management control) related to services regarding finance. Van der Aa and Elfring (2002) have enhanced a taxonomy on three types of organization innovation which are: customers as co-producers, multi-unit organizations and new combinations of services.

3.12 Integration

The integrative or synthesizing is the combination of both the assimilation and demarcation types of approach with a common framework that widens the view of innovations. The integration type of approach makes use of services, goods, technological and also the non-technological modes of innovation (Gallouj & Windrum, 2009, Gallouj & Savona, 2009). Gallouj and Weinstein (1997) provided the most important contribution in the integration method of approach. Through this type of approach, it was possible to use a characteristic-based representation to the product. As it was mentioned before, due to the 4 vectors, innovation can be defined based on the changes that influence one or more elements of one or more vectors of characteristics (both technical and service) or of competence (Gallouj and Savona, 2009).

The significance of the integration method of approach can also be related to the fact to how boundaries between services and goods have become hard to distinguish. This structure has been made strong by the combination of services and manufacture, in which the distinction that exists between the service and the manufacture goods is increasing in difficulty because of the innovation blurring and service dynamics. Based on this new context, there are two main changes that are taking place. Firstly, production is becoming more like services. On the other hand, services are becoming more like productions. Based on previous cases, it can be realized that manufacturing organizations produced additional service products which are related to the main products of the industry and through this, they manage to achieve higher proportions of their turnovers by selling services (Howells, 2006). The name given to this process is called “servitization” of the production industry (Quinn et al., 1990).

Based on the second scenario where the services turn out to be more manufacturing-like innovation (Howells, 2006) it can be found that firms are becoming more and more innovative and this can be observed in the traditional approach to innovation in manufacturing. Thus, the integrator framework is to remake the product so that it offers a relatively solid structure to generalize a theory of innovation for material and immaterial product” (Gallouj & Savona, 2009). It has been found that the integrative method is widely used in the recent literature regarding innovation in services. Furthermore, it has been found that integrative method of approach is more used in conceptual framework and empirical tests in both the technological and the non-technological innovation (Gebauer, 2008; Ulaga & Reinartz, 2011; Tidd, 2006; Hipp et al., 2000).

The productivity of non-technologically based services and the productivity of immaterial will need other ways of approach in order to measure them. For instance, Biege and colleagues (2013) indicated that service features were observed as a result of gap that existed in evaluating productivity in services.

Chapter 3: Research Methodology

4.1 Decisions for successful innovation

4.1.1 Four dimensions of success factors

Throughout the years, many researchers have identified various critical successes when it comes to product innovation. Montoyo- Weiss et al (1994) has provided a structure best fit using the drivers for project level success. In this structure, it consists of 4 main dimensions namely: strategic, market, development and organizational factors. Other innovation authors such as Cooper et al (1995) has analyzed and identified other categories. Cooper was able to establish the critical factors for importance based on performance. Cooper was able to arrange them in order: NPD process, NPD strategy, organization, and culture and management commitment. The term that was used to describe Cooper's criteria was 'techno-centric' in nature, but the negative aspect of it is that it fails to acknowledge the role of knowledge and the other non-technical components of innovation (Leonard et al, 1998).

However it is through Montoyo-Weiss et al (1994) that a wider range of variables can be achieved considering product development process starting from inception to commercialization activities and at the same time considering cultural issues.

4.1.2 Strategic Factors

Strategic factors are factors or strategies an organization has to adapt in order to compete with other organizations in the market and this is done by means of its new products and service development plants (Dyer et al, 1998). Researchers that have only paid attention on the strategic view of a product exclude one factor. This factor is the consideration of internal focused practices (Adams et al, 2006). An effective innovation strategy should only be used if it takes into account factors such as culture and behavior of the people living in a certain community or in a particular nation. (O'Brien, 2003). An embedded innovation strategy is demonstrated by the commitment of the people in the organization and clear allocation of resources that are needed to keep it running. An effective NPD strategy is that strategy through which all the objectives have

been defined, any confusion sorted out so that the members in the team can communicate well within the organization and convey their thoughts well to each other i.e. communicate well with each other. This strategy should also provide a strategy for each individually and also provide a strategy for them to make sure that they are not left behind in the long run (Cooper et al, 1995). How effective an innovation strategy is can be evaluated based on the systems and structures that are set based on the strategy and also it can be evaluated depending on how the innovation objectives succeed in meeting the strategic objectives that the organizations wants to achieve (Bessant, 2003).

One way of managing new product development is by using a technique which is referred to portfolio management (Cooper et al, 1995). A portfolio management uses the resources as a constraint in order to make sure that the resources does not run out during the innovation process (Cebon et al, 1999). One advantage of portfolio management is that it is often found to be a key determinant of competitive advantage (Cooper et al, 1999). Proper selection of criteria can result in the best selection that exists in the portfolio. Through scoring models, financial indicators such as cost/ benefit analysis, net present value and how much money is brought back in the investment can be made. Scoring models is one way in which trade-offs between investment and associated risks can be optimized. Investments in Research and Development (R&D) are considered to be one of the best practices for innovation initiatives. R&D was found to be useful when products were involved but not when it was used in service industries (Hipp et al, 2005). Furthermore, it was also found that R&D was not a useful innovative measure for SMEs (Kleinknecht, 1987) which indicates that service industries and B2B have different sources for product ideas.

4.1.3 Market Factors

Market factors usually consist of two themes. The first theme is the commercialization cycle of the product as it is in its development phase followed by the second theme which is more concentrated on the market and knowledge about the customer of what they want so that the customers are given the design and specifications that they are looking for. The term

commercialization refers to introducing the innovation to the market. In the past, very little research was conducted in measuring the effectiveness of the innovation (Adams et al, 2006). The measure includes the numbers of products that were released in the market in a certain period of time (Yoon et al, 1985). Furthermore, the proficiency of commercialism can be measured in terms of distribution, sales and promotions (Song et al, 1996).

There are different ways an organization can improve their innovation performance. Some of these ways are: monitoring, market analyzing, analyzing the competition that takes place in the market and also not delaying products and launching them on time (Verhaegde et al, 2002; Calantone et al, 1988; Griffin et al, 1983). It is crucial that the NPD process be focused based on the market market (quality of market research) and a proper understanding of what exactly the customers are looking to buy in the market (Atuahene-Gima, 1995; Parry et al, 1994).

Furthermore, it is very important that evaluation of the market potential is done precisely (Balbontin et al, 1999) along with the competitive analysis (Calantone et al, 1998). Customer integration during NPD in which the customer is an active participant in the whole process was found to have a positive impact in the overall success (Gruner et al, 1999). However, Ernst (2002) warns that information about customers in the market should be properly analyzed before being evaluated so that the results are meaningful.

4.1.4 Process Factors

It is very important that the whole process of an innovation product goes smoothly so that it does not affect success of the innovation process. A successful innovation is that in which proper staging of the whole process of innovation is done and the stages have deadlines along with what parts of the innovation process must be completed on a certain date (Cooper, 1990). There are other methodologies which are an alternate to Cooper's stage gate. Some of these are Total Design and Cycle-time excellence and phased development (Jenkins et al. 1997). However, it is Cooper's stage-gate that has received more attention than the others in popular literature and the stage-gate has been used more widely than the rest.

The speed of the innovation also proves to be an important factor in the satisfaction of customers along with the quality (Adams et al, 2006). The term innovation speed refers to the time taken, speed and performance against the deadline (Cebon et al, 1999; Chiesa et al, 1994). Furthermore, it was also found that unused capacity and slack resources were also determined to be an important factor when it comes to innovation. Slack time refers to the stage of time where resources are put to experiment and their behavior is noted so that they do not cause any problems or uncertainties in the product lifecycle (Kimberly, 1989) and address risks. Project leader plays a very important role in innovation. A project leader's performance can be evaluated based on their decision making capabilities (Cooper et al, 1995). It is also very important for post implementation reviews of the products to be made (Atuahene-Gima, 1995) along with the use of certified process (Chiesa et al, 1996).

For an effective project management, it is very important that a good communication exists between the group members. It has also been found that through good internal communication, group members can positively influence the innovation by expressing their ideas to each other and in the end come up with the best solution (Damanpour, 1991). The effectiveness of communication can be measured by keeping count of the external as well as the internal communications along with the level at which it occurs and between which group member the communication is taking place (Cebon et al, 1999). Collaboration between the manufacturer and the customer can also play an important part in the innovation of an organization. Through this, the organization that is manufacturing the product or providing services can get a clear idea of the needs of the customer and in this way, make sure that the products or services that the organization provides is close to what the customer wants. Collaboration can also be measured by calculating the percentage of projects that take place in co-operation with third parties (Kerssens-van-Drongelen, 1999).

4.2 Diversity in decision making

Workplace diversity is thought of a complex, controversial and political phenomenon (Janssens & Steyaert, 2003). It has also been conceptualized by many researchers from different angles. Some of these researchers have looked at it from a narrow perspective while others have looked it from a broad view. The researchers that have used a narrow definition argue that the term diversity should only apply to specific cultural categories like gender and race (e.g. Cross, Kratz, Miller & Seashore, 1994). Other researchers argue that narrowing diversity to just gender, age and ethnicity makes it impossible to understand diversity in the broader context regarding organizational functions, abilities or cognitive orientations (Nkomo, 1995). It has been found that the key issues of diversity arise to the surface due to discrimination and also when cultural groups are excluded from traditional organizations. (Cross et al., 1994). Therefore, if the term diversity is inclusive to all people, it will be a matter of great difficulty to identify discrimination practices. The main concern of this standpoint is that it may imply that the differences that exist between the people are all the same. In this way, diversity can then be narrowed to just 'everyone is different'. However, if this conclusion is accepted, the whole idea of diversity may become "nothing more than a benign, meaningless concept" (Nkomo, 1995). On the other hand, if the term diversity is narrowed down then only one dimension of cultural diversity (gender, race, age, and ethnicity) is by and large the subject of research at a time. Researchers, who use a broader definition (e.g. Jackson, May & Whitney, 1995) argue that there are different ways in which people can differ. Based on this thought, individuals do not only differ due to their gender, race, age or demographic categories. But there are other factors that also make them different such as their abilities, personality, organizational function and tenure. Furthermore, researchers and scholars also realized that an individual has multiple identities. Apart from just the age, gender, race and ethnicity, individuals also come with their own particular knowledge, personality and how one understands and reacts in a work place. So in order to understand the dynamics of individuals, it is very important to address the interactive effects of multi-dimensional diversity. Theoretically workplace diversity is considered to have three different theoretical frameworks for examining different effects of diversity. The first

framework is social categorization, this categorization is based on attributes such as gender, age or ethnicity. The second framework is the similar/attraction theory which is based on attributes like the race or “values increase interpersonal attraction and attachment” (Berscheid & Walster, 1978). The last framework is information and decision-making theory, which analysis the impact of how information is distributed and expertise in work-teams (Wittenbaum & Stasser, 1996).

