
A Glance on Service Innovation Scenario:

Case of Leading Telecommunication Companies in Malaysia

Seyedeh Khadijeh Taghizadeh¹, K. Jayaraman², Syed Abidur Rahman¹, Shaghayegh Maleki Far³

¹ School of Management, Universiti Sains Malaysia,
taghizadeh.nastaran@gmail.com

² Associate Professor, Graduate School of Business, Universiti Sains Malaysia,

³ Faculty of Management, Universiti Teknologi Malaysia

Abstract:

Malaysia has emerged as Asian dragon in context of overall economic development, where telecommunication sector is playing pivotal role. The main purpose of this paper is to review the state of innovation of the two top innovative telecommunication companies in Malaysia. With the attempt to explore and understand the innovation scenario of these two companies, the paper mainly sketches out the activities with regard to service offerings for the dynamic environment and customers. Thorough literature review has been conducted along with accruing information from the company's annual reports and website. The paper stands alone as comprehensive review of service innovation of the two most innovative companies. It is however, indeed for the companies to understand the diverse paths of service innovation, which may facilitate to attain competitive advantageous position.

Key words: Innovation, Service innovation, Telecommunication, Malaysia.

Paper Type: Review paper

1. Introduction

Telecommunication industry is considered as a platform for overall development of any country. This industry is significantly contributing to flourish the society in general and economy in particular. Through the amazing innovation initiatives, the Telecommunication industry has literally changed the human civilization, its culture, its pattern of living. From a developed nation to under developed country, the telecommunication industry has printed its footstep through remarkable innovation. The successful business in this industry remains alert to take on new and retain the existing consumers. Malaysian telecommunication industry is mostly innovation driven as it focusses on consumer expectations and timely demand.

In a developing country like Malaysia, the telecommunication industry is known as a key factor in solving the global challenges such as climate change, poverty, health care and especially education (Market Watch, 2012). Among these, economic contribution seems to have greater impact on the development of the country. According to data from Economic Transformation Programme (2013), in Malaysia, the telecommunication industry has done well among East Asian countries in the 2009 which contribute 4.9 per cent to Malaysia's GDP, (Figure 1).

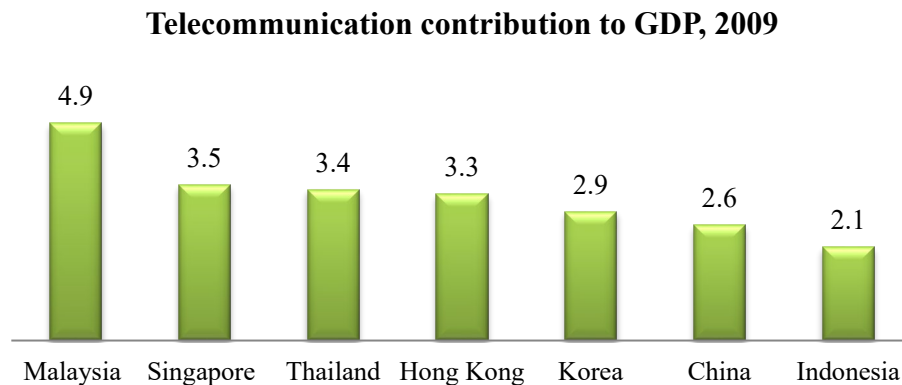


Figure 1: Telecommunication contribution to GDP, 2009
Source: Economic Transformation Programme (2013)

In terms of mobile communication usage, there has been tremendous growth in Malaysia, ranked as the second largest mobile user among Southeast Asia after Singapore. However, within telecommunications sectors in Malaysia, DiGi and Maxis are recognized as two top innovative companies (Pawanchik, Sulaiman, & Zahari, 2011). These two top innovative companies

contribute to the GDP tremendously. According to data from Pawanchik et al. (2011) Maxis ranked 8th position among Malaysia's top ten Public Listed Companies (PLCs) by the size of the revenues in 2010.

