

**CASE STUDY: DOES CELLULAR MARKET SATURATED IN MALAYSIA?****<sup>1</sup>MOHD FARID SHAMSUDIN, <sup>2</sup>NOR AZILA MOHD NOOR, <sup>3</sup>AFFENDY ABU HASSIM, <sup>4</sup>HAFEZALI IQBAL HUSSAIN, <sup>5</sup>MILAD ABDELNABI SALEM***<sup>1,3,4,5</sup>Universiti Utara Malaysia, <sup>2</sup>Universiti Kuala Lumpur  
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Mobile phone services in Malaysia have seen a remarkable growth in the number of subscribers since year 2000. At the end of 2014, Malaysia has 44.9 million subscribers in total, or 148.3 percent **penetration rate** according to the statistics on "Cellular Phone Subscribers" by the Malaysian Communications and Multimedia Commission (MCMC). Table 1.1 shows Malaysia Cellular Phone Subscribers Statistics (2005-2014).

Table 1 : Malaysia Mobile Cellular subscribers' statistics (2005-2014)

<b>Year</b>	<b>Postpaid</b>	<b>Prepaid</b>	<b>Total Customers</b>	<b>Penetration Rate</b>
2005	2925	16620	19545	74.1
2006	3368	16096	19464	72.3
2007	3905	19442	23347	85.1
2008	5544	22169	27713	98.9
2009	6265	24114	30379	106.2
2010	6689	26417	33106	116.6
2011	7067	29595	36661	127.7
2012	7375	33950	41325	142.5
2013	7645	35311	42956	143.6
2014	8149	36780	44929	148.3

*Source: Communications & Multimedia, Pocket Book of Statistic, Q4, 2014.*

Based on the statistics presented by above, Malaysian mobile phone services have experienced a tremendous growth in the number of subscribers from the year 2005 to 2014. The statistics also shows that the number of pre-paid customers has grown significantly compared to the post-paid customers.

The continuous fierce competition and limited available market have forced mobile phone service providers to be more focus and aware of the drivers towards customer satisfaction and

loyalty in order to stay stronger in the market and build effective business strategies for customer retention (Lim, Widdows, & Park, 2006). Satisfaction and loyal customer is important to the telecommunication industry as according to Aydin and Ozer (2005), telecommunications companies are losing 2 to 4 percent of their customers every month and these disloyal customers amounted to millions of lost in terms of revenue and profit.

A research conducted by Informa Telecoms and Media on “Prepaid Strategies 2014” illustrated that the cost of churn in terms of the revenue lost can be tremendous. For example, if a mobile service providers begins a year with one million subscribers and experiences blended churn rates of 3 percent per month with no concurrent new subscriber growth, it will lose almost 285,000 customers during the year; with **Average Revenue Per User (ARPU)** of US\$20 a month, this equates to US\$35.8 million in lost revenue per year.

In the United Kingdom 20 percent of Orange customers defected each year and on average this cost Orange £256 in 1996 to recruit each new customer, reflected in the cost of introductory offers, subsidised phones and advertising (Aydin & Ozer, 2005). Surveys on US consumers’ perceptions of mobile service also show that the level of satisfaction is much lower for mobile phone service compared to other service sectors (Consumer Report, 2005; McKinsey Quarterly, 2004). Customer satisfaction has been a major goal of business organisations, since it has been deemed to affect customer retention and companies’ market share (Hansemark & Albinsson, 2004).

### **Postpaid vs prepaid**

The statistics proofed that pre-paid mobile communication in Malaysia has become the necessities as compared to a decade ago. As at 2014, there are 82 percent of pre-paid users as compared to the post-paid customers. Indirectly it indicates that the pre-paid segment is very much important to the operator in the industry though the characteristic of pre-paid customers is very volatile where the subscribers are mostly teenagers with non fixed income; however they contributed a strong drive in determining which operator provides the best network and services.