Now when it comes to service and services quality, it has been found that in order to achieve higher levels of quality service, it is very essential that the service companies provide higher levels of service quality than compared to what exists in the telecommunication market (Hossain and Leo, 2009). Agus et. Al (2007) also realized that there were two categories procedures when dealing with quality of a sevice. The main focus of primary sector organizations is solely on economic efficiency, as survival, competing and growth only comes when there is profit or ways that can reduce the cost of services (Cooper, 2004). Furthermore, Agus et. Al also realized that there a strong correlation also exists when it comes to service quality dimensions, customer satisfaction and service performance. It was also found that service providers that were rated as “excellent” were only rated so because of their performance in terms of responsiveness, credibility and access. One can say that service is a type of attitude which is related to satisfaction of the customer and also proves how loyal an individual is to a particular firm (Johnson and Sirikit, 2002) and purchases to be made in the future. Consumers are usually attracted to those service qualities that have a fixed price along with fixed constant elements cost (Boyer and Hult, 2005). This has become one of the most important aspects of product and service offering (Wat et al., 2002). Based on Leisen and Vance (2001), service quality is one way to create a competitive advantage by being an important factor in the differentiating factor. Service quality could be traced back to the 1980s when marketers realized that quality product alone did not bring an advantage in the market (Wal et al., 2002). Service quality is a necessary and a critical factor in the service provider company because it is only through good services and good products that a customer can stay loyal and be satisfied with everything that is provided to him/her by the service provider company (Zeitham, 2000; Leisen and Vance, 2001). According to Johnson and Sirikit (2002), it is through the service delivery system that the managers of a

service provider company is able to identify the real customer feedback and how pleased they are with the company's telecommunication service. It is through quality of a service that the customer is able to reflect what he expects from a product or service. Lovelock (1996) stated that it is because of this customer driven quality that the old tradition marketing philosophies have been replaced.

Customers play a very important role in the shaping of an organization. An organization cannot function on its own without their customers. Therefore it is of great importance that the organization takes every step it can in order to keep its customers satisfied. According on Wicks and Roethlein (2009), higher retention rates are only achieved by organizations who are able to keep their customers satisfied. Not only this, but they also gain profits because of their customers loyalty in the long run. In the year 2008, it has been found that about 87% of customers stopped business transactions with organizations due to their poor customer service. Furthermore, it has been found that customers look more into how they are treated than the pricing of an organization. In this way, it is very important for the organization that they manage their employees properly so that they can meet the needs of the customers without any problems. Johnson (2004) said that services whether they are good or bad will have a huge impact on customers in a sense that it will create intense feelings towards the service providers and its staff which will also play an important role in customers showing their loyalty towards the firm.

When it comes to service providers in the UAE, it is very important that they provide services for a multi-national country. To overcome this problem, it is very important that the service providers use a diverse workforce in their organizations. One of the organization in the UAE runs approximately more than two thirds of the UAE mobile phone market. This firm also runs more than three quarters of the land line and internet market. It is very important for the service providers to make sure that each of their customers are dealt with individually. This is important because, once a customers get disappointed or notices that his problems aren't being dealt with by the organization he will leave the service provider for another one. Once a customer is lost, it is very difficult to get the customer back especially in such a competitive world where new organizations keep opening up. In today's world, a customer can't just be happy with products

and services only. In order to keep a customer happy, new steps have to be assigned to attract more customers and also to retain the ones the service provider has. Below are some of the points that play an important role in customer retention:

1. Provide great customer service

It is very hard to retain customers when an organization does not have proper customer service techniques. Since the organization is going to be dealing with multi-national customers, it is of great importance that the organization itself has a diverse workforce. In this way, communication between the people in the organization and the customers can be friendlier and the customer can talk to the service in their desired language. Failing to do which, the customer will always remember the good services but not as much as the bad services he goes through.

2. Troubleshoot

Another way in which service providers can show that they care about their customers is by providing them solutions incase their products don't function properly. In order to this, the service provider must always keep in mind than in business, customers are always right. By approaching them with this in mind, the organization can then approach the problems of their customer in a much friendlier way. It is very important that the organization trains their workforce to make sure that they stick with their customers till they are able to solve their problems. In this way not only will the customer appreciate the effort the service provider is putting in order to solve their problems but the customer also feels how important each individual is to the organization. Bin this way, the customer are more likely to purchase or subscribe to more services if they feel the service provider is friendly.

3. Keeping in touch with the customers.

By keeping in touch with their customers, the service provider is able to get feedback from their customers. This will not only boost the interactions and result in friendlier environment, but it will also enable the organization to get any complaints from the

customer which will help them to report any problem and also give them ways in which they can work on their innovation. In this way, they can come up with new ways to keep their customers happy and try to reduce their cost in order to attract more customers.

4.3 Advantages of diverse workforce and customers.

Another impact of customer diversity is the multi-language conversations that a service provider has to provide in order to solve their customers issues. Especially in UAE, since the official language is Arabic, not everyone knows Arabic so when a situation arises where a customer can express his problem in Arabic and the customer service department can't interpret the problem then it is going to be hectic. In this way, it is very beneficial if the service provider has a diversity workforce. By having a diversity workforce, under the proper leadership the service providers can attend to all problems of their customers especially in a monopoly country. Furthermore since the population of people in the UAE is on a rise, service providers use machines which can help people choose their desired language by calling 101 for instance and report their problems to the customer service in their very own language. On the other hand by having a diversity workforce there are several complications that can take place. For instance if the workforce is not able to communicate to each other properly then problems can't be solved and they will be struggling to understand each other. Some of the advantages of diversity in the workplace are:

- **Increased Productivity:** Diversity and inclusion bring in different talents which can help people work towards a designated goal by using different skills. Not only this but it also displays their loyalty to the firm and increases their retention and how productive they are to the firm.
- **Increased Creativity and Problem solving:** With so many diverse minds working together, more solutions will arise which can give the team leader different options to choose from because every individual brings different solutions and this can boost their productivity and decision making.

- **Attract and Retain talent:** They can even be a competitive edge to any organization. The team leader can appreciate the effort that each member is doing in order to solve the issue and in this way make them feel appreciated. Even the language pool is increased which can help the organization to address their customer in any language that their members know.

It increases the market share and can create a satisfying diverse customer base: This can be achieved by relating to people with different backgrounds. If this is achieved, the service provider of UAE can be one of the best that exists in the world and many firms would want to collaborate with them.

4.4 Conceptual Model

The success of telecommunication sector usually depends on the efforts that are put to run it and proper investments. In today's world, service providers have to compete in terms of both quality and pricing. Not only this, but it of great importance that the service providers fulfill the demands that consumers look for both in terms of quality and pricing (Melody, 2001). Positive relationship of the quality of the service and satisfaction of the customer (Danaher and Mattsson, 1994; Kim et al., 2004), along with preferences of the customer (Ranaweera and Neely, 2003), profits (Fornell, 1992; Danaher and Rust, 1996), competition between service providers (Rapert and Wren, 1998), is well known in the academic literature. It is of great importance for the competing service providers to find out the critical factor that plays a major factor in the preferences of the customers. In general, satisfaction is said to have developed on the information based on all the experiences with the service provider and is considered to be a function of all prior transaction and information (Parasuraman et al, 2000). Nowadays, mobile phones are a very important aspect in people's life because of the need of communication with other people. It is through these communications that some people run their business on and some people arrange for meetings. It is only recently that the concept of customer satisfaction has played a major role in attracting and retaining customers that so much focus has been placed on it. In cellular market, customers bring more and more expectations for communication from

their service providers and if the service providers are not able to deal or meet the expectations of their customers, then there is a huge chance that the customers will go in search of other service providers. Customer's expectation and needs keep on changing from time to time and this results in a situation where the customers keep increasing the level of bench marks more and more. Using customer satisfaction approach method helps the people working in the service provider to recognize their customers, observe their needs and expectations, and to provide them with what they want. A company's success factor depends on the ability of the company to deliver better customer value than the competitors do, and the main purpose of the strategy is to provide the customers with what they need in order to provide payment to their shareholders and employees (Riggs, 1983). Haque et al (2010) and Haque and Rahman (2010) provided the attributes and dimensions for mobile services as shown in Table 2.

In order to achieve higher levels of quality service, it is very important that the service providers deliver higher levels of service quality. From the perspective of the service provider organization, it is all about a desire to survive and compete in the service providing market. According to Lehtinen (1991) service quality helps to create a competitive advantage and price plays an important role in the telecommunication market especially when it comes to mobile telecommunication service providers. Generally, because of variation in the price market, customers have more and more choices to choose from. This means that a company that offers services or products at lower price than the rest of the companies tends to attract more customers committing themselves to the company. One important factor that plays a major role in the customers purchasing and market decision is the quality of the product.

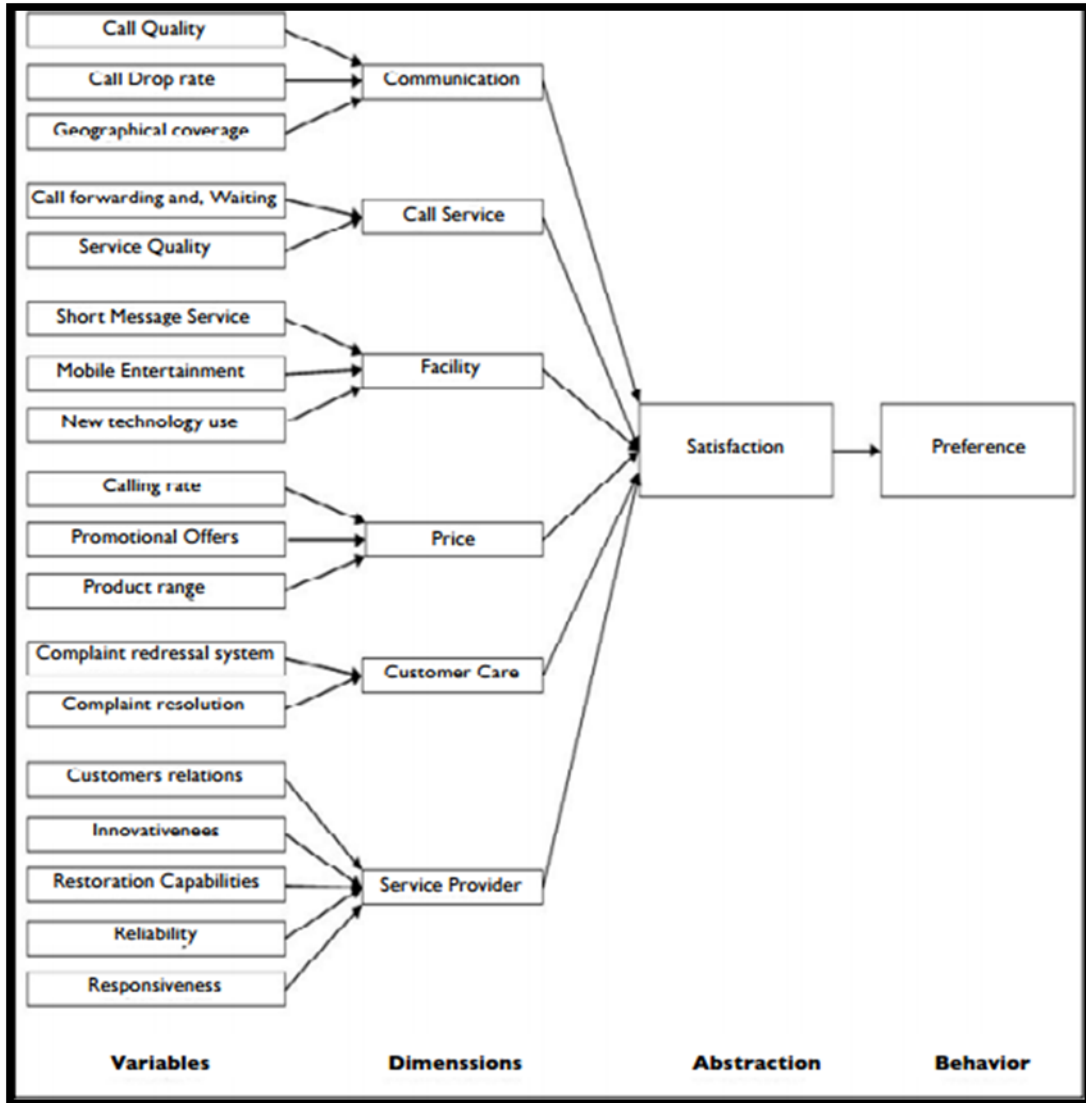


Figure 3: Attributes and dimensions for mobile services

Variables such as call quality, call drop rate and geographical coverage are connected to communication dimension. Other variables such as call forwarding and waiting, service quality are related to Call Service dimension. Furthermore, short message service, mobile entertainment and new technology use are related to facility dimension. Calling rate, promotional offers and product range are related to Price Dimension. Other variables like complaint redressal system and complaint resolution enter the Customer Care dimension.