DiGi has more innovative project and has the top position in innovation ranking compared to Maxis, however Maxis over perform DiGi in terms of the number of consumers, revenue, market share, subscribers, stakeholders and the coverage area (Annual-Report-Digi, 2011; Annual-Report-Maxis, 2011). DiGi is a foreign subsidiary while Maxis is a local Malaysian company. From the comprehensive views, these two companies are contributing to the economic growth of Malaysia. To be more specific, these top two market leaders carry 66.2 percent of total telecommunication market share together (Annual-Report-Digi, 2011; Annual-Report-Maxis, 2011), and are playing the role as 'catalyst' to the growth of the service sector, building up an innovation-led economy, and creating value in the Malaysian telecommunication industry. From many success stories of the telecommunication industry around the world, it is clear that service innovation, strong frequency of network coverage, internal organizational culture, consumer retention are essentials for telecommunication business success and are the drivers of successful business in a competitive market (Taghizadeh, Jayaraman, Ismail, & Iranmanesh, 2013). The situation of these two companies encourages interest and queries on how Maxis over perform DiGi in terms of market share, while DiGi considered as the top innovative company. It could be suggested that DiGi is having less market share compared to Maxis due to lack of flexibility in customization. Before investigating the in-depth understanding of DiGi and Maxis, it is important to have a glimpse on these two companies.

1.1 DiGi and Maxis Services in Malaysia

DiGi Telecommunication Sdn. Bhd. is the first digital mobile communications service provider operating in Malaysia since 1995, which operates based on a fully digital cellular network. DiGi is one of the successful multinational companies in Malaysia, where Telenor ASA of Norway owns a 49 percent share of the company (Annual-Report-Digi, 2011). Telenor Group is one of the world's major mobile operators with close to 150 million mobile subscriptions. Around 31,000 employees from worldwide are investing their best effort in the company, resulting to gain NOK 98.5 billion of revenue in the year 2011. Having 155 years of experience in Telecommunication, it has widened its operation globally in 11 markets. However, telenor

group (2012) claims the greatest success in terms of innovation is built on combining the global expertise with local market knowledge that creates value for different segments. DiGi, as a multinational subsidiary, is continuously engaging itself to the innovation, blending the foreign and local expertise. On the other hand, Maxis, by ownership structure is completely local company.

Maxis Communications Berhad has led telecommunications companies in Malaysia operating since 1995 (Sustainability-report-Maxis, 2011). The process of the establishment began during the 1993 through an awarding telecommunication license to Binariang Sdn Bhd for providing voice telephone & communications services. In 1999, Maxis changes company name from Binariang Berhad to Maxis Communications Berhad. On the 27th April 1995, Maxis started its operation in the Malaysia as a wholly locally owned telecommunication company. The word 'Maxis' contains interesting stand-view as X in the center of the word acts as the linchpin of the axis, between Ma-laysian and the Sys-tems the company provides. With some realistic and philosophical view, the company was named after and eventually it has become the Malaysia's biggest integrated communication service provider having market share of 39.1 percentages in the year of 2011. Since its inception, it has several subsidiaries that are Maxis Mobile Sdn Bhd, Maxis Broadband Sdn Bhd, Maxis International Sdn Bhd, Maxis Mobile services Sdn Bhd, Advanced Wireless Technologies Sdn Bhd, Maxis Collections Sdn Bhd, and Maxis Multimedia Sdn Bhd. Both the companies have engraved its successful innovation management based on multi-dimensional perspective such as innovation in network, data service, social responsibility, and even in the organizational values and practices.

2. Telecommunication Network

In the telecommunication industry, network coverage is the most important concern for the any companies. Telecommunication companies at large depend on the frequency of network and their services. The stronger network a telecommunication company has, the more it has the chance to retain in the competitive market. In the DiGi's network coverage 95 percentages are 2G and 54 percentages are 3G network. 60 percentages of EDGE Mobile Data coverage focused on market centers and towns. These significant performances lead DiGi to lead in the industry in terms of innovation. Not only as a 'catalyst', DiGi has enabled itself as a Game-changer in the Malaysian telecom industry with a proven track record of product and service innovation (Borge,

2012). To make their journey more comfortable and triumphant, this company has entered into a Network Collaboration Agreement with Celcom Axiata Berhad in 2011 (Sustainability-report-DiGi, 2011). On the other hand, Base on the Annual-Report-Maxis (2011), the company claimed to be the first to launch high-speed networks in Malaysia including 3G, 3.5G, 3.5G+, 3G Connect Card, PC Webmail, Video Mail and the first to conclude LTE (Long Term Evolution) trials. Maxis has taken the lead in active network sharing in the country. In October 2011, Maxis and U Mobile Sdn. Bhd. entered into a landmark agreement to share Maxis' 3G radio access networks (RAN), making the partnership the first active 3G RAN sharing arrangement to be deployed in Malaysia.

3. Ongoing Operational Data services

Data service in telecommunication companies is the vital tool to operate its functioning's. From the innovation management perspective following are the data services provided by both the companies. Let's start the brief discussion with DiGi. Below are some selected of advanced data services that DiGi offers to the consumers (DiGi, 2012).