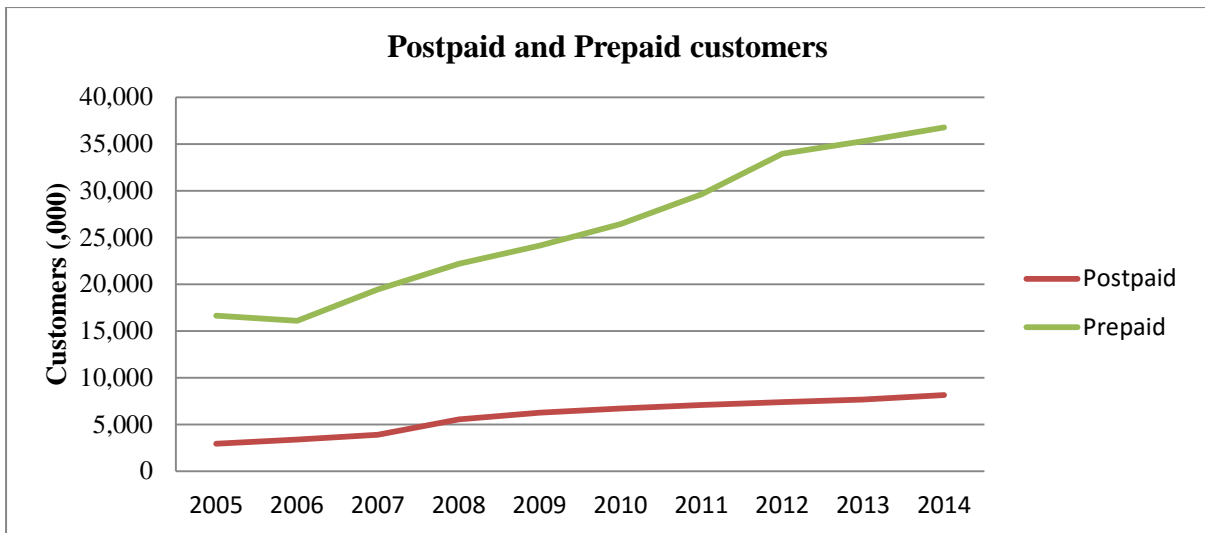


Diagram 1 : Post-paid and Pre-paid customers (2005 – 2014)

Pre-paid mobile customers are more independence since they can control their own spending with limited indebtedness, no contractual limitations, no early termination fee, freedom to change service providers (churn) and also easy to register. Unlike the Post-paid registration, the acquisition of pre-paid customer is very simple, as they do not have any service contract.

Pre-paid customers may just purchase the starter pack at the cheapest of RM5 and start using it. There is no strong relationship between customer and operator when it comes to pre-paid. Limited market share led to competition with involves price war and other tangibles offer, which adds more advantages to the consumer. Customers have power to determine the market share as the decision to churn is very quick, and furthermore it is uncontrollable by the service providers.

Having a large numbers of pre-paid customers lead to a greater challenge to service providers. These is because their nature of consumption with a minimum requirements offered them more bargaining power especially when the competition is fierce among the market players. On average the industry annual churn rate for prepaid customers is between five to 10 percent.

Table 2 : Comparison between Prepaid and Postpaid characteristics

Pre-paid	Post-paid
No contract	Minimum of 1 year contract with a specific commitment fees on monthly basis
No commitment	
Low data usage	High data usage with specific monthly allocation
Low spend (price sensitive)	Less sensitive as the package inclusive all data, voice and SMS
Freedom of choice	Subject to the terms and conditions
Fierce competition	Not affected within the contract period

*Source: Prepaid loyalty challenge, Amdocs 2009*

### **The important of customers**

Customer churn is a basic unit of the telecommunication industry, which is used to describe customer loss or sometime known as customers' termination. It is when customers whether willingly or not ended the subscription. The reason of terminations varies from one subscriber to another.

Johnston (2001) indicates that when firms lose a customer they are not only losing future earnings and incurring the cost of finding new customers, they are also likely losing a loyal customer, which means giving up high margins. Organization needs to spend more cost to acquire new customers when the existing customers switch. Sivadas and Baker (2000) shows that it can cost five times more to acquire a new customer than to retain an old one.

Customer churn is not only affecting the cost but beside that, it could also lead to a negative word of mouth, damage on brand image, and reputation which can harmful the organization. A retention and loyalty activity normally aims for two important things, which are to build close relationship with customers and avoid them to switch or churn. The other objective is to increase the revenue from the customer base. Therefore, retention can be defined as "a commitment to continue to do business or exchange with a particular company on an going basis" (Bitner, Booms & Tetreault, 1990)

Various strategies may be used in order to remain competitive such as reducing operational costs, introducing new services, attracting new customers and maintaining customers' loyalty. However, research has found that acquiring customers is much more expensive than keeping them (Reichhel, 1996). Goodman, O'Brien and Segal (2000) state: It is from 2 to 20 times more expensive to get a new customer than to retain the existing. Yunus (2002) indicates that the cost to acquire new customer for Vodafone UK were \$180 and recommended that mobile operators to adjust their marketing strategies to focus on loyalty rather than acquiring new subscribers.

Brown (2004) pointed that mobile operator spend \$300 to acquire new customers in the year 2004. Since it is costly to attract new customers than to maintain the existing customer, mobile phone service providers need to pay particular attention towards customer loyalty. In other words, is it critical to retain existing customers to ensure survival in this line of business. Before embarking on any strategy to maintain the existing customers, it is important to properly gauge the determinants of customers' loyalty. Therefore, retention of loyal customers is an important factor for long-term success of the telecommunications companies and the main agenda in marketing has moved from getting new customers to retention of existing customers.

### **Industry background**

The cellular network evolved from a monopoly market, to duopoly and then to an oligopoly market as at today. In the early 1990s, seven cellular operators providing different cellular services nationwide shared the cellular mobile market in Malaysia. By the year 2003, the number of players in the market has been consolidated to only three, namely Celcom, Maxis and Digi.

The government due to financial crisis and stiff competition among the large field of players regulated the consolidation. The following table can give the clear scenario of the consolidation of Malaysia Mobile Market.