Variables such as customer relation, innovation, restoration capabilities, reliability and responsiveness are put into Service Provider dimensions. Dimensions are categories which keep the customers satisfied so it is of great importance that the variables which make the dimensions be fulfilled. If any one of the dimensions are not fulfilled, then the customer's level of satisfaction will drop. This can result in the customer being unsatisfied with the way things work and can be the reason why a customer drops from the firm. Once a customer is dropped from the list, it is very hard to win the customer back. A company should be place more and more attention on the variables as displayed in the above figure in order to retain their old customers and also show the other customers that they firm does everything that is in its hand to meet the expectations of the customer.

4.5 Evaluation

The table below shows the indicators that exist in the telecommunication sector of UAE in the year 2014. This table includes the total number of subscribers, revenues, voice minutes, ARPU (Average revenue per user) which is total revenue in a given period of time divided by the number of subscribers during the same time, and AMPU (Average minutes per user) which is the total minutes provided for a period of time divided by the average number of subscribers during the same period of time.

Indicator	Fixed Telephony Services	Mobile Services	Internet Services
Subscribers	2,103,000	16,819,000	1,090,293
Revenues (billions, AED)	2.7	25.5	4.6
Voice Minutes (billions)	2.9	28.7	N/A
ARPU ⁽¹⁾ (monthly, AED)	110	126	354
AMPU ⁽²⁾ (monthly, minutes)	116	267	N/A

Figure 4: Indicators that exists in the UAE telecommunication service

The graph below shows the number of fixed lines between the years 2011 and 2014 in UAE. In 2011 the number of fixed lines per thousand is said to be 1,825 with a penetration rate of 31%.the number of lines per thousand kept on in the next 3 years as one can notice from the graph. On the other hand, the penetration rate kept on decreasing till it was the same 25% as that of what it was in 2013.

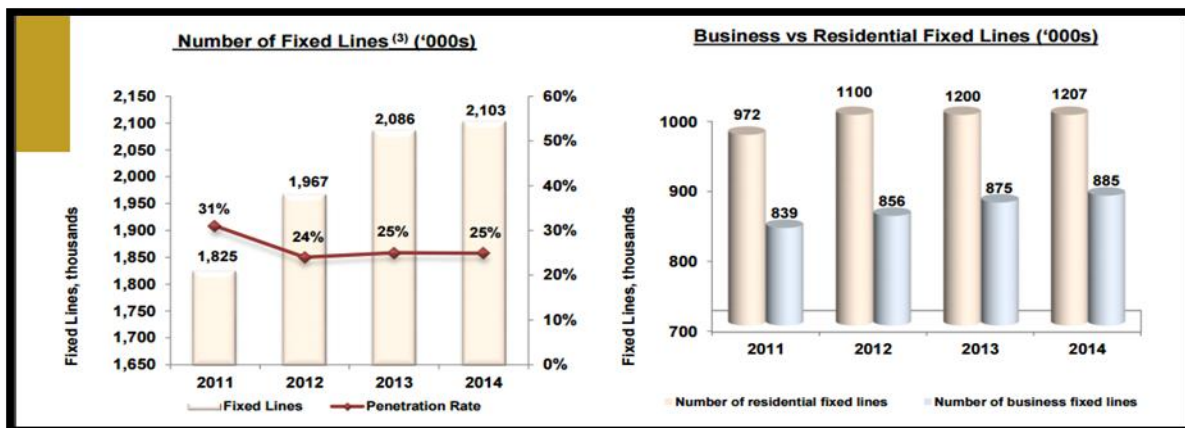


Figure 5: Number of fixed lines and business vs residential fixed lines

Furthermore, the graph above even shows that the number of residential fixed lines have also been increasing. This means that people were satisfied with the offers and the quality of services that was being provided to them by the service provider. The number of business also increased as shown in the graph. This implies that business individuals were also satisfied with the offers and packages that were being offered to them by the service providers. It can also imply that the pricing of the services and goods were also manageable which encouraged people to buy more and use more services. These factors are the cause of increase in the number of residential fixed lines and number of business fixed lines.

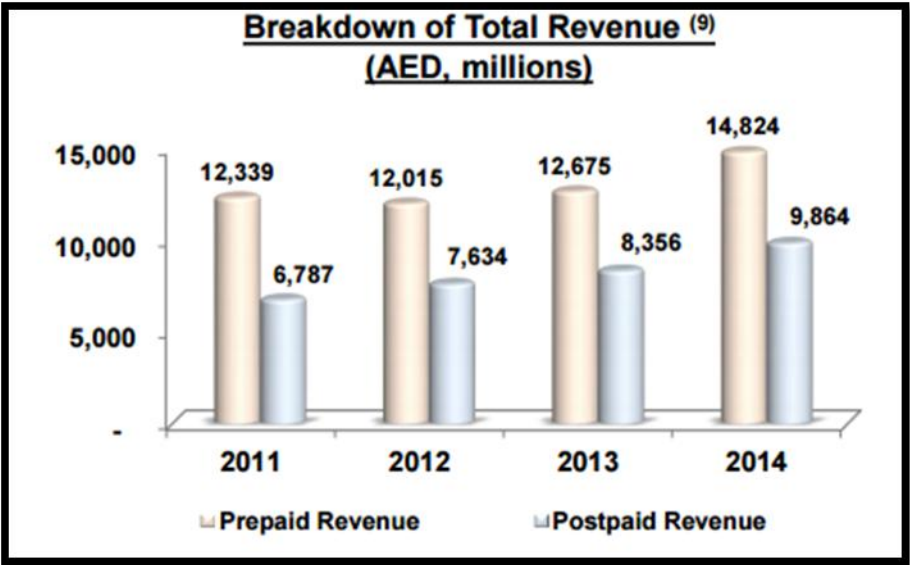


Figure 6: Breakdown of Total Revenue

The above graph shows the breakdown of total revenue in millions. In 2011, the prepaid revenue is 12,339 while the postpaid revenue is 6,787. In 2012 the prepaid revenue dropped to 12,015 while on the other hand, the postpaid increased to 7,634. There was an increase again in both the prepaid and postpaid revenue in the year 2013 and finally in the year 2014, the prepaid revenue went up as high as 14,824 in millions while the postpaid revenue also increased to 9,864 million. Revenues generated from mobile services increased to 14.9%. Majority of the revenue came

from prepaid services which increased to 16.9% to what it had been in the year 2013 as shown in the graph below.

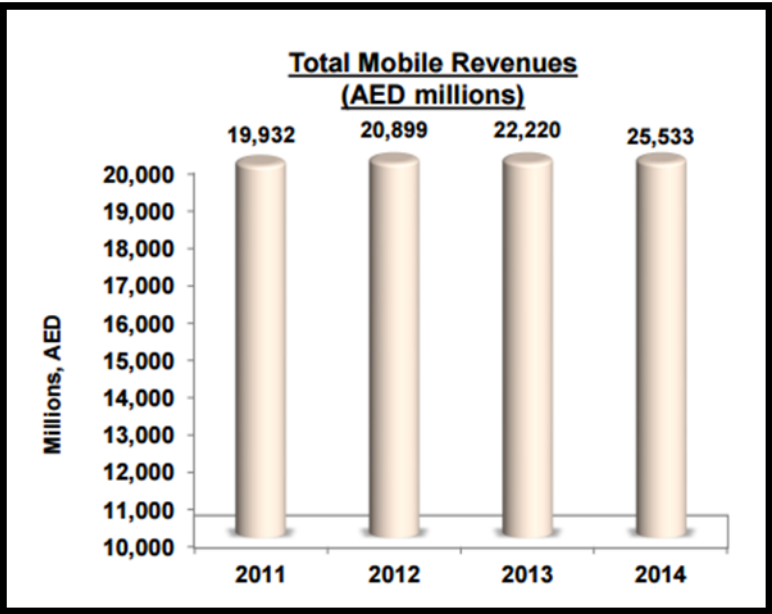


Figure 7: Total Mobile Revenues

The graph shown below also shows the number of text messages has decreased from 2011 to 2014. This is because of new software apps such as bbm, whatsapp, imo, facebook etc. Service providers offer people access to internet for monthly charges. If people have already subscribed to internet services or they have used daily packages that provide data, they can send msgs to each other without paying for it. This is one way in which service providers have reduced prices in order to keep their customers satisfied. Due to this, the number of sms has decreased. Why waste money on sms when customers can send nonstop msgs to each for free?

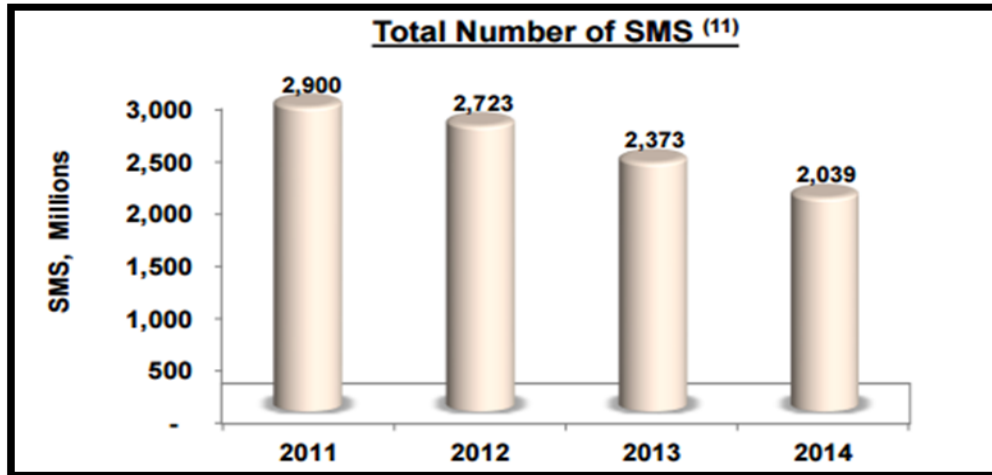


Figure 8: Decreased number of sms between the years 2011-2014

The same goes for the number of MMS, as one can see from the graph below, the number of mms have also decreased from 51 million in 2011 to 43 million in the year 2012. It kept on decreasing to 33 million in the year 2013 to just 20 million in the year 2014. The reason for this decrease in the number of MMS is due to the availability of internet. With just a package of 3Dhs, individuals can get access to 150 MB internet a day. There are apps that let one send any kind of picture, file, photo, etc. So when one can send anything he wants nonstop without worrying about how much it will cost him to send no matter what kind of file then why is there a need to send a MMS. For the cost of 1 MMS an individual can spend like 3 Dhs so isn't it better to get a package which provides 150 MB internet access for the same price? Instead of sending just 1 MMS an individual can send as many files as he wants till his data runs out.