DiGiLIVE Zero-DiGi has developed DiGiLIVE Zero portal to deliver "Internet For ALL". DiGi is the first mobile operator in Malaysia, which offer free mobile surfing via Opera Mini to selected sites every month. Consumers can browse the sites listed on DiGiLIVE Zero without any data charges.

Wikipedia Zero-DiGi's consumers are the first in Malaysia to use fee mobile surfing by accessing Wikipedia Zero on the DiGiLIVE Zero portal. Consumers by accessing through the Opera Mini browser can surf the contents of Wikipedia Zero without any data charges. Wikipedia Zero is part of the Wikimedia foundation's mobile strategy, which focuses on reaching the billions of people around the world whose primary opportunity to access the internet, is via a mobile device.

M2M MVNO service- DiGi come up with the M2M MVNO (Machine-to-Machine Mobile Virtual Network Operator) which enables communication for machines and devices using DiGi's network. M2M is a business solution that includes:

- **Automotive telematics:** Provides communications from vehicles to assist car owners during breakdowns, emergencies and permits preventive maintenance. It includes infotainment, security and other value-added services.
- **Positioning and asset tracking:** Prevents fraud and theft of equipment by monitoring locations of assets such as containers, trailers, mobile fleets and moving goods.

On the other hand Maxis has also significantly come up with the data services which reflect the successful innovation management. Below are some selected of advanced data services that Maxis offers to the consumers (Annual-Report-Maxis, 2011).

Maxis International Remittance – international money remittance has become an interesting issue among especially the telecom industry. The mobile phone has been used as tool for money transfer across the border. An initiative of Maxis, with M-money, facilitate its consumers to remit money directly to Globe GCash subscribers in the Philippines, to any registered users in five major banks in Indonesia and also to any recipients globally through the Western Union network.

Maxis-PayPal – Maxis has come up with Maxis-PayPal with collaboration with PayPal and Hotlink to make purchases online from consumers mobile and also pay their Maxis postpaid bills.

Maxis Insurance – Maxis has brought insurance in the mobile technology. The consumer of Maxis can buy sachet-sized personal accident, travel and device insurance to cover any unforeseen circumstances whenever the need arises. This can be done via SMS from the consumer mobile phone.

Remote Surveillance – A true Mobile Monitoring Service which streams live video images from installed cameras and closed circuit televisions (CCTV) to the mobile device anywhere and anytime.

CobraConnex – CobraConnex is a remote vehicle security system with a host of comfort features. The CobraConnex device enables consumers to communicate directly with their vehicle and locate and/or immobilize the vehicle in real-time through the on-board GPS (Global Positioning System) and GSM (Global System for Mobile communications) technologies.

4. Innovative services and products

As said earlier, DiGi is the top most innovative company in Malaysia, while Maxis has been ranked as the 3rd most innovative company (Pawanchik et al., 2011) and both have continued its innovations up.

DiGi has differentiated itself from other telecommunication companies with the commitment to enable “internet for all” through easily accessible Smartphones. Recently in October 2012, DiGi Telecommunications Sdn Bhd ("DiGi") has become the first mobile operator in Malaysia to partner with WhatsApp Inc. In line with DiGi's mission to deliver “Internet For All” which offers exclusive packages for consumers to enjoy unlimited access to WhatsApp Messenger services (DiGi, 2012). Table 1 shows some selected DiGi's innovative services since 1995 until 2011.

Table 1: DiGi's innovative services (1995-2011)

Talk of the Town on DiGi's innovation	
1 st in Malaysia	
- Fully Digital Cellular Network	1995
- PREPAID Service	1998
- Automatic International Roaming & GPRS	2002
- Multimedia Messaging Service	2003
- EDGE – High speed Data Network	2004
- Postpaid with zero monthly fees	2005
- 1-Low-Flat-Rate for any network, anytime, anywhere	2006
- Mobile Podcasting, Mobile Instant Messaging	2007
- Personal Accident Coverage via your Mobile	2008
- Unlimited Mobile Music Portal	2009
- First Shared Mobile Network Infrastructure	2010
- Device Cloud Leader - iDiGi® M2M MVNO service	2011
- Free mobile surfing via DiGiLive Zero, Wikipedia Zero	2012

Source: DiGi (2012)

Telco-branded prepaid payment card, machine-to-machine Mobile Virtual Network Operator (MVNO) for the first time in 2011 has proven DiGi's successful innovation endeavor again. DiGi has set a long-term goal to be the leading global provider of wireless machine to

machine (M2M) networking products and solutions (Annual-Report-Digi, 2011). This new initiative enables to connect, control and monitor from remote places. The end-to-end capability helps in prototype testing of product to ready the devices to market (Figure 2).