Table 3 : Consolidation of Malaysia mobile market

<b>Consolidation of Malaysia mobile market 1992 - 2003</b>		
<b>1992</b>	Consolidation in 2003	2003 – today
<b>Telekom Cellular</b>	Telekom Celular merged with Celcom	Celcom
<b>MobiKom</b>		
<b>Celcom</b>		
<b>DiGi</b>		Digi
<b>Time</b>	TimeCel merged with Maxis	Maxis
<b>Maxis</b>		

Source: *Communications & Multimedia, Pocket Book of Statistic (2008), MCMC*

Table 4 : Details of mobile subscribers (mil) by service providers from 2003 – 2013

<b>Year</b>	<b>Maxis</b>	<b>Celcom</b>	<b>Digi</b>	<b>Umobile</b>	<b>MVNO</b>
<b>2003</b>	4.5	4.4	2.2		
<b>2004</b>	6	5.2	3.2		
<b>2005</b>	7.9	6.9	4.8		
<b>2006</b>	8.1	6.1	5.3		
<b>2007</b>	9.7	7.2	6.4		
<b>2008</b>	11.1	8.8	7.1	0.8	
<b>2009</b>	12	10.4	7.7	0.3	
<b>2010</b>	13.4	11.2	8.8	0.5	
<b>2011</b>	13.3	12	9.9	1.5	
<b>2012</b>	13.4	12.7	10.5	3.5	1.2
<b>2013</b>	12.3	13.1	11	4.5	2.7