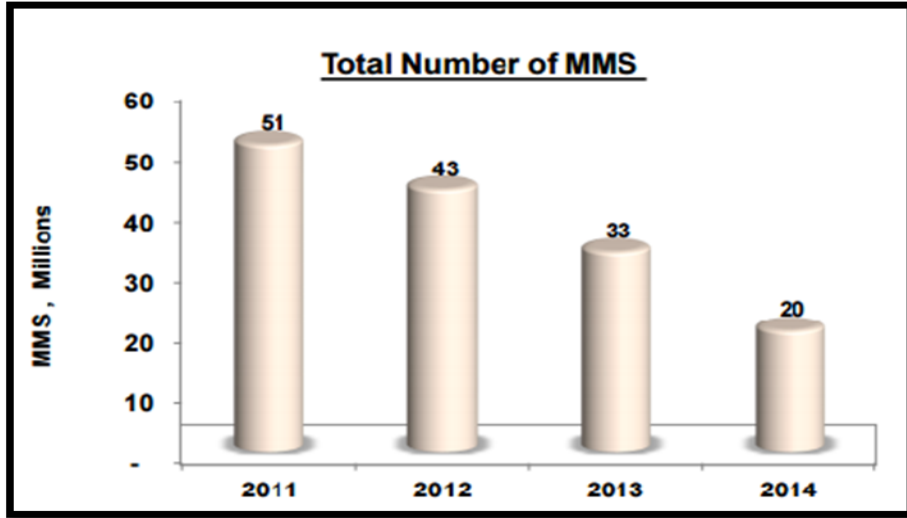


Figure 9: Decreased number of MMS between the years 2011-2014

Figure 10 shows the negative growth of SMS and MMS between 2011-2012 which is -6% for SMS and -15% for MMS. The negative growth further continues between the year 2012 and 2013 and reach almost twice that it was in case of SMS to -13% and in MMS to -23%. Between the years 2013-2014 the negative growth continued to -14% for SMS to -39% in MMS.

	% Growth 2011-2012	% Growth 2012-2013	% Growth 2013-2014
SMS	-6%	-13%	-14%
MMS	-15%	-23%	-39%

Figure 10: Shows the negative growth of SMS and MMS

The graph below shows the total number of internet subscribers that subscribed to service providers in order to get internet. Then number of people in thousands that subscribed to internet

in the year 2011 is said to 1,327 as compared to 2012 which decreased to 958. In the year 2012, the decrease could be because of the quality of the internet was not good or most probably the pricing was not favorable to the people which is why less number of people have subscribed. Another reason could be there were no good promotions going on which could have been another factor that did not encourage people to subscribe to internet.

Furthermore, information regarding the number of people who subscribed to the internet via technology has also been shown in the graph. In 2011, Wi-Max had 6 thousand subscribes. As you can see in the graph in the next 3 years, the number of subscribers subscribed to it decreased in the next 3 years. On the other hand, the number of people using copper wires also decreased from 2011 which was 827 thousand to just 122 thousand by the end of 2014. Another information that can be gained from the below graph is that fiber cables had just 495 thousand people but as one can notice, as the number of Wi-Max and copper decreased, the number of people who used fiber optics kept on increasing and by the end of the year 2014, it was almost double of what it had been in 2011.

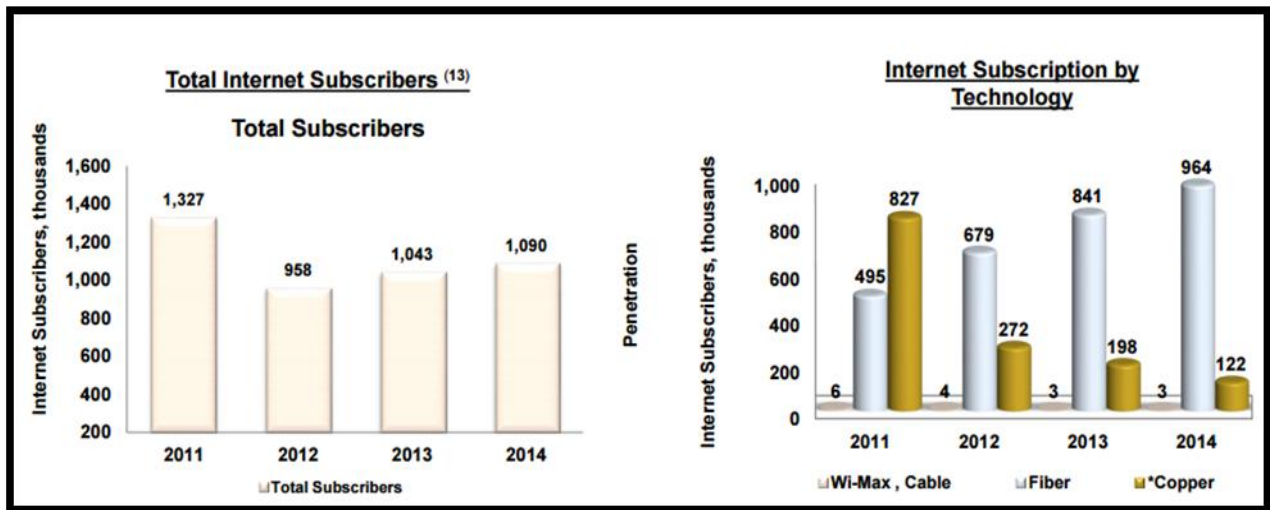


Figure 11: Total internet subscriber and Internet subscription by technology

Moreover, the graph below shows the number of residential internet subscribers. Based on the graph below, it was found that the number of residential subscribers in the year 2011 was 772

thousand. There was an increase in the number of subscribers in the year 2012 and it went to 847 thousand. There was also an increase in the number of subscribers in the year 2013 and according to the graph, the number of subscribers went as high as 925 thousand subscribers. In the year 2014, there was also an increase in the number of subscribers as the number reached 969 thousand subscribers. The increase in the number of subscribers denotes that people were satisfied with the quality of the service and also satisfied with the pricing of the internet so there were more and more people attracted to the services.

Now in the business internet subscribers, the number of people subscribed to business broadband also increased. It was 102 thousand subscribers in the year 2011 followed by 108 thousand subscribers in the year 2012. In the year 2013, there was a huge increase in the number of subscribers as it reached to 117 thousand subscribers which was then increased to 121 thousand subscribers in the year 2014. This increase in the number of subscribers means that people were attracted to the quality and the pricing of the internet. Furthermore, there could have been promotions that might have encouraged people to take the deals along with the internet.

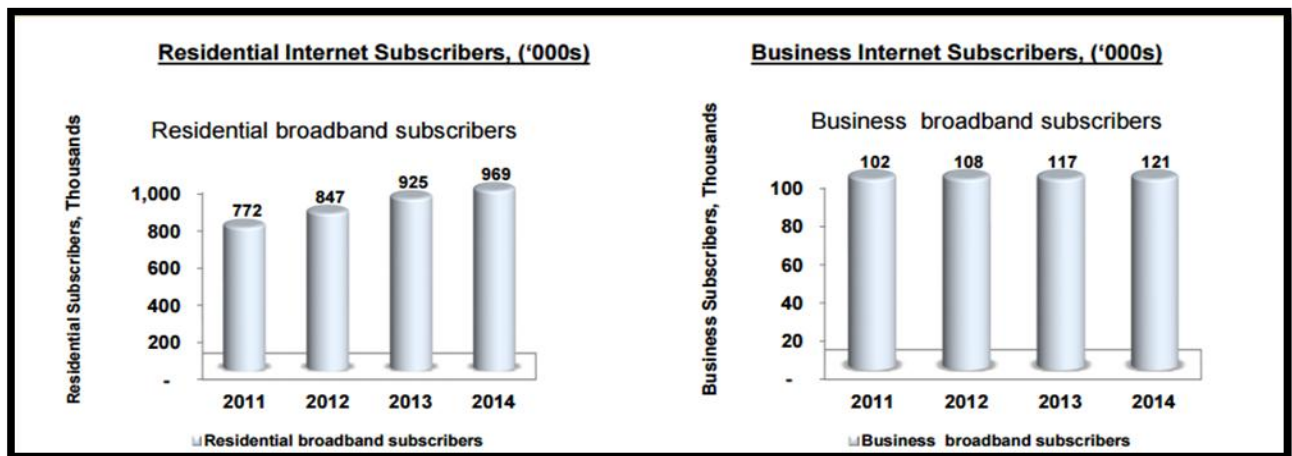


Figure 12: Graph represents Residential Internet Subscribers and Business Internet Subscribers

The percentage of the subscriber growth is displayed in the table below. Based on this table, the residential broadband subscriber growth increased to the 10% in the year 2011-2012. Between

the years 2012-2013, the subscriber growth seems to have decreased to 9.2% and by the end of 2014, the subscriber growth decreased to just 4.2% almost half of what it had been in 2012-2013. The subscriber growth in the business broad service was 6% between the years 2011-2012. There was an increase in the subscriber growth as the number of subscribers in the business broadband increased to 8.3%. However, the number of subscribes dropped between the years 2013-2014 dropped to 3.4%, almost half of what it had been between the years 2013-2014.

Service	Subscriber growth 2011 - 2012	Subscriber growth 2012- 2013	Subscriber growth 2013- 2014
Residential broadband	10%	9.2%	4.7%
Business broadband	6%	8.3%	3.4%

Figure 13: Subscriber growth in Residential broadband and Business broadband

Distribution of Residential broadband subscribers by internet speed between the years 2011-2014 is shown if the graph below. In the year 2011, the percentage of people using 256 Kbps was 17% and by the end of the year 2014, the percentage of the people using 256 kbps dropped to 2%. The percentage of people using 512 Kbps was 20% in the year 2011 which dropped to just 5% by 2014. The same scenario goes for the people using 1 Mbps, 2 Mbps, 3 Mbps and 4 Mbps as the percentage of each drops from the original percentage in 2011. On the other hand, the percentage of residential broadband subscribers for above 4 Mbps increased from just 47% in the year 2011 to as high as 75% in the year 2014. This implies that majority of the people were not satisfied with the speed of the internet, they wanted their internet speed to be higher so as one can see in the graph, the percentage of people using speed less than 4 Mbps dropped and they opted to go for speed higher than 4 Mbps. This can also mean that the price and quality of the internet speed

more than 4 Mbps was just a little more expensive which is why the percentage graph of 4 Mbps greatly increased from just 47% in the year 2011 to 75% in the year 2014.

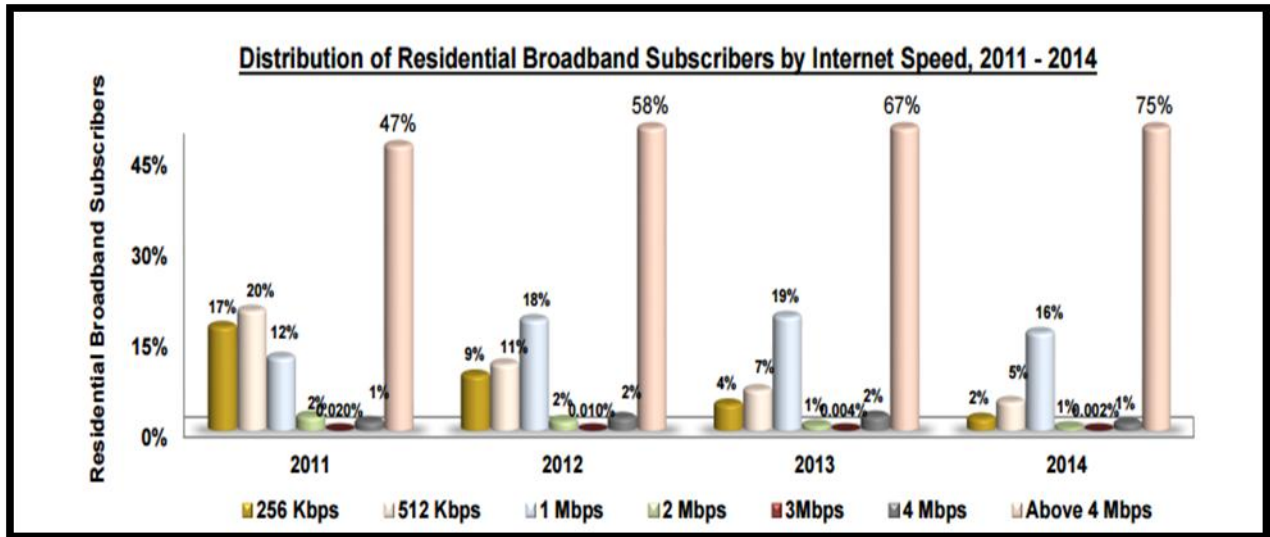


Figure 14: Percentage of the people using different internet speed

As you can see from the distribution of business broadband subscribers by internet speed graph, the percentage of people using the 256 Kbps, 512 Kbps, 1 Mbps, 2 Mbps, 3 Mbps and 4 Mbps in the year 2011 drastically drops by the year 2014. On the other hand, the percentage of people using internet speed more than 4 Mbps increased as people using internet speed of anything less than 4 Mbps chose to increase their internet speed hence the rise in the percentage of people using internet speed of more than 4 Mbps.