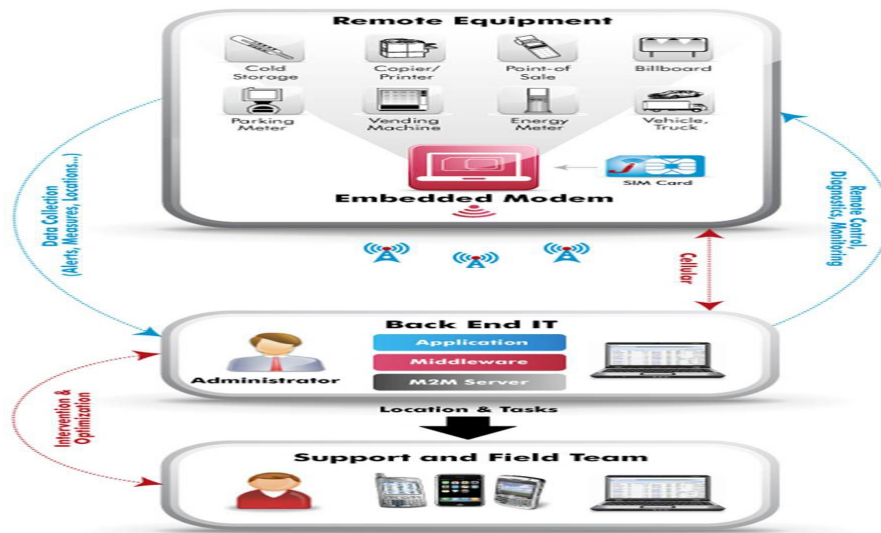


Figure 2: Machine-to-machine Mobile Virtual Network Operator (MVNO)
Source: Telecommunications "Next Generation Networks" Tech Talk (2012)

Maxis, however came up number of innovations which placed them in a prestigious position. Following are some of the innovative services provided by Maxis.

Other services provided by Maxis to the business enterprises are: *Cloud Computing Services* – Maxis Cloud provides an on-demand, real-time, and fully-managed cloud computing services to both SMEs and enterprises. With Maxis Cloud, both large and small businesses can implement a flexible secure IT infrastructure that can grow with their business while easily meeting their peak demand needs at much lower cost. Businesses can connect their offices to the Maxis Cloud via many of the access technologies offered.

Table 2: Maxis's innovative services (1995-2012)

Talk of the Town on Maxis's innovation	
1st in Malaysia	
- Fully automatic international roaming mobile service	1995
- E-billing service	1999
- GPRS live call, WAP	2000
- Bundled m-service plan	2002
- International roaming MMS in Malaysia, Singapore and Hong Kong	2003
- Friend Finder (through permission-based location tracking service), Prepaid SMS Roaming service	2004
- 3G service, "Multi-SIM 1 Line" service to postpaid consumers	2005
- "Push To Talk" service	2006
- M-Money a complete mobile money service	2007
- Blackberry Bold smartphones in Malaysia	2008
- Apple iPhone TM , FastTap with commercial NFC services	2009
- Mobile unified communication service; Unity Solution, for Enterprises and SMEs	2010
- M2M, Multiple-play service in Malaysia with Maxis Home Services	2011
- Digital book service, personal cloud-based service	2012
1st in the world	
- HSDPA for wireless broadband services	2006
- World's first international mobile to mobile money transfer service partnering with Globe Telecom between Malaysia and the Philippines	2007

Source: Maxis (2012)

5. Merger, collaboration and acquisition

It is to be noted that Maxis has gone for more merger, collaboration, and acquisition than DiGi. Perhaps it is one of the reasons that Maxis has more market share than DiGi but though it's not been a proven proposition. In the telecommunication market, Maxis had merged with Hotlink. This merger strategy has increased the market share at large. As part of business acquisition strategy, in 2002, Maxis signed a conditional sales and purchase agreement with TimedotCom Berhad for the purchase TimeCel Sdn. Bhd (Maxis, 2012).

