
The Impact of Mobile Number Portability on TUT students On-line Connectivity

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Abstract

The current cost of calls and interconnection rates in South Africa are perceived to be high and unnecessary unaffordable for the majority of the users. An assertion fully supported by ICASA – the communication regulatory body had since mandated all the telephone network operators to review and revised their call and inter-connection rates. To this end, Telecommunication industry in South Africa recently introduced a new functionality Mobile Number Portability (MNP) which presents the subscribers with freedom of changing a network provider without them having to change their mobile number. MNP is seen as a great opportunity which can increase acquisition and to a greater extent encourage healthy competition among telephone operators but the process, functionality, subsequent administration and maintenance is a complex one, involving the careful planning and balancing of factors such as cost, convenience, simplicity, speed, reliability, heterogeneous integration and robustness. The reduced tariff transparency, increased competitiveness and lower cost of call and inter-connection rate that would normally result from the introduction of MNP is a problem that could seriously affect the usability, affordability, on-line connection of mobile services for users and have great impact on the profit margin. Understanding impact and extents at which the students understand the implication of this project will inform the level of acceptability, promotes low cost mobile call rates and lower interconnection and on-line connection rate and charges, further enhanced their on-line activities and will be a major step towards implementing comprehensive on-line education in our institution.

Keywords: Mobile number portability, On-line connectivity, on-line education, System integration, Number Database, Porting, Mobile phone technology.

1. INTRODUCTION

No doubt, Information and Communication Technology (ICT) lies at the heart of business model for next century or more to come and the role of ICT in changing and shaping tomorrow's business operations is a distinctive one and cannot be over emphasized. According to (Bates, 1993), today's ICT solutions or service providers are facing series of complex challenges ever in trying to meet up with the requirement of building or enhancing enterprise ICT solutions to many facets of

organizational problems while remaining competitive and maintaining cost.

There is a high perception among mobile phone subscribers in South Africa that the current costs of calls and interconnection rates are very high and unnecessarily unaffordable for the majority of the populace. An assertion fully supported by ICASA – the communication regulatory body in South Africa and had since mandated all the telephone network operators to review and revise their call and inter-connection rates. To this end, the Telecommunication industry in South Africa

recently introduced a new functionality Mobile Number Portability (MNP) which according to (Nilsson, 2006) presents the subscribers with freedom of changing a network provider without having to change their mobile number. MNP is seen as a great opportunity which can increase acquisition and to a greater extent encourage healthy competition among telephone operators and promotes low call and interconnection rates.

Nilsson (1997) reiterated that MNP involved series of complex internal and external application integration. Here, we are talking about IT infrastructure that comprises of a number of heterogeneous systems and customized applications. Without doubt it was essential that they implement Web-based integration platform to support most of their important protocols which enabled applications to communicate. For MNP to be successful, it required the internal applications to be properly integrated with external applications known as the central reference database of customers. (Earl 1995) describes system integration and its very nature as an objective to be striven. (Nilsson, 2005) emphasizes that MNP process, functionality, subsequent administration and maintenance is a complex one, involving the careful planning and balancing of factors such as cost, convenience, simplicity, speed, reliability, heterogeneous integration and robustness.

The tariff transparency, increased competitiveness and lower cost of call and inter-connection rate resulting from the introduction of MNP is a problem that could affect the usability, affordability, on-line connection of mobile services for users and have impact on the profit margin. This study is adequately informed from the fact that most of our students are now turning to the use of mobile phone as an alternative for on-line connectivity. The recent study by (Odunaike 2010) reveals the use of mobile phone for on-line connection by students was at 19%, second to the use of facilities provided by faculty of ICT as 63%. Understanding the impact and extent to which the students understand the implication of MNP, this project will inform the level of acceptability, promote low cost mobile call rates, lower interconnection and on-line connection rate and charges, further enhanced their on-line activities and will be a major step towards implementing comprehensive on-line education

in our institution. This leads to our research question:

Is number portability worth the effort and how does it impact on our students on-line connectivity?

Hence the main aim of this research is to determine the effect of MNP on on-line connection of TUT students. Furthermore and towards answering our research question, the following section 2 will present the details of MNP and benefits thereof, the advantages and disadvantages of MNP and the prospect of mobile phone as a technology for on-line education. Section 3 will discuss the research methodology. Section 4 will present the findings of this research while section 5 will make informed conclusion and recommendations on the impact of MNP on our students' on-line connection and the future mobile phone technology toward achieving e-learning education in our institutions.