Source: *Industry Performance Report (2013), MCMC*

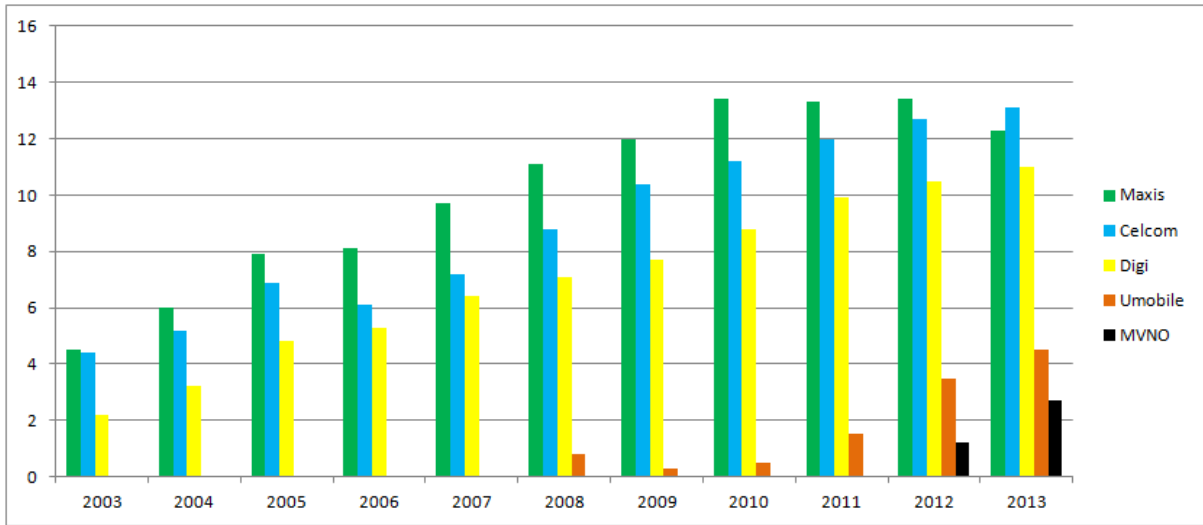


Diagram 2 : Mobile subscriptions (mil) by service providers

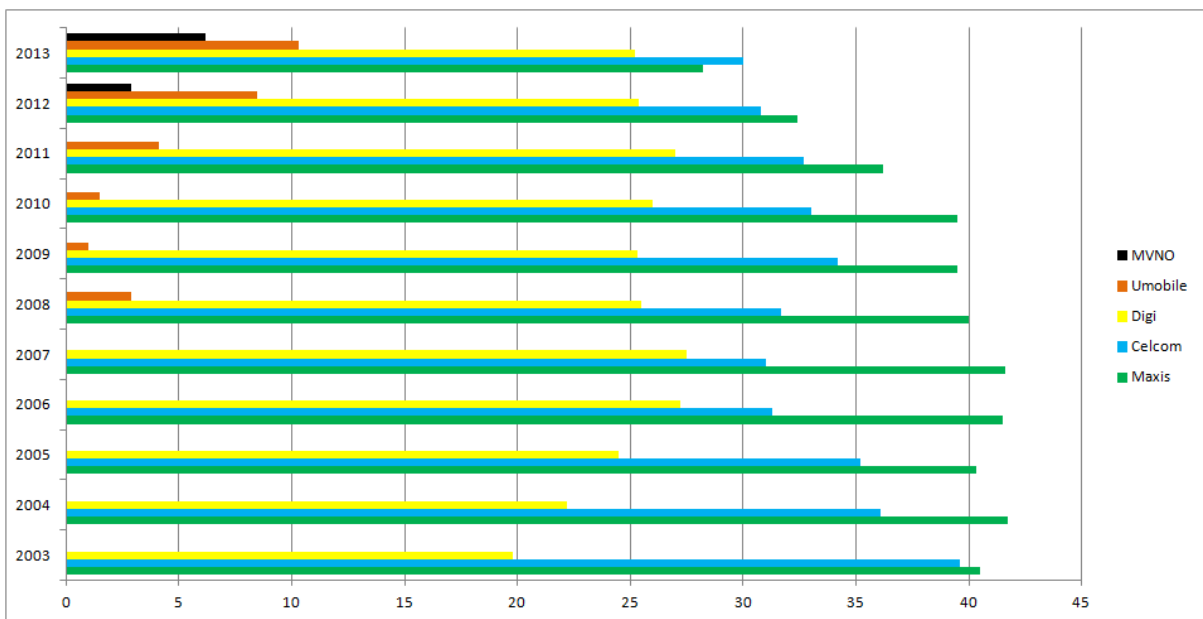


Diagram 3 : Market share by operators from 2003 - 2013

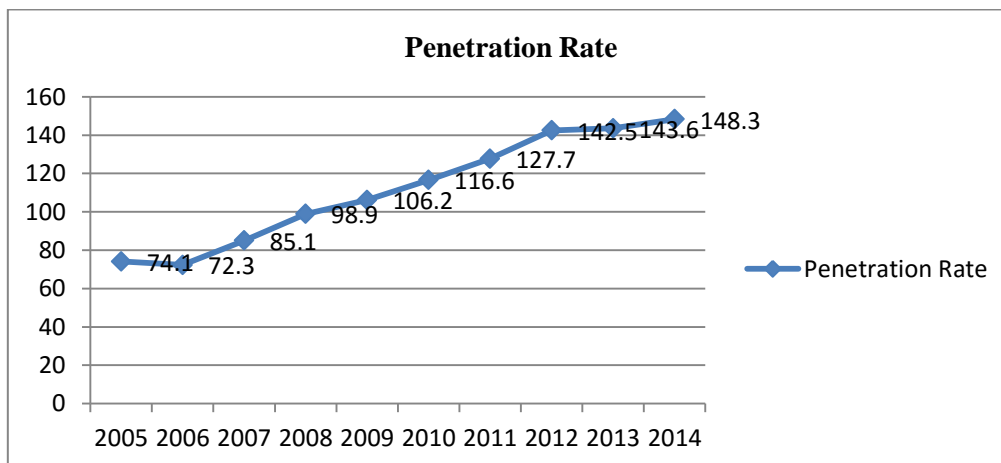
Table 5 : Industry Fact & figures for 2014

Facts and figures as at 2014	Celcom	Digi	Maxis	U Mobile & MVNO
<b>Total subscribers</b>	12.97mil	11.42mil	12.91mil	7.63mil
<b>Total market share</b>	28.9%	25.4%	28.7%	17.0%
<b>Revenue</b>	RM1.81bil	RM1.55bil	RM2.04bil	N/A
<b>Prepaid</b>				
<b>Prepaid subscribers</b>	10.16mil	9.70mil	9.62mil	N/A
<b>Prepaid revenue</b>	RM4.3bil	RM4.6bil	RM3.94bil	N/A
<b>Prepaid market share</b>	33.5%	35.8%	30.7%	N/A
<b>Postpaid</b>				
<b>Postpaid subscribers</b>	2.8mil	1.72mil	3.29mil	N/A
<b>Postpaid revenue</b>	RM2.95bil	RM1.73bil	RM3.92bil	N/A
<b>Total market share</b>	34.4%	20.1%	45.6%	N/A

Source: Digital News Asia, 2015

### Penetration rate

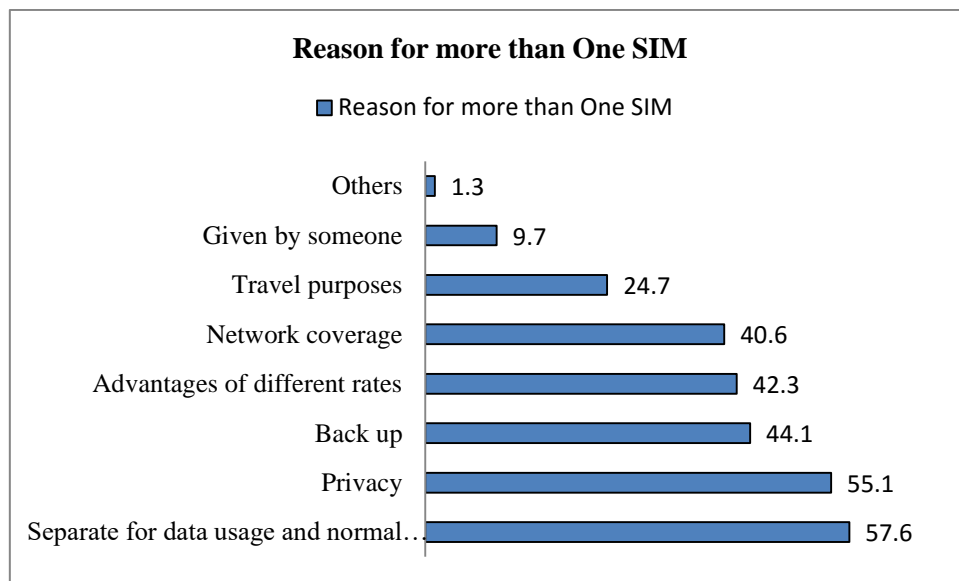
The mobile penetration rate has been increasing from year to year, starting from 1997 to 2007, with the exceptions of 1998 and 2006. The decrease in penetration rate was observed in 1998 could be due to the impact of the financial crisis in late 1997, while the decrease in 2006 was due to the rationalization exercise carried out in the year to ensure legitimate subscribers under the mandatory prepaid registration exercise.