The company not only plans to remain within Malaysia rather it is looking forward to expand the business in Indonesia and India with the aspiration to be a regional communication

operator (Annual-Report-Maxis, 2011). The acquisition of a 51% stake in PT Natrindo Telepon Seluler (NTS), Indonesia and a 74% equity interest in Aircel, India will provide tremendous growth opportunities for Maxis. These acquisitions give Maxis a strong foothold in two of the world's most attractive high-growth, low-penetration markets, while diversifying our market base. Maxis has been successfully conducting business in the Malaysian telecommunication market for the last couple of years. One of the major strategies that made the company a thriving one is collaboration. Most of their collaborations are established with multiple and with well-reputed companies. One of the remarkable collaborative innovations is Maxis FastTap service, with Nokia, Visa, May Bank, and Touch 'n Go (Annual-Report-Maxis, 2011). This collaboration ranged from conception through trial to the commercial roll out. According to Maxis, this is a "first-in-the-world" milestone for contactless mobile payments using Near Field Communication (NFC), a short-range wireless technology that allows communications between devices at close range (Figure 3).



Figure 3: Near Field Communication (NFC)
Source: Libramation (2012)

Maxis FastTap was the first commercial NFC service launched globally that integrated multiple applications for contactless payment -both Maybankard Visa payWave (in collaboration with Maybank and Visa) and transit payment (with Touch 'n Go) on the same device (the NFC-enabled Nokia 6212) (Figure 4). With this, consumers can perform contactless payments at any Visa payWave merchants or Touch'n Go points nationwide with the NFC enabled Nokia 6212, to purchase goods and services at more than 1,800 Visa payWave merchant locations as well as

paying for toll, transit, and parking and theme park charges at over 3,000 Touch 'n Go points nationwide (Maxis, 2012).

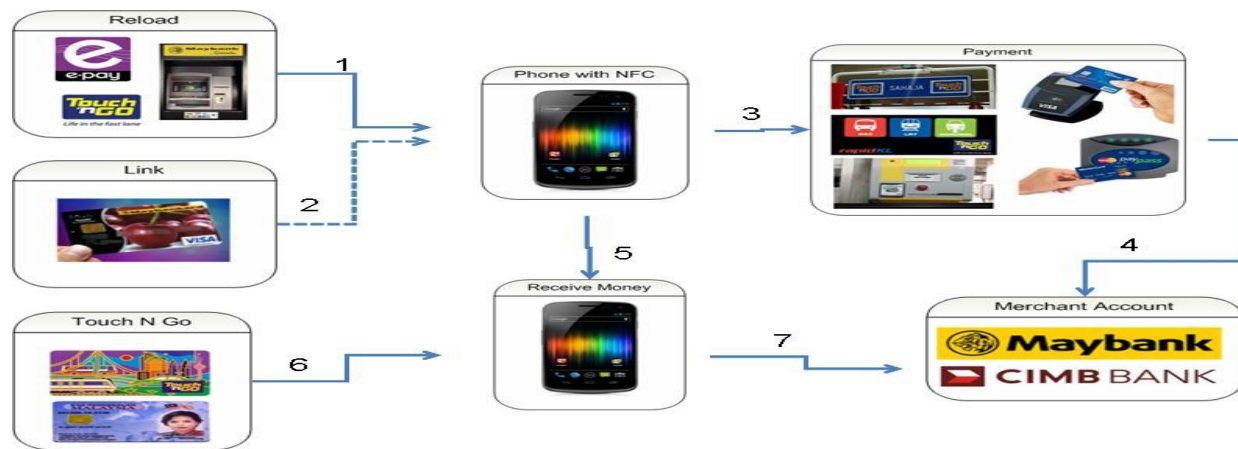


Figure 4: Maxis FastTap + NFC (Near Field Communication)
Source: Junaidix (2012)

6. Broadband Services

According to data from DiGi (2012)'s official website, DiGi was the newest 3G broadband provider, investing in the then latest High Speed Packet Access (HSPA) technology to be the first in Malaysia to deploy a 14.4 Mbps network. Since the launch of its 3G services in 2009, it has proven its ability to grow the mobile broadband market by increasing market share from 0% to 12% by the end of 2010. Moreover, availability of devices and better usage experience proved their success in collaboration with external partners. While Maxis offers businesses a number of ways to access the internet ranging from dedicated leased lines, ADSL, fiber optic and satellite technologies. From the technical perspective, the company has established largest and best network in Malaysia along with opening up 4 generations (4G) network. This happened mainly due to reacting promptly and efficiently to the market demand with its information technology landscape.

7. Human resource

From the organizational perspective, DiGi has developed its human resource transformation process through clarifying roles, employee expectations, structured development platforms, competitive reward structure. The company's thriving effort indicates to continue its

legacy as a one of the best place to work in Malaysia, for example, the flattened job structure, two-track (management and expert) career path, and single benefit of all the employees (MPC, 2011).