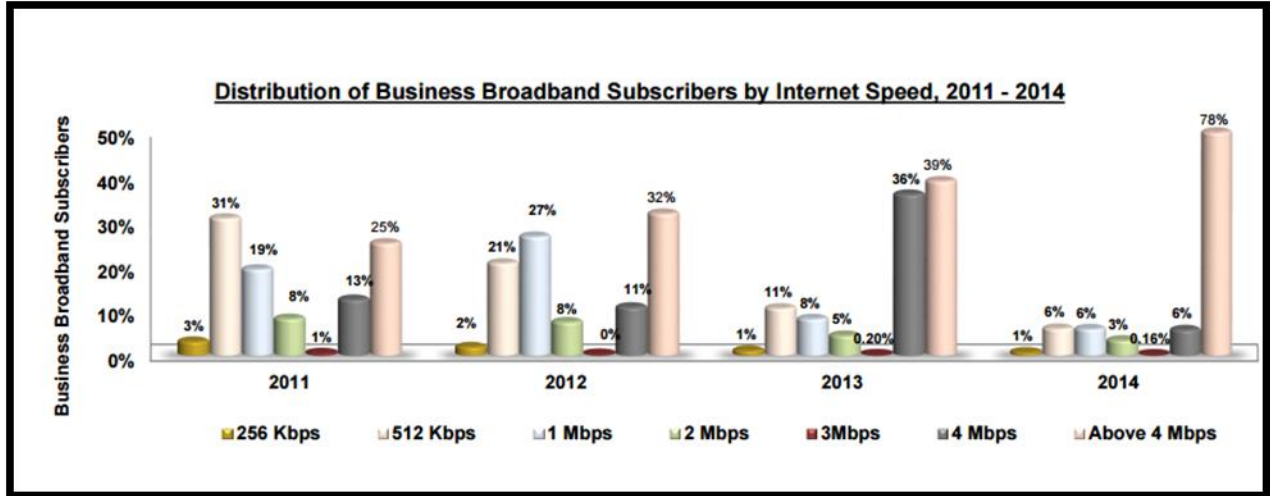


Figure 15: Percentage of people using different internet speed for Business

Chapter 4

Data Analysis and Findings

5.1. Questionnaire response

The questionnaires responses that were received consisted of 33 responses. It was found that out of 33 distributed questionnaires, there were 33 responses which rated it as 100%. The responses that were received were very high before which all the questions were explained so that the employees answering the questionnaires had no difficulty in answering them. However, if there was any difficulty in understanding the questions, the employees could ask for clarification.

5.2 Analysis of demographic Data

In this section of thesis, the analysis and results of the questionnaires are taken into account and are analyzed. In the first part of the survey, the demographic details of the employees along with the sector they work in are taken into account. Some of these details are gender, job title, age, marital status, how long the employee has been working in the organization etc. Furthermore, based on the above details, seven main issues were also addressed which included factors such as championing behavior, problem solving methods, the level of innovation that was helped to be achieved, project complexity, influence tactics, overall project performance along with their decision making authority.

The figure below illustrates the responses to the questionnaires. Through the questionnaire, it was found that around 46% of the respondents worked in the organization for 6-10 years. 18% of the respondents worked in the organization for less than 5 years, 18% have worked for 16-20 years in the organization. 10% of the total respondents worked for 21 or more years followed by just 8% of the respondents worked for the 11-15 years in the organization.

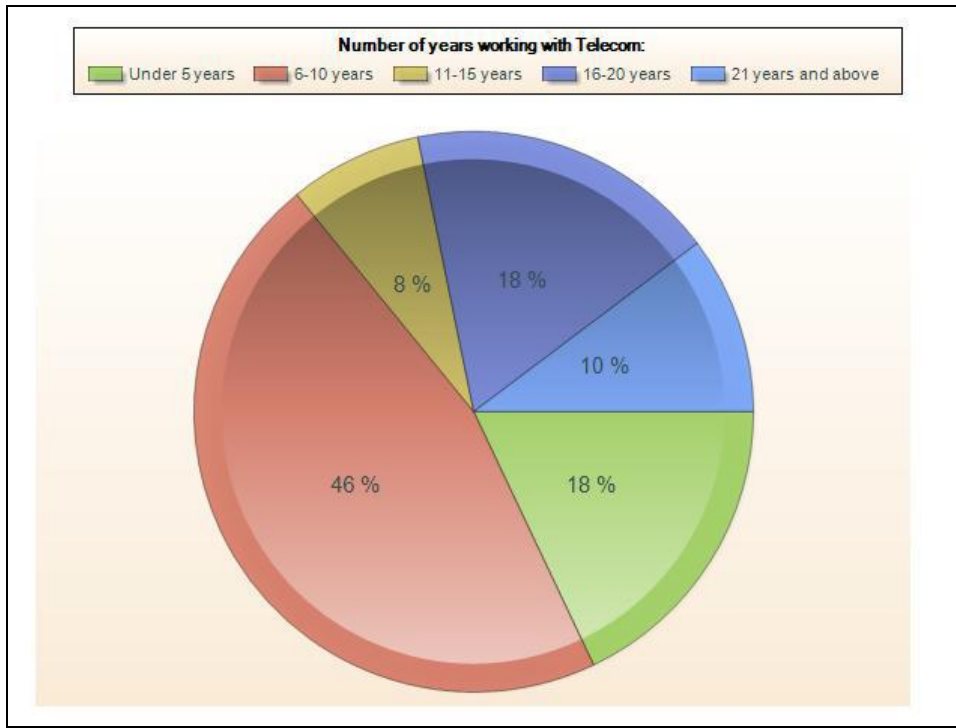


Figure 16: The number of years the employees worked in the organization

The other element to be presented in the demographic detail is the number of projects that each manager can handle. The figure below shows that 44% of the respondents are able to handle 1-10 projects. 21% of the respondents can handle 11-20 projects and the remaining projects are capable of handling more than 41 projects.

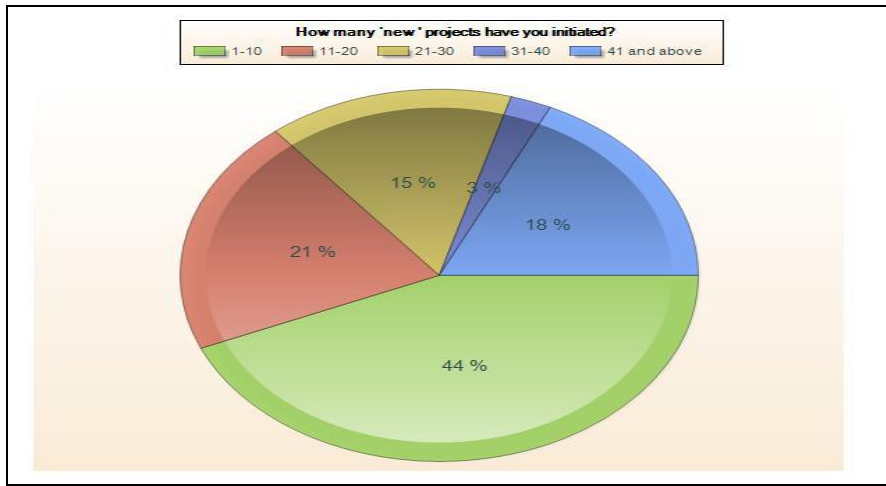


Figure 17: Shows the number of projects the respondents can handle

Figure 18 shows the forth elemental than can be presented in the demographic detail which is how much the respondents believe in the whole idea of innovation and support each other. The figure shows that 21% of the respondents push their respondents for more innovation. On the other hand, around 62% of the respondents “fairly enough” push their team members towards innovation while just 18% of them just “sometimes: push their team members to work towards innovation.

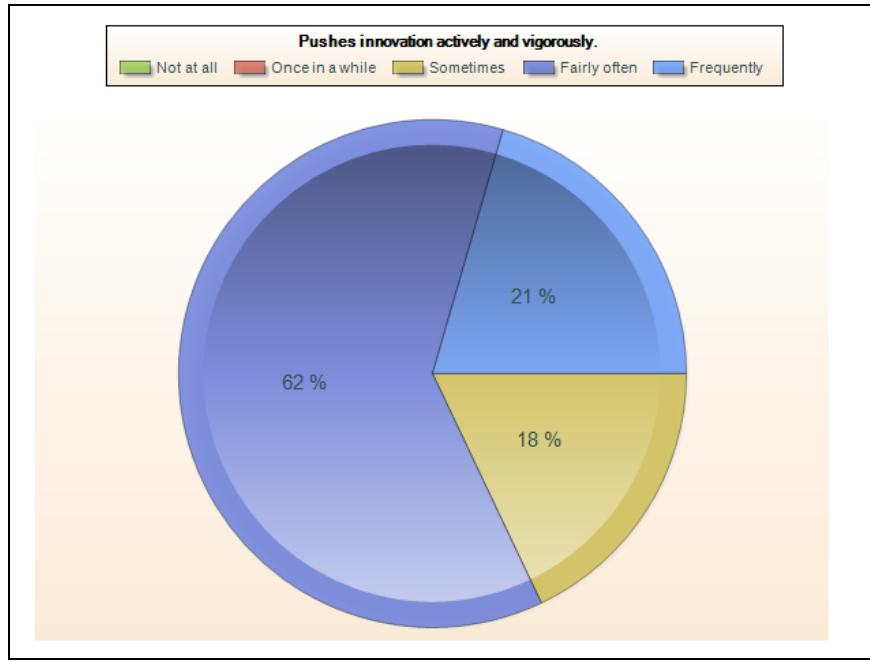


Figure 18: This figure shows how much the employees push their team mates towards innovation.

Another element that can be presented in the demographic detail is that of the project manager and how he/she seeks different perspectives in solving problems. This can be represented in the figure shown below. As one can analyze from the figure below, it has been found that a majority of the respondents, about 85%, are using different techniques and approaches in order to solve their problems. While only 15% of the respondents resolve to using routine and traditional approaches in order to overcome any obstacle they face in their projects. This is expected because not all people like to find different approaches to overcome an obstacle.