Source: Communications & Multimedia, Pocket book of statistics (2014), MCMC

Diagram 4 : Penetration rate from 2005 – 2014





Source : Industrial Performance Report (2013), MCMC

Diagram 5 : Reasons for having more than one SIM (multiple responses)

### Mobile Number Portability

With the implementation of the Mobile Number Portability (MNP), telecommunication companies suffer from voluntary churn that is the customer's decision to switch to another service provider, especially after some bad experiences with the previous service providers. MNP also requires service providers to allow customers to keep their telephone numbers when switching from one provider to another (Shin and Kim, 2008).

MNP was adopted in the U.S. in 2004 to address the perceived switching costs of changing one's telephone number when one changes service providers. Therefore, retention of loyal customers is an important factor for long-term success of the telecommunications companies and the main agenda in marketing has moved from getting new customers to retention of existing customers.

Table 6 : MNP statistics

	Porting request, 000	Successful, 000
2011	1,002.3	704.9
2012	1,171.8	880.3
2013	1,362.1	1,004.9
2014	1,746.1	1,158.4

Source: Communications & Multimedia, Pocket book of statistics (2014), MCMC

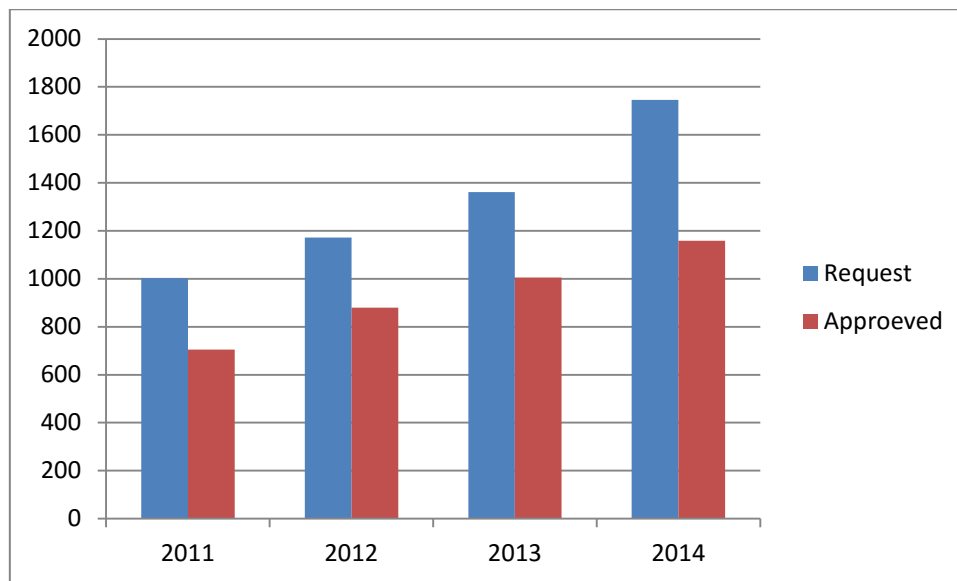


Diagram 6 : MNP statistics from 2011 – 2014

## MVNO

Interesting trends shown those small players in the industry have been able to gain some market share from the three main operators. Small operators or also known as Mobile Virtual Network Operator (MVNO) was established to penetrate niche market by using creative and non traditional method. The MVNO may customize their market offering according or tailor made to their end user needs and requirements. As such the existing of MVNO although seems to be good in market expansion but indirectly creating another type of competition not only in between the three main mobile network operators but within the hosted operator itself.

Table 7 : List of MVNO in Malaysia

No	Company	Launch date	Target Market	Host Network
1	XoX Bhd	2008	Niche on Chinese population	Celcom
2	Merchantrade Asia Sdn Bhd	2007	Foreign worker from Indo-China and South Asian Countries	Celcom
3	Tune Talk Sdn Bhd	2007	Youths, travellers and foreign workers	Celcom
4	REDtone Mobile Sdn Bhd	2008	Small and Medium sized business	Celcom
5	Smart Pinoy	2011	Niche on Filipinos	Celcom
6	Altel	2014	Youth & Malay markets	Celcom
7	Happy	2007	Youth East coast Peninsular Malaysia	Digi
8	Tron	2010	Young Malaysian	Digi
9	Speakout Wireless	2013	Students/ youth, foreigners, retirees and IT savy	Digi
10	Clixster	2011	ANGKASA cooperative members	Digi
11	My Evo	2011	Machine to machine	Digi
12	Telin	2013	Indonesian community	Maxis
13	Frendi Mobile	2013	No specific ethnic group	Umobile
14	Buzz Me	2013	Youth	U-Mobile
15	Prabhu Mobile	2013	Migrant workers from Nepal, Bangladesh, Pakistan and Indonesia	U-Mobile

Source: Mobile Virtual Network Operators (2014), MCMC

**Market share**

**Market Share 2014**

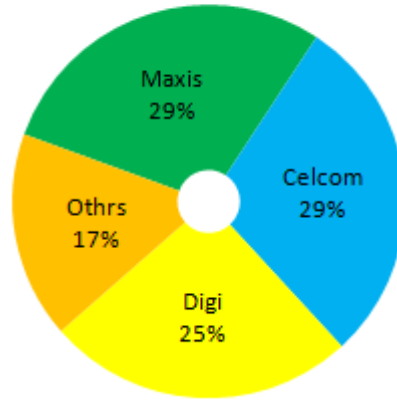


Diagram 7 : Market share

Based on the above diagram, others network represented U Mobile and combination of MVNO. There is no official result produced by U Mobile recently but the final data given was derived from the MCMC quarterly report.