8. Corporate Responsibility

Corporate responsibility or corporate social responsibility is now an integral part of companies, which drives them to be accountable to the society, in another sense to the consumers. As a part of Corporate Responsibility philosophy, DiGi focuses on the physically challenged community as an alternative source of talent (DiGi, 2012). Collaboration with related NGOs, DiGi ensures the disabled employees are integrated into DiGi's workforce in smooth and efficient manner. It also provides equal career and growth opportunities including similar pay structure to those with special needs. The most interesting part of this initiative is volunteer employees were invited to use a wheelchair for a day to be familiar with the fellow disabled employees' experience. The company has tried to blend the concept of innovation with the work environment, which has reflected in the design of the office building and working area. The company introduced a practice termed as Work@ which came forward with the philosophy of working mobility (DiGi, 2012). DiGi provide a flexible way of working for its employees. This practice enables employees to work from any place within the premises rather sitting in a single space. DiGi also encourages flexible working arrangement with full trust and transparency. It allows people to plan their work as long as they are in the office within the time of 10 a.m. and 5 p.m. These transformational efforts have kept DiGi's attrition rate at about 11%; well below the industry's average of 15% (MPC, 2011). The company's effort towards organizational structure and establishment of the company in the market in terms of innovation has engrossed significant benchmark in the industry. As part of their social responsibility, DiGi has also tracked out from the traditional initiatives. Some of the interesting initiatives drew much attention like NUR (National Urgent Response) alert which facilitate to spread information quickly and as fast as possible to help trace missing children (below 12 years of age) who could be victims of crime or abuse (DiGi, 2012).

Alternatively, Maxis believe to do business in sustainable and ethical way to have the full confidence and trust among the consumers. In this regard the company carrying out initiatives which signifies the presence in the domain of corporate responsibility. The company has

clustered the corporate responsibility on different themes, according to the data from Maxis's corporate responsibility (Maxis, 2012) and Sustainability-report-Maxis (2011). As part of the community effort, Maxis initiated efforts like bridging the digital divide, education and development, employee volunteerism and protecting the environment. One of the flagship community projects in Maxis CyberKids Camp which teaches 13 and 16 year olds pupil and their teachers, to use computers and the Internet in a better way. This program allows the students to develop mobile content, applications and services. To advance the local capability for mastering in mobile content development, Maxis has taken initiative to generate 461 ideas to help spur the growth of Malaysian indigenous mobile content industry. The company recognizes the talent of outstanding students and their pursuit of knowledge by offering scholarships for both undergraduate and postgraduate students. Maxis not only focuses on the business perspective while commercialization of the products. Rather the company keeps in mind about the disabled community who are also targeting client. The company made efforts to include under-privileged communities in the service offerings by significant discount off the iPhone™ 3GS' retail price with a sign-up to a Maxis iValue plan for the visually impaired. Seventy members of the Malaysian Association of the Blind were included in the company's promotional campaign. By making the iPhone™ 3GS affordable and accessible, the company enabled this community to experience the device's built-in features, such as its voice-over function, digital compass and a visual impairment-friendly Global Positioning System program with local maps, all of which proved particularly useful to them. Maxis not only serve the disabled community but also encourage the employee to work voluntarily in the local community. These activities are aimed to foster closer relationships with the local community and contribute towards improving the social and economic status of under-privileged communities. In response to the environmental degradation Maxis has initiated to reduce the carbon footprint. This ambitious initiative has resulted in replacement of key network elements with best-in-class technologies, which are energy-efficient at the same time, such as 3G single radio access network ("Single RAN"), and the Mobile Soft Switch ("MSS") system. Moreover, the company has adopted more energy efficient DC rectifiers and outdoor shelters, which are innovative systems to manage heat in existing shelters and to drive down energy deployment. The company has also drawn on renewable energy solutions such as solar to replace diesel powered remote base stations and has advocated network sharing, with over 54% of base station sites shared with other operators.

9. Organizational culture

Organizational culture has set a staggering benchmark for Malaysian companies to emulate. Considering the organizational dimension apart from the innovation and sustainability issues, it is understandable that DiGi has an obvious and proficient influence of the flat Scandinavian organizational culture (Pawanchik et al., 2011). Along with the success in innovation and sustainability, the company has also proven itself as responsible leaders in terms business practices towards the society. The company claims its commitment to drive Malaysia towards economic as well as societal development. While carrying out the research it has been revealed that DiGi is more transparent than Maxis in terms of providing information. A kind of rigidness has been observed in the Maxis corporate environment, which give a direction that the organizational culture still has Asian mindset. On the other hand, in DiGi, it has been clearly divulged that they were able to carry out its business operation as a true multinational company.