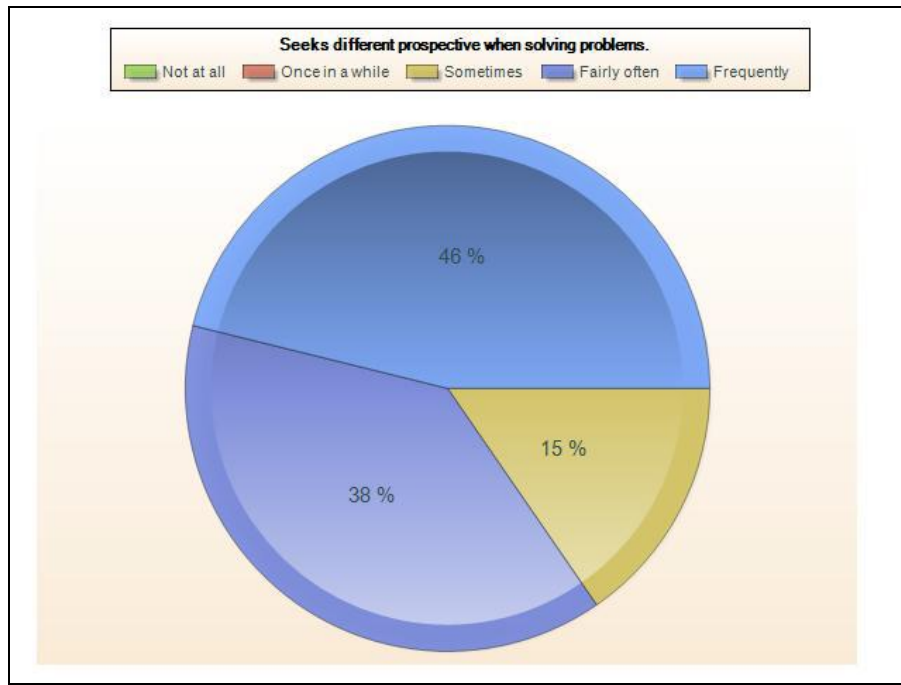


Figure 19: Project Manager Style of resolving problems that occur during a project.

Figure 20 shows the influence tactics that the project manager uses towards innovation. Through the pie chart, it has been found that 51% of the managers frequently write plans to justify innovation ideas whereas just 8% of the managers “almost always” write plans that justifies innovation ideas. 10% of the total just “seldom” write innovation ideas and 31% of the total respondents just occasionally write a plan that justifies innovation ideas.

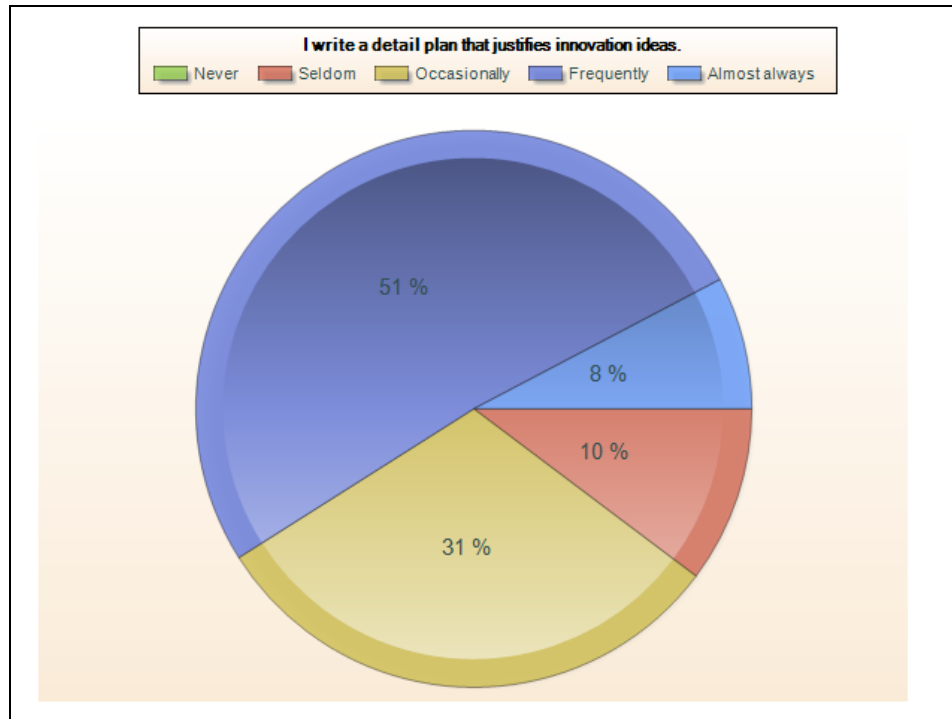


Figure 20: Influence tactics that Project Managers use towards innovation

Furthermore, the next element to be present in the demographic detail is the level of innovation in the projects that are handled by the project managers. Figure 21 shows that 61% of the respondents strongly disagree that the projects they are handling did not create new ideas or service their customers. While 13% of the respondents agree that the projects that they have handled did not introduce any innovation ideas and these projects have been similar to the ones they have done before. On the other hand, 18% of the total respondents have found to be neutral and 5% of the total respondents strongly agree that no idea of innovation or anything close to it have been performed on the projects that they have been handling.

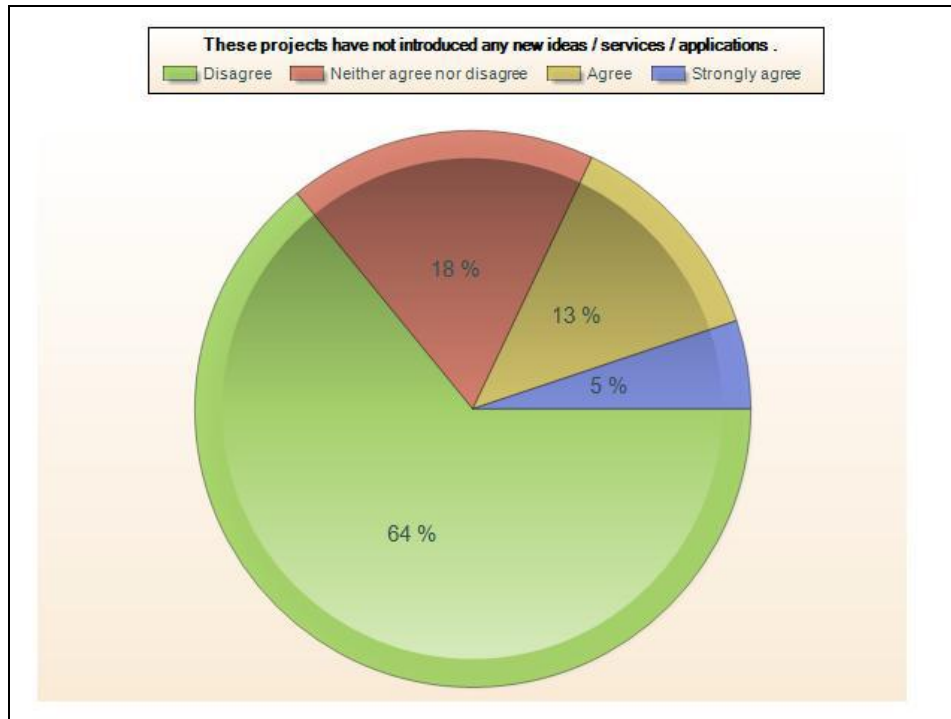


Figure 21: Level of Innovation in the Projects

The next element in the demographic detail is the project performance. Figure 22 illustrates that 80% of the respondents agree that the projects that they have worked on has more room for development. While just 16% of them agree that the projects that the projects they handle help them to learn new methods and to work on their mistakes. On the other hand, 18% of the respondents “Strongly agree” that there are able to continuously benefit from the projects.

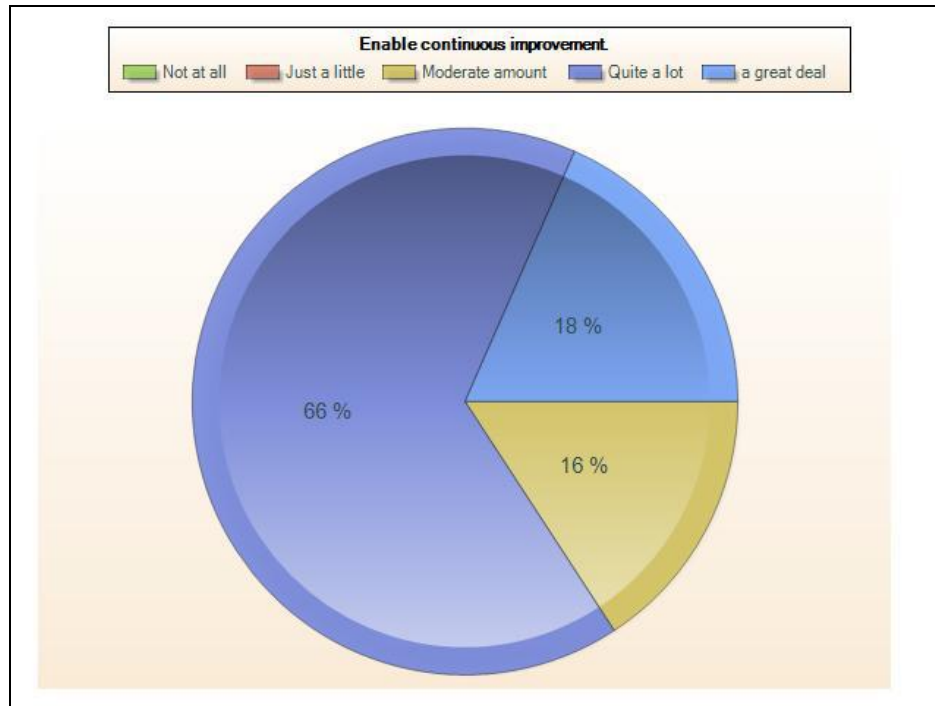


Figure 22: Projects allowing continuous improvements.

The last element to be presented in the demographic detail is the project complexity. Figure 23 shows that more than 50% of the respondents believe that the projects they are handling are advanced when looked at them from technical perspective and that they require very specialized contractors for them to handle. However, on the other hand 18% of them believe that the projects that they are handling are complex but only to a certain limit whereas, 26% of the respondents believe that the projects that they are handling require no specialized contractors for them to be completed.

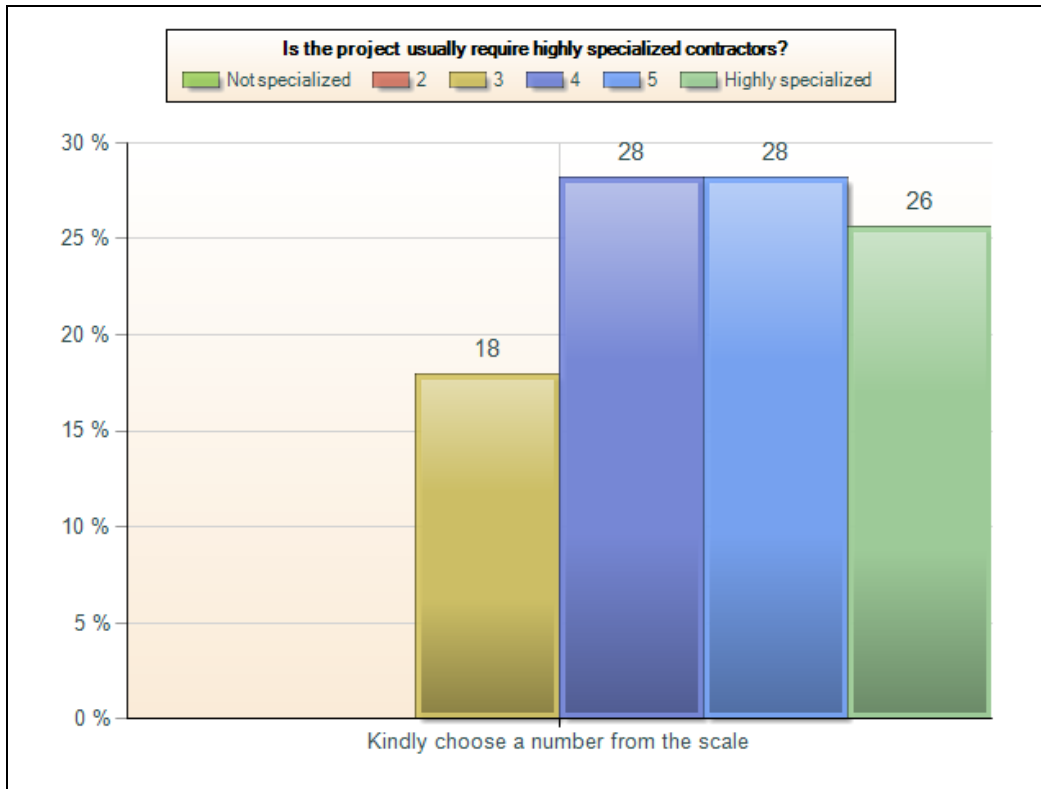


Figure 23: Project Complexity

5.2.1 Demographic Profile of Customers:

The participants that were taken consisted of 119 females and 81 male consumers. The mean age that was calculated was 29.6 (SD = 13.98). 20 of these people were found to be students while 180 of them were adults. 51.5% of these 180 people worked in private sectors while 31% were government servants and the remaining 7.5% were self-employed. In terms of ethnicity background, it was found that 53.7% of these people were Malay while 25.5% were Chinese and the remaining 21% were Indian participants.