**Understanding customers**

Table 8 : Subscribers by age categories

	2010	2012	2014
<b>Below 15</b>	3.4	1.8	1.7
<b>15 - 19</b>	10.9	11.4	13.0
<b>20 - 24</b>	17.3	17.3	18.1
<b>25 - 29</b>	15.9	15.8	16.3
<b>30 - 34</b>	13.5	13.8	13.5
<b>35 - 39</b>	10.1	10.8	9.3
<b>40 - 44</b>	9.2	9.2	9.2
<b>45 - 49</b>	6.5	6.5	6.0
<b>50 and above</b>	13.3	13.5	12.9

Source: *Communications & Multimedia, Pocket book of statistics (2014), MCMC*

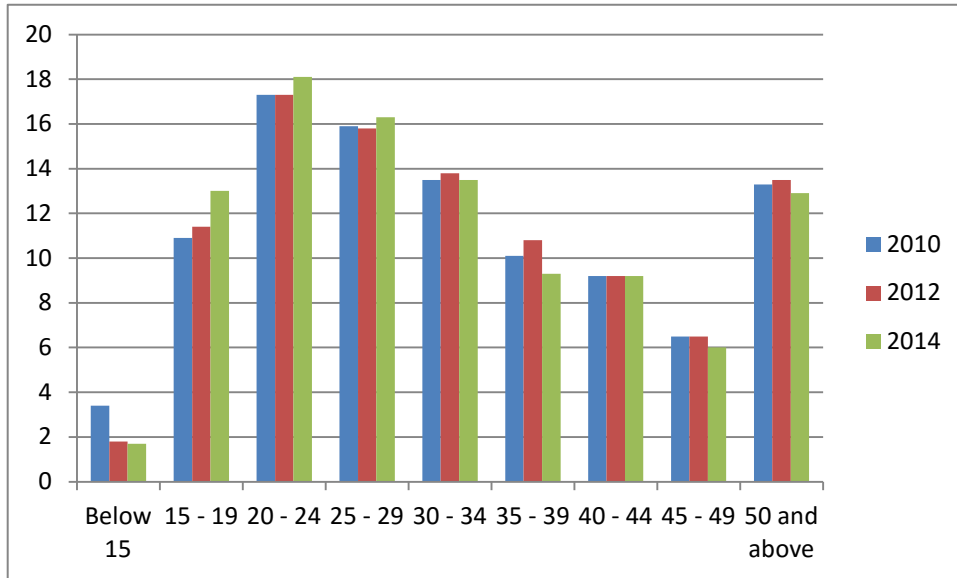


Diagram 8 : Subscribers by age categories

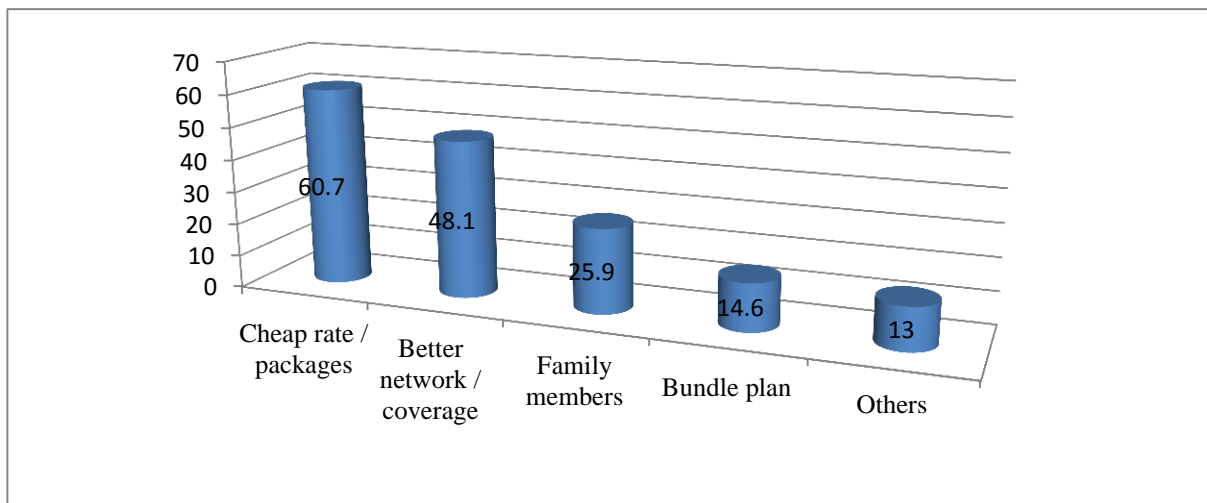


Diagram 9 : Top reasons of why customer churns

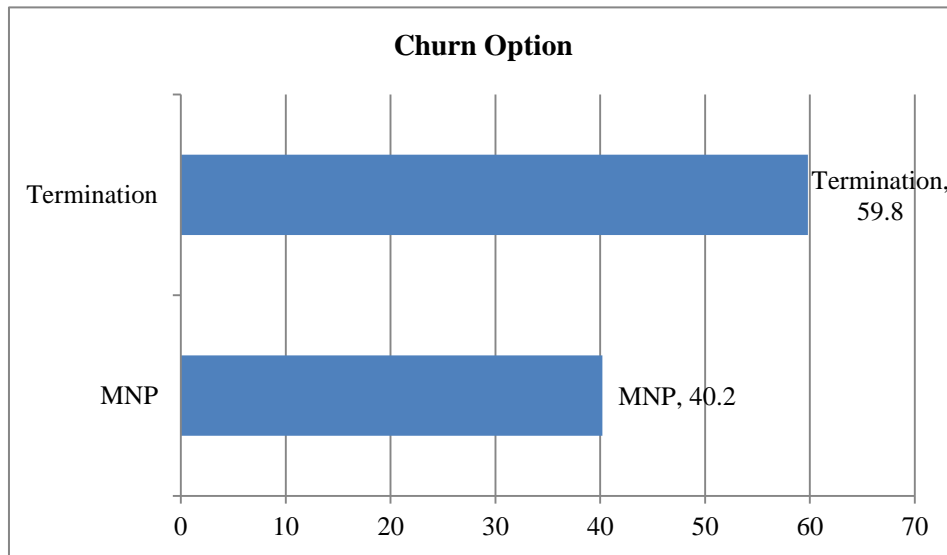


Diagram 10 : Percentage of action taken for churn

## Reason for Churn

### Voluntary termination

The voluntary termination reason consists of several reasons such as the following:

Economic reason	Situation where customers are unable to afford to subscribe the service due to income and financial constraint.
Expensive rate	Situation where in the customers' view that the package is not attractive and expensive.
Leaving the company	This situation normally due to official phone given by customers' employer or subsidized bill for official purpose.
Leaving country	The situation normally due to customers intend to migrate or going overseas for certain time whether it is on official duty, studies or others.
Set lost / damaged / stolen	The situation where customers did not have the hard ware and decided to terminate the line.
Customer initiated	The situation where the customer insists to terminate for no valid reasons.
Network coverage	The situation where customers did not satisfied with the network coverage.
Refuse to give reason	The situation where customers refused to indicates any reason.
Network quality / congestion	The situation where customers experienced drop call or call failure that lead to frustration.

**Involuntary reason**

The involuntary terminations basically were done due to four major reason as indicates below:

Manual credit control due to payment aging	The situation where customer did not pay more than certain months and left the accounts with alarming outstanding.
Auto credit control due to payment aging	The situation where system will identify delinquent accounts after certain periods and characteristics and will automatically terminate the accounts.