2. LITERATURE REVIEW

2.1 Mobile Number Portability

Bates (1993) reiterates that there are numerous problems and challenges in proffering ICT solutions to meet up with today's business requirements. And as long as these organizations are trying to meet up with the demand of IT solutions in their respective organization, there will always be great demand to meet the goals and objectives of new or established business.

These problems notwithstanding, we believe that ICT still hold the thrust that can drive organizational impending changes and help streamline operations, exploit new business opportunities and globalizing production operations. They were quick in envisioning scenarios like IT networking geographically distant work groups together, distributed decision making system and engaging new product and service markets, providing quality customer relational management (CRM). The South African mobile industry and service providers decided on Mobile Number Portability as functionality to increase competition and maximise choice.

According to (Nilsson, 2006) number portability implementation would require the network operators to first identify all internal

systems that would be impacted by this change and then resolve the method to use for routing the calls from an originating network to the mobile network associated with a given mobile number. He emphasized there are broadly two methods available for the routing of calls in a MNP environment:

- Routing of a call directly from the originating network to the correct terminating mobile network, which requires the former network to determine what is the appropriate network for a given number (ALL CALL QUERY). The mobile network that was originally associated with a given number is involved in the routing of a call to the correct terminating mobile network.
- The second method can be further divided into several different forms:
 - The mobile network originally associated with the called number identifies the correct terminating mobile network and routes the call onward to that network (ONWARD ROUTING).
 - The mobile network originally associated with the called number checks if the number is ported and if it is, it releases the call back to the originating network together with information identifying the correct terminating network (CALL DROP BACK).
 - The mobile network originally associated with the called number identifies that the number is ported and returns a message to the originating network indicating that the number has moved. The originating network then queries a database to obtain information identifying the correct terminating

network (QUERY ON RELEASE).

The ONWARD ROUTING is often regarded as the simplest routing method to implement and is also regarded as cheaper to establish than the call query method. In contrast, the ongoing costs associated with the ALL CALL QUERY method are usually regarded as less than those of the ONWARD ROUTING method, and the costs associated with the other two methods lie between those of ALL CALL QUERY and ONWARD ROUTING.

It was pointed out by (Nilsson, 2005) that the implementations of MNP involve the use of databases containing information of the entire network which ports their numbers. This information is used in routing a call to a ported number, which is usually a routing number that can be used to enable a call to a ported number to be routed to the correct mobile terminating network. The Number databases are typically managed in either a centralized or a distributed manner.

2.2 The Porting Procedure

To identify the person requesting MNP is valid and authorized to carry out the process, an authentication procedure is built into MNP processes. This is implemented in such a way that it is convenient for the users at minimum bearable processing time. The most important variables are according to (Nilsson, 2005) are:

- Whether authentication is performed via reference to account records, it relies on some form of documentary evidence supplied by the person requesting the port (such as a utility bill).
- Who performs the authentication — for example, the entity that receives the porting request, or the donor network operator or service provider
- How communication occurs between the various parties which are involved in authentication process — for example, electronically, by fax, or by letter; and
- The level of trust between the various parties involved in a

porting request, which itself may influence the need for an effective reversal procedure in the event that an unauthorised porting occurs.

An incomplete porting request can be caused when the requesting party cannot be authenticated, or two porting requests are received for the same number, or the number is not associated with an active service provided by the donor. The status for refusal may differ according to whether the grounds for refusal are specified in regulation, or in the contract between the end user and the donor provider. Other grounds for refusal include:

- The term of the user's service contract is not complete
- An outstanding debt is associated with the user's account
- The user has a SIM-locked handset
- The handset is recorded as stolen
- The national defence reasons
- Technical obstacles.

2.3 Mobile Phone and Prospect in On-line Education

The Mobile phone is regarded as one of the most widely used pieces of equipment today. It has undergone a tremendous improvement since the concept of using hexagonal cells for Mobile phone stations was invented in 1974 by Bell Labs engineers at AT&T and was further developed in 1960s. It should be recalled, Radiophones have a long and varied history that dated back to the Second World War when the military stated to use radio telephony links and civil services in the 1960s, coupled with hand held cellular radio devices being available since 1983. Since then, it has become a household commodity and force to be reckoned with due to their low costs and rapid deployment. Mobile phone networks have spread rapidly throughout the world outstripping the growth of fixed telephony or computer acquisitions or Internet connectivity combined.

A Mobile or Cellular telephone is defined by (Moss 2004) as a long range, portable electronic device for personal

telecommunications over long distances. In addition to the standard voice function of a telephone, the current set of mobile phone can support many additional services such as SMS – Short Message Service for text messaging, emails, packet switching for access to the Internet and Multimedia Messaging Service (MMS) for sending and receiving photos and video. The mobile technology has evolved progressively from the use of laptop, to the use of notebook, to the use of voice recording tape, to the use of PDA – Personal Digital Assistance, and now to the use of mobile phone. These technological advancements have over the years created the possibility for new ways of teaching and learning.