5.2.2 Reliability

Based on Cronbach's alpha reliability test that was done on the independent variables to determine the reliability of the instrument that was used. Nunnally suggested 0.70 as the acceptance of the reliability of the test and the Alpha values measured to be between 0.832 to 0.929 making the test to be reliable as shown below.

Service Quality Dimensions	Cronbach's Alpha	
	Expectations	Perceptions
Tangibility/ Physical aspects		
Customer service counter is well-equipped with up-to-date facilities e.g. reload/top-up machine, free WIFI.		
Physical layout of equipment and furniture are comfortable for customer interacting with staff.	0.894	0.929
Staff are well-dressed and appear neat.		
Material and information associated with the service (e.g. promotional brochure) are visually appealing at the customer service counter.		
Reliability		
When the service provider promises to do something by a certain time, services are delivered as promised.	0.848	0.839
When I face problems, the service provider staff is sympathetic and reassuring.		
The service provider staff is dependable		
The service provider staff keeps the transaction records accurately.		
Responsiveness		
The service provider staff tells the customer exactly when services will be performed.		
I receive prompt service from the service provider staff.	0.879	0.836
Service provider staff is always willing to help the customers.		
Service provider staff does not appear to be too busy in responding customer requests.		
Assurance		
I can trust the service provider staff.		
I feel safe when conducting business with the service provider staff.		
The customer service staff is polite.	0.835	0.832
Customer service staff seems to have received adequate supports from the service provider to do their job well.		
Empathy		
The service provider staff gives me individual attention.		
The service provider staff knows what I actually want.		
I have interest in the services provided by the service provider.	0.840	0.855
The service provider operates according to the business hours that are convenient to most of the customers.		

Figure 16: Reliability table

5.2.3 Gap Analysis

Furthermore based on a t-test that was conducted, it was found that when the expectations and perception was compared based on the five service dimensions (staff reliability, responsiveness, assurance, physical aspects and empathy) the TSP was found to be in a significant gap which is $p < 0.01$. The table below shows the largest mean difference that exist between perception and expectation and it was found to be -0.31. On the other hand, the staff responsiveness was found to have a mean difference of -0.28 from the assurance perspective. The smallest mean difference was found to be between the expectations and perception of the staff reliability which was calculated to be -0.15.

Service Quality Dimensions	Expectations		Perceptions		Gap (P-E)			***Sig.
	Mean	S	Mean	S	Mean	S	T	
Tangibility/ Physical aspects	4.67	0.57	4.46	0.67	-0.22	0.66	4.74	0.000
Reliability	4.38	0.72	4.23	0.63	-0.15	0.74	2.83	0.005
Responsiveness	4.59	0.61	4.31	0.62	-0.28	0.68	5.83	0.000
Assurance	4.61	0.57	4.30	0.61	-0.31	0.65	6.84	0.000
Empathy	4.57	0.72	4.31	0.61	-0.28	0.72	5.00	0.000

Figure 17: Gap Analysis Results

In today's world, more and more telecom consumers are demanding a consistent experience across every part of the world where they can contact their operator. In order to satisfy the customer, it is very critical that the customer is given the best services by their service operators. One way to do is by providing a true multichannel strategy which will maximize the efficiency between the customer and the service provider. Operators that are looking to develop such a strategy must put four points into consideration:

- Firstly, subscribers must be segmented according to their spending patterns, channel preferences, consumption habits and interests in the operator's products and services.
- Once the customer segments have been identified, a channel strategy can ensure a consistent experience- and maximum profitability- should be set for each one. However, this strategy must be flexible so it can accommodate each segments life-cycle stage, without facing any problems which channel each of the many segments prefers.
- Objectives and incentives must be aligned on all channels. Each of the channels must focus on providing several commercial activities such as selling devices and services in shops, and less complicated products so they don't face any troubles when they have to sell. On the other hand, free lancers can be rewarded for generating sales leads for other channels. Proper alignment will not only make the customers happy but it will also maintain good relationships among the channels.
- A powerful customer relationship management must be developed in order to provide a comprehensive view of every customer across all channels, allowing the operators to improve their strategies. On the other hand, back-end systems must be implemented in order to support the ongoing needs of each of the channel.

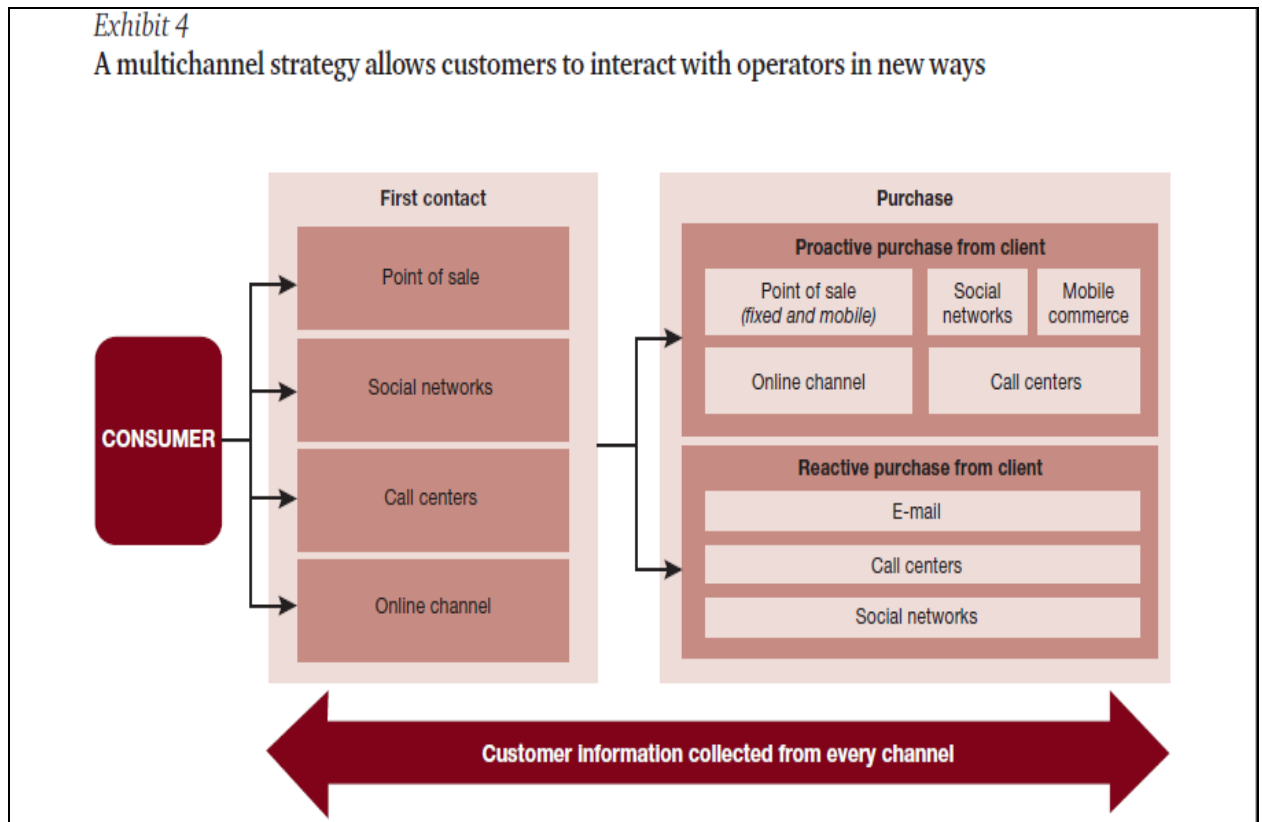


Figure 24: A multichannel strategy

5.3 New ways of selling

For too long, telecom service providers have given more priority to their profitable traditional channels over creating new channels that could serve more customers, increase profitability and boost interactions. However, it is important that telecommunication service providers to rethink their ways of approach in order to establish their commercial footprint. There are three new channels that offer ways in order to increase the profit of the service provider.

New digital channels: Operators must come to terms with new channels like social media, which already proven to be a force in wide range of other business and an important way of interacting with consumers. Many companies use social media as a way to promote their

business, gain new customers through contacts that are initiated by consumers, and it also has great potential to boost customer care through different sub channels such as videos, blogs, social communities and live chats. It is very important for the operators to prioritize this channel, determine the best strategy for the usage of sub channels and define the mix of sales, support for each and information.

Mobile commerce: Mobile commerce or m-commerce as it is known is no longer just online shopping via mobile phones. Customer experience can now be improved through technologies such as event- and location-based sales. It is emerging as a means of interacting with current and potential customers through purchasing process especially if mobile operators want to develop and capture this opportunity. However, only a few mobile operators are making use of this m-commerce despite having access to subscribers' movements and their usage patterns.

Low-cost channels: A variety of low-cost channel have the potential of becoming very powerful tools for not only to gain additional capillaries in areas where there is point-of-sale but other traditional outlets that are not profitable too. Some of these low-cost channels include the following:

Direct mixed points of sale: Operates can increase their control over mixed points of sale-nonexclusive retailers where their products represents a low percentage of revenues. They are able to create a better balance by minimizing or cancelling distributors and intermediaries at these points of sale.

Freelancers: Operators in LEDC (low economically developed countries) could use independent door-to-door salespeople, who will be responsible for customer sales, subscriber registration and activation of services. These freelancers can be used to promote business by being of providers of basic services which include the activation of SIM cards and sell recharge cards for prepaid phones to lower and middle class people, inform people about the latest products that are being provided by the service providers, keep them updated about service offers or different data packages. However, the potential of this model can be furthermore increased with the use of social media.

Street sales: Operators could use a fleet of small vans and designate them to different locations with “sporadic high traffic” where a store would not be very profitable. These vans could be used to cover remote routes and together could sell recharge cards or provide balance for customers who need it. However, intensive and detailed route planning, as well as the ability to track consumer contacts is very essential if they want to reach their maximum potential.