Fraud subscription	The situation where customers misused the service by making illegal activities and make an attempt to avoid the charges via certain actions.
Exceed credit limit	The situation where the customers make use of the service heavily without proper notification and left the accounts unpaid.

**Conclusion**

Market saturation makes it difficult for subscription numbers to continue growing, even allowing for multiple SIM. Service providers not only compete among themselves but also with the Mobile Virtual Network Operator (MVNO) and other free services provided by government or private. The existing of new services over internet such as making call over applications have resulted a decrease in voice call usage in the industry. Public Wi-Fi services indirectly reduce the data consumption. The availability of Mobile Number Portability has given the bargaining power to customer especially to the pre-paid customer category. Service providers need to carefully identify their unique offering and lock the customers by giving positive customer experience towards the end of customer life cycle.

Table 9 : Comparison on available packages for pre-paid segment

<b>Starter Pack</b>	<b>Digi</b>	<b>Celcom</b>	<b>Maxis</b>
<b>Price</b>	RM10	RM5	RM10
<b>Preloaded Value</b>	RM7 (+RM3 X 3 Months)	RM3	RM5
<b>Validity</b>	7 days	5 days	5 days
<b>Free Internet</b>	Free 64kbps (1GB FUP) Free Social Chat at 64kbps	Free 64kbps (3GB FUP) Free 200MB Hi-Speed	Free 64kbps (3GB FUP) 100MB High-Speed
<b>Free Calls</b>	Unlimited for 3 Buddyz	20mins/SMS onnet	N/A
<b>Free SMS</b>	Unlimited for 3 Buddyz		N/A
<b>Call Charges</b>	30sen/min non-Buddyz	12sen/min all-net	24sen/min all-net
<b>SMS Rates</b>	8sen/SMS non-Buddyz	12sen/min all-net	7sen/SMS all-net
<b>Reload Bonus, Value and Validity</b>			
<b>RM5</b>	5 Days (Free 2 mins/SMS onnet)	5 Days (Free 50MB 5min/SMS onnet)	5 Days
<b>RM10</b>	10 Days (Free 5mins/SMS onnet)	10 Days (Free 100MB 10min/SMS onnet)	10 Days
<b>RM30</b>	30 Days (Free 15mins/ SMS onnet)	30 Days (Free 300MB 30min/SMS)	30 Days
<b>RM60</b>	60 Days (Free 30mins/ SMS onnet)		60 Days
<b>RM100</b>	120 Days (Free 50mins/ SMS onnet)		100 Days