The emergence of the mobile phone as a pipeline for teaching and learning will have a profound effect on the manner in which the students learn and in which the lecturers teach. (Hayes, P et al. 2004) identified that the Mobile phone technologies can be categorized into four groups, viz:

- Media player technologies
- Copy protection technologies
- Content transfer technologies
- Content storage technologies

The media player technologies includes, Web/WAP browsers, HTML browsers, Java player, Flash player, Audio player, Movie player, e-Book reader While the transfer technologies connection via a mobile operator network (GRPS & 3G), connection via local wireless network (wireless LAN, WiFi), connection via Bluetooth or infrared and transfer via memory card. The storage technologies on the other hands includes internal memory and external memory alike, for example, the compact Flash card, Memory card, Secure Digital Cards, Multimedia Cards, e.t.c. We could argue that all these associated technologies can be a prospective tools and applications for purposeful usage or supplement in on-line educational initiatives.

No doubt, the potential of Mobile phone for educational application is very vast, huge and affordable. (Baker, 2000) reiterates that students can for instance uses updated educational application on their phones at their own convenience. They can share learning outcomes in respective of their geographical

location using features like emails, blogging, video streaming, SMS, MMS. On the other hands, the lecturer may as well use the Mobile phone initiatives to distribute information to the student e.g. test date, personal tailored examination scopes and quizzes and so on. In addition, the Mobile phones may allow the lecturer to place information that goes beyond text and take full advantage of the media that will help the students understand better and to which they can relate more easily e.g. graphical or pictorial or video clip.

2.4 Mobile Phone Limitation as On-line Education Technology

Mobile phones are highly popular all over the world. South Africa in particular has a vibrant Mobile market that has seen a rapid uptake of Global System for Mobile communications (GSM) since the competition began over 10 years ago. With market penetration exceeding 75%, data from Wireless World Forum's "South Africa Mobile Market" statistical handbook shows that there will be close to 30 million South African mobile phone owners by 2007 more than Canada and Australia markets combined. The current population statistics show that South Africa has 50 million people, Canada 33.3million and Australia 22.5 million. According to (NCTE, 2007) a mobile phone is a handheld device that allows messages (text, voice and multimedia) to be sent to another phone or group of phones. The more advance mobile phone has the ability to send and receive emails and access an environment similar to the internet. Notably, mobile phones consist of number of intricate components such as SIM (Subscriber Identification Module), circuit board, display screen, keyboard, micro phone, speaker, battery and antenna.

A position by (Bates, 1993) is that there are adequate rewards and prospect for Mobile phones technology in technology enhanced on-line Education, and there are reasons why the use of Mobile phones in the formal classroom education has not been gaining the required momentum and as such has not been widespread. It was concluded by (Hayes *et al.*, 2004) that the current generation of Mobile phone devices are still limited by several inhibiting factors, he highlighted that the reasons include the following but not limited to:

- Small screen size
- Non-ergonomic input method

- Limited memory

Amidst technological advances, decrease in cost, continuous innovative functionality and capabilities, Mobile phones are far gaining momentum and are emerging as a viable option and tool for on-line education. Although, their small screen size can have an effect on the types of activities they will support, their portability, mobility, interactivity and most recently, their internet connectivity and enhancement expand other options and possibilities for research in on-line learning. Hence the case and justification for this research work in pushing for technological enhanced on-line education.

3. RESEARCH METHODOLOGY

3.1 Sampling method

Towards the goals of determining the Impact of Mobile Number Portability on TUT students' on-line connectivity, we have presented the evaluation mobile phone availability, knowledge and their view on Mobile Number Portability functionality. In line with (Dix, Finlay, Abowd, & Beale, 1998) which states that the best way to find out how a system meets users' requirement and expectation is to 'ask the user'; it is very important we receive feedback from users on the effects of Mobile Number Portability. Therefore, in this section, we would find out from the students, lecturers and technical staff how MNP has affected their choice of Network and on-line connectivity.

Survey was used as the query techniques to obtain information from the respondents. It needs to be noted that the use of questionnaires is an inexpensive way to gather data from potentially large number of respondents. In our opinion, we believe that it is the only feasible way to reach quite a number of reviewers large enough to allow statistical analysis of the results.

3.2 Survey Population

The population for this survey is the students from ICT faculty of TUT. Also included in this survey are the lecturing staff, support staff and academic assistant. The population is drawn from