Chapter 5

6.1 Conclusion:

In conclusion, it is very important for any organization to have a diverse workforce. Business have started to recognize diversity in the workplace as a strategy that not only maximizes productivity, but it also creates creativity and loyalty of the employees while they assist multi-national clients or customers. This is very important because a diverse workforce not only enables the organization to understand their customers more but it also enables them to make their customers satisfied. The client or customer can talk to the employees in any language that he desires. The customer is not restricted to a certain language but by talking about his issue or the things he want from the service provider, he/ she can get it done. The purpose of this research was to explore how heterogeneity had an effect in the telecommunication sector. By taking work diversity factors such as age, culture, gender etc, and different circumstances such as how they will affect the decision that individuals take were analyzed. Furthermore, also what benefits diverse workforce brings to the table is also analyzed. Apart from this it was found that not only does a diverse workforce bring different language but it also helps in employees to voice different opinions that can be used in the firms in order to enhance their products. These ideas can be used to create innovative ideas.

The different generations of innovation in the telecommunication sector was analyzed and how the market has moved from 1G to 2G followed by 3G and now its on 4G. This was followed by the research objective and in this section it was analyzed how UAE telecommunication sector has been innovative and how it has been supporting its customers' demands by providing them the service that they need. This was followed by the different methods of approach the telecommunication sector has taken in order to create innovative ideas. Not only this but through this thesis it shows how the telecommunication sector advanced from just telephone subscribers to mobile subscribers, internet subscribers and international subscribers.

Furthermore, through this thesis objectives such as determining how decision making plays a critical role in projects along with the different challenges that the organization must overcome is

also analyzed. The second objective that was analyzed is how diversity can enhance or hinder effective decision making was also analyzed. It was found that there are certain problems when an organization has a diverse workforce. Starting with communication problems that can occur followed by gender issues and cultural problems. However this can have a positive influence or a negative influence. It is the job of the project management to make sure that things don't go out of the way and that he is there to guide his employees towards the path that he wants them to follow. The job of the project management is very vital for a diverse workforce to work properly. Few advantages of a diverse workforce is then brought to view such as how diversity will allow the employees to come up with a variety of solutions for the project leader to consider and this gives him a variety of solutions to pick from. Not only this but these whole variety of solutions can also help the organization to come up with innovative ideas that they can introduce for their customers. On the other hand if the project leader does not have the proper techniques or isn't capable of running a diverse workforce then the organization will be facing a lot of difficulty. So the importance of a capable project leader is outlined.

Apart from this, through the growth of the telecommunication sector, the innovative ideas of the organization have been evaluated. Starting with the number of fixed lines from the year 2011 to 2014. As it can be seen in the evaluation section, it has been seen the number of membership has been on the rise showing that the customers are satisfied with the services the service provider is providing. The two revenues of the service provider in the UAE which are Prepaid Revenue and Post Revenue have been also analyzed. By using information from the graph, it has been found that the number of membership in the organization has also increased. Other aspects such as the total mobile revenues followed by what effect some of the innovation ideas had on the older has also been looked on. By introducing internet and new services that the organization has offered, some older innovative ideas been on the fall. Some of these older services such as SMS or MMS have been becoming less popular because of other applications that have been collaborated with the service such as Facebook, Whatsapp, Black Berry messenger etc.

6.2 Recommendations:

Some of the most useful recommendations have been listed below:

- Focusing more on the development of leadership in the project manager role.
- Integrating project manager leadership in the innovation process in the initial stages of innovation itself.
- Encouraging employees to come up with new innovative ideas encouraging continuous learning programs.
- Rewarding the employees when they come up with innovative ideas in this way it encourages them to work harder.
- Adoption of successful innovation method that are used by multinational corporations.
- Upgrading continuous learning programs by the firm so that their employees don't stop learning and keep updated with the technology and different innovative ideas that happen in the modern world.
- Using more samples and more surveys so as to be more certain of the feedback that they receive from their customers.
- Sampling to be taken in more areas and categorized so that the needs of each people in the area are to be analyzed and dealt with separately.
- Different surveys have to be applied to different companies so that they can come up with different innovative ideas that can keep the companies satisfied in the long run.

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6.4 Appendix

Profile of the company/organization			
1. Main activities:			
<input type="checkbox"/> Telecom	<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Data Center	<input type="checkbox"/> IT
<input type="checkbox"/> Value Added Services (VAS)	<input type="checkbox"/> Other (specify)		
2. Number of employees:			
<input type="checkbox"/> Under 20	<input type="checkbox"/> 21 - 50	<input type="checkbox"/> 51 - 100	<input type="checkbox"/> 101 - 300
<input type="checkbox"/> 301 - 500	<input type="checkbox"/> 501 - 1000	<input type="checkbox"/> Over 1000	
3. Scope			
<input type="checkbox"/> national	<input type="checkbox"/> continental	<input type="checkbox"/> global	
4. How important is IT to the company?			
<input type="checkbox"/> strategic importance	<input type="checkbox"/> very much used in primary business processes	<input type="checkbox"/> very much used in supporting administrative work	
5. Organizational experience in using IT, in terms of number of years			
<input type="checkbox"/> 1 - 5	<input type="checkbox"/> 6 - 8	<input type="checkbox"/> 9 - 12	<input type="checkbox"/> more than 13

Figure 25: Questionnaire for the profile of the Organization

Profile of the Telecom champion

1. Education background:
 Secondary school Diploma university level Master

2. Technical knowledge of computer systems and Telecom:
 majored in computer science/Telecom took Telecom courses as elective picked up Telecom knowledge in the course of work

3. Number of years working with Telecom:
 Under 5 years 6 – 10 years 11- 20 years 21- 30 years Over 30 years

4. Your age:
 18 - 25 26 – 30 31 - 40 41 – 50 Over 50

5. Gender:
 Male Female

6. To whom do you report?
 Engineer Senior engineer Manager Senior Manager
 Director Senior Director

7. Title of your job
 senior manager manager senior executive executive
 fresh graduate non executive

Figure 26: Questionnaire for the Telecom Champion

	Statement	1 never	2 seldom	3 occasionally	4 frequently	5 almost always
Influence Tactics						
Please indicate how often you use the following strategies in your work on these projects						
1	I provide evidence to show that proposed innovation is likely to succeed					
2	I write a detail plan that justifies innovation ideas.					
3	I explain why the requested assistance from the top management is important for innovation					
4	I use logic to convince project parties.					
5	I carefully explain to the project team members the reasons for my request					
6	I tell what I am trying to accomplish and ask others if they know a good way to do it.					
7	I encourage project team members to express any concerns or doubts about the innovation proposed.					
8	I involve the project team members in the planning / decision making process so that he or she will do what I want					
9	I describe a proposed task or activity with enthusiasm and conviction , that it is important and worthwhile.					
10	I appeal to the team member's values , ideals and aspiration when proposing new ideas.					
11	I obtain the support of my team members to back up a plan or proposal.					
12	I obtain the support of my co – workers to persuade others to provide assistance.					
13	I get help in persuading another person from one of his / her project team member.					

Figure 26: Influence Tactics Questionnaire

	Statement	1 Strongly disagree	2 Slightly disagree	3 Not sure	4 Slightly agree	5 almost Strongly agree
Problem-Solving						
Please indicate how often you use the following strategies in your work on these projects						
1	Most people think that I am objective and logical					
2	Most people would say that I am emotional and rather motivating					
3	Most people believe that I know the details of my job and do it very accurately					
4	Most people agree that I am a complex and intellectual person					
5	I tend to focus on immediate problems and let others worry about the distant future					
6	I try to please others and need occasional praise myself					
7	When I face a problem, I try to analyze all the facts and put them in systematic order					
8	I'm more interested in long-range implications and am often bored with minor here and now details					
9	I'm usually more people oriented than task oriented					
10	Before I put energy into a project, I want to know what's in it for me					
11	I normally solve problems quickly without wasting a lot of time on details					
12	When I have a job to do, I do it, even if others' feelings might get hurt in the process					
13	I get bored with routine and prefer to deal with new and complicated challenges					
14	I'm a pretty good judge as to how others feel about problems					
15	I don't let problems upset me, no matter how difficult they are					
16	I like to do things that I do well, but I'm not comfortable trying to learn new skills					
17	I prefer harmony in a work group—otherwise efficiency suffers					
18	I really enjoy solving new problems					
19	I am a quick learner, but I don't like theoretical, futuristic concepts					
20	When necessary, I have no trouble making tough, hard-nosed decisions					

Figure 27: Questionnaire regarding Problem Solving

	Statement	1 strongly disagree	2 disagree	3 neither agree nor disagree	4 agree	5 strongly agree
Level of Innovation						
In your experience of working on these projects , to what extent do you agree that the following statements are true descriptions of the work in these projects ?						
1	These projects are little bit behind in utilizing the most adequate equipment and materials.					
2	These projects have not introduced any new ideas / services / applications .					
3	These projects are very behind in the application of new ideas in the planning , organizing and management of tasks / activities .					

Figure 28: Level of Innovation Questionnaire

	Statement	1 not at all	2 once in a while ,	3 sometimes	4 fairly often	5 Frequently
Championing behaviour						
Describe the behaviour of project manager in promoting new ideas and innovative work						
1	Seeks out new technologies , process , techniques , and / or product ideas.					
2	Maintain a network of contacts.					
3	Seeks different prospective when solving problems.					
4	Gets other to look at problems from different angles.					
5	Challenges the way it has been done before as the only answer.					
6	Expresses confidence in what the innovation can do and achieve.					
7	Enthusiastically promotes the advantages of new ideas and solutions.					
8	Pushes innovation actively and vigorously.					
9	Shows optimism about the success of innovation.					
10	Shows tenacity in overcoming obstacles.					
11	Accepts responsibility for the results.					
12	Gives top priority to getting results.					
13	Co ordinates and brings together the key individuals					
14	Gets the necessary resources (people , time , dollar) to implement new ideas , technology and / or solutions.					
15	Backs the people involved.					
16	Builds trust.					

Figure 29: Questionnaire regarding Champion behavior

	Statement	1 not at all	2 just a little	3 moderate amount	4 quite a lot	5 a great deal
Project Performance						
To what extent do you perceive the projects have achieved the following outcomes ?						
1	Facilitate learning within the projects .					
2	Enable continuous improvement.					
3	Enhance client satisfaction.					
4	Enhance the image of the company.					
5	Enable competitive packages.					
6	Retain talents with the company.					
7	Finish projects on time.					
8	Finish project within budget.					
9	Promote better safety practices.					
10	Increase level of productivity on these projects .					
11	Lead to improve project team satisfaction.					
12	Enable and motivate innovation .					

Figure 30: Project Performance Questionnaire

	Statement	1 virtually no influence	2 little influence	3 some influence	4 a good deal of influence	5 a very great deal of influence
Decision Making Authority						
In your experience of managing and directing work , how much influence would you say you have had in decisions made about the following						
1	The sequence of work activities					
2	The organization of work of your staff and manpower.					
3	The use of materials and equipments in the project's site.					
4	Modifying or changing existing design and drawings					
5	Modifying or changing existing cost plans.					
6	The recruitment of workers employed directly by your own firm to this project.					
7	The selection criteria of subcontractors.					

Figure 31: Decision Making Authority Questionnaire

Project Complexity							
A) What is usually the level of design complexity in the project(s) that you are handling ?							
Not Complex	1	2	3	4	5	6	Highly Complex
B) What is the level of telecom complexity?							
Not Complex	1	2	3	4	5	6	Highly Complex
C) Is the project(s) similar to others which have been executed previously ?							
No Similar Projects	1	2	3	4	5	6	Nearly All Those Types
D) Is the project(s) that you are handling usually technologically advanced?							
Not Advanced	1	2	3	4	5	6	Highly Advanced
E) Is the project usually require highly specialized contractors?							
Not Specialized	1	2	3	4	5	6	Highly Specialized
F) What percent of the project will contain <i>repetitive elements</i> ?							
%	0 – 10	11 – 20	21 - 30	31 - 40	41 - 50	> 50	%

Figure 32: Project Complexity Questionnaire