### Post-paid plan comparison

Table 10 : Maxis post-paid plan

Telcos	MAXIS						
<b>Plan</b>	1 plan lite	1 plan		SM50	SM75	TM28	TM48
<b>Monthly commitment</b>	RM78	RM128	RM158	RM50	RM75	RM28	RM48
<b>Free Same Network Calls</b>	Limitless	Limitless	Limitless	-	-	200 min	400 min
<b>Free Other Networks Calls</b>	-						
<b>Free Same Network SMS</b>	Limitless					100 SMS	200 SMS
<b>Free Other Networks SMS</b>	-						
<b>Free Data GB</b>	1GB	2GB	3GB	2GB	5GB	-	-
<b>Calls Rate (Same Network)</b>	-	-	-	12sen/min		12sen/min	10sen/min
<b>Calls Rate (Other Network)</b>	15sen/min			20sen/min		15sen/min	15sen/min
<b>SMS Rate (Same Network)</b>	-			5sen/min		12sen/min	10sen/min
<b>SMS Rate (Other Network)</b>	10sen/min			15sen/min		15sen/min	15sen/min
<b>Data Add-on (optional)</b>	-	RM30/GB		RM10/ 0.5GB		RM18/0.1GB	
				RM15/1GB		RM28/0.2GB	
				RM50/5GB		RM38/0.5GB	
						RM48/1GB	

Source: [www.maxis.com.my](http://www.maxis.com.my)

Table 11 : Celcom post-paid plan

<b>Telcos</b>	<b>CELCOM</b>				
<b>Plan</b>	First 1GB	First 5GB	First Prime	First Premier	First Elite
<b>Monthly commitment</b>	RM68	RM88	RM40	RM80	RM150
<b>Free Same Network Calls</b>	60 min	60 min	266 min / SMS	666 min / SMS	1500 min / SMS
<b>Free Other Networks Calls</b>					
<b>Free Same Network SMS</b>	60 SMS	60 SMS			
<b>Free Other Networks SMS</b>					
<b>Free Data GB</b>	3GB	5GB	0.05GB	0.1GB	0.2GB
<b>Calls Rate (Same Network)</b>	20sen/min	15sen/min	15sen/min	12sen/min	10sen/min
<b>Calls Rate (Other Network)</b>					
<b>SMS Rate (Same Network)</b>	20sen/SMS	15sen/SMS	15sen/SMS	12sen/SMS	10sen/SMS
<b>SMS Rate (Other Network)</b>					
<b>Data Add-on (optional)</b>	RM3/0.1GB		RM28/0.3GB		
	RM10/0.5GB		RM38/1GB		
	RM15/1GB		RM58/3GB		
	RM50/5GB		RM88/5GB		

Source: [www.celcom.com.my](http://www.celcom.com.my)

Table 12 : Digi post-paid plan

<b>Telcos</b>	<b>DIGI</b>				
<b>Plan</b>	Simple	SP50	SP78	SP108	SP148
<b>Monthly commitment</b>	RM50	RM50	RM78	RM108	RM148
<b>Free Same Network Calls</b>	RM100 worth of calls and SMS	-	100min	300min	600min
<b>Free Other Networks Calls</b>					
<b>Free Same Network SMS</b>		200 SMS	100SMS	300SMS	600SMS
<b>Free Other Networks SMS</b>					
<b>Free Data GB</b>	-	2GB	3GB	5GB	6GB
<b>Calls Rate (Same Network)</b>	15sen/min				10sen/min
<b>Calls Rate (Other Network)</b>					
<b>SMS Rate (Same Network)</b>	10sen/SMS				10sen/SMS
<b>SMS Rate (Other Network)</b>					
<b>Data Add-on (optional)</b>	RM28/0.2GB				
	RM48/1GB				
	RM88/2GB				

Source: [www.digi.com.my](http://www.digi.com.my)

Table 13 : U Mobile post-paid plan

<b>Telcos</b>	<b>U MOBILE</b>					
<b>Plan</b>	U28	Unlimited 50	Unlimited 80	Unlimited 68	Unlimited 98	Unlimited 158
<b>Monthly commitment</b>	RM28	RM50	RM80	RM68	RM98	RM158
<b>Free Same Network Calls</b>	-	Limitless 100min	Limitless 200min	60min	100min	200min
<b>Free Other Networks Calls</b>						
<b>Free Same Network SMS</b>	100 SMS	-	50 SMS			200 SMS
<b>Free Other Networks SMS</b>	200 SMS		50 SMS			
<b>Free Data GB</b>	1GB	2GB	3GB	3GB	4GB	5GB
<b>Calls Rate (Same Network)</b>	18sen/min	-	-	18sen/min	18sen/min	18sen/min
<b>Calls Rate (Other Network)</b>	20sen/min	18sen/min	15sen/min	20sen/min	20sen/min	
<b>SMS Rate (Same Network)</b>	5sen/SMS					
<b>SMS Rate (Other Network)</b>	12sen/SMS					
<b>Data Add-on (optional)</b>	RM10/1.5GB/3 days					

Source: [www.u.com.my](http://www.u.com.my)

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