However, understanding the innovation activities and its management is not enough to have a broader spectrum of ideas. Therefore, it is important to have a SWOT analysis for both companies.

Parameters of SWOT for DiGi

Strengths

- Flexible working hours
- Open communication – encourage co-worker and manager to exchange ideas and discussion
- Care for employee's health and safety environment.
- Provide continuous improvement to develop the talent management by offering training and development programs.
- Good reward to their shareholders – offer 80% of the group's annual net profit since the financial year 2010.
- Group revenue increases.
- Subscriber based growth.
- Mobile Broadband and Mobile Network service provider.
- Retail–digi Family plan.
- Effective E-Commerce.
- Market strategy based on likely average speed (LAS)-customer enjoy stable mobile internet connection.
- Low cost calling and high quality voice to their own associates partners, ie. Bangladesh (Grameen), Telenor network.
- Broadband and Internet Services in right directions.
- Mobile Virtual Network transmission system - Provides domestic roaming.
- Facilities– auto reloads online payment.
- Different SIM card – to cover customer network.

Weaknesses

- Lack of manpower and Increased workload.
- More training needs to provide to upgrade and continuous improvement.
- More money needs to be invested for maintenance and upgrade the network with latest equipments.
- Market is saturated (106%) and need to find innovative ways to acquire new subscribers.
- Lack of contents and value added services for the subscribers.
- Lack of base station compared to other operators/competitors.

Opportunities

- Living Standard and higher purchasing power of money in Malaysia.
- Globalization factor.
- Increasing number of foreign workers.

Threats

- High inflation – increased price.
- High bargaining power of customer.
- Malaysian Government discourage cell phone usage among school kids.
- Continuous technology advancement in wired & wireless technology.

Parameters of SWOT for Maxis

Strengths

- Strong regional player in the market.
- Affiliation with MEASAT Satellite System.
- Good network coverage in and around Malaysia.
- Have strong brand image as the market leader in Malaysian Telecommunication industry.
- Good deals and special offers for different age groups and also target groups.
- The oldest and biggest in terms of size and technology.
- Provides reasonable plans and packages for all users.
- All type of telecommunication and internet technology services.

Weaknesses

- Interruption of the line at certain areas.
- Not up to the mark in customer services.
- Deals and offers are limited to certain time and selected areas only.
- Users tend to switch over with the existing mobile number with no extra cost.
- Lack of MAXIS centers to enquire information or to pay bills.
- Broadband speed is good during the first 7 days after activation and goes down later on.
- Over dependence in Malaysian customers.

Opportunities

- New technology is developing like mushrooms, so when there are new telecommunication gadgets, there will be opportunities to explore in.
- Growth of hand phones users and internet services provide more market opportunities.
- Expanding their business to overseas.
- Building more MAXIS centers especially suburban areas of Malaysia.
- New events and occasions are correctly tapped for business opportunities.
- Alliance with Microsoft.
- Growing broadband market in Malaysia.
- Accelerating wireless market in Asia Pacific.

Threats

- Growing market with many exiting Telco companies and new emerging companies are competing with MAXIS.
- Maxis customer may switch over to different Telco to enjoy the service and benefits by their competitors.
- Posing extra rules like all the hand phone users must register their number to their own respected Telco centers.
- Financial crisis, economical issues or natural disasters.
- Regulatory framework.
- Mobile number portability in Malaysia.
- Intense competition.

10. Discussions and recommendations

The continuous growth in the telecommunication market may push organizations to manage the excellent services in order to meet the consumer requirements, as the telecommunication system is more consumer-focused. Satisfying consumer needs through excellent service enables to gain a competitive advantage over its rivals and encourages managers to change their decision-making processes. Differentiation and offering innovative service-product remains a key element of changes and brings about self-distinction from their competitors (Victorino, Verma, Plaschka, & Dev, 2005). This process usually drives organizations towards service innovation. Service Innovation in Telecommunication industry needs potential changes in today's economy since it has been pointed out to be the main catalyst to the firm's growth (Taghizadeh & Rahman, 2013). Service Innovation is the platform which can completely turn around any organization in a robust manner. In order to make the innovation successful and have better market performance, it is indeed important to focus on some concerns which are commonly ignored by the business organizations. Continuous overlooking these issues

lead to form barriers for innovation. For instance, keeping the pace up with technological advancement is essential factor for Telecommunication industry. It has also been identified that organizational culture differentiation is prominent impediments that affect the innovation management and thus lowers the market performance. From a comprehensive view, the organizational culture would be determined for the successful innovation management. The organizational culture within the company would facilitate the managers to be more proactive in service product management and enhanced market performance. However, to achieve long term strategic goals and create a competitive edge in the business arena, firms should understand how to build a path with the help of service innovation as catalysis.

References

- Annual-Report-Digi. (2011). from www.digi.com.my
- Annual-Report-Maxis. (2011). from www.maxis.com.my
- Borge, Terje (2012). DiGi @ INVEST MALAYSIA 2012. from <http://www.investmalaysiaconference.com/media/pdf/2012Slides/Corporate%20Presentation/DiGi%20Bhd.pdf>
- DiGi. (2012). DiGi. from <http://www.digi.com.my/landing.do>
- Economic Transformation Programme. (2013). Chapter 13: Communications Content and Infrastructure - Driving the Transition to a Knowledge-Based Society. from http://etp.pemandu.gov.my/upload/etp_handbook_chapter_13_communications_content.pdf
- Junaidix. (2012). Maxis FastTap will begin implement 1st part of nfc based mobile payment of Malaysia.
- Libramation. (2012). Near Field Communication. from <http://www.libramation.com/>
- Market Watch. (2012). IT and Telecommunications in Malaysia.
- Maxis. (2012). Maxis. from <http://www.maxis.com.my>
- MPC. (2011). Analysis on the Business Transformation of Organizations through Innovation. from <http://www.mpc.gov.my/home/index.php>
- Pawanchik, Azim, Sulaiman, Suraya, & Zahari, Aina (2011). National innovation strategy study, stimulating innovation among large firms in Malaysia: Strategy and policy recommendations. *Commissioned by: Special Innovation Unit, Prime Minister's Office.*
- Sustainability-report-DiGi. (2011). from www.digi.com.my
- Sustainability-report-Maxis. (2011). from www.maxis.com.my
- Taghizadeh, Seyedeh Khadijeh , & Rahman, Syed Abidur. (2013). The Effect of Service Product Innovation Management on Market Performance through Organizational Culture: In Context of Service Product Industry *International Journal of Business and Innovation*, 1(1), 1-15.
- Taghizadeh, Seyedeh Khadijeh, Jayaraman, Krishnaswamy., Ismail, Ishak., & Iranmanesh, Mohammad. (2013). Service Innovation Management on Market Performance through Relevancy of Market conditions: Guide to Telecommunications Industry, Malaysia. *Australian Journal of Basic & Applied Sciences*, 7(4), 241-252.
- Telecommunications "Next Generation Networks" Tech Talk. (2012). M2M ""Machine to Machine"". from <http://telecommunications-ngn.ning.com/>

telenor group. (2012). Our business - a leading mobile operator. from <http://telenor.com>
 Victorino, Liana, Verma, Rohit, Plaschka, Gerhard, & Dev, Chekitan. (2005). Service innovation and customer choices in the hospitality industry. *Managing Service Quality*, 15(6), 555-576.

Appendix-I

Company Profile - DiGi

DiGi company	2011
Owned by Telenor group	49 %
Revenue	RM 5,964 million
Earnings before interest, taxes, depreciation and amortization (EBITDA)	RM 2,765 million (15.2 % improvement)
EBITDA margin	46.4 %
Earnings before interest and taxes (EBIT)	RM 1,597 million
Net operating cash flow	RM 2,155 million (28.1 % growth)
Total assets	RM 4,863 million
Return on equity	88.9 %
Return on total assets	25.8 %
Network capital expenditure (CAPEX)	RM 610 million
Employee	2077
Population Coverage	95% 2G and 54% 3G
Voice coverage of populated areas	>95%
EDGE Mobile Data coverage focused on market	>60%
Centers and towns	
3G HSPA launched in the Klang Valley, Penang, KK, Kuching and Johor	>50%
Subscribers	9.90 million
Market share in telecommunication	27.1 %

Source: Annual-Report-Digi (2011), Sustainability-report-DiGi (2011)

Company Profile - Maxis

Maxis company	2011
Revenue	RM 8,800 million
Earnings before interest, taxes, depreciation and amortization (EBITDA)	RM 4,423 million
EBITDA margin	50.3%
Net operating cash flow	RM 3,711 million
Total assets	RM 17,991 million
Return on equity	30.2%
Return on total assets	15.4%
Network capital expenditure (CAPEX)	RM 1,000 million
Employee	3,437
Population Coverage	95% 2G and 81% 3G
Voice coverage of populated areas	>95%
Subscribers	14 million
Market share in telecommunication	39.1%

Source: Annual-Report-Maxis (2011), and Sustainability-report-Maxis (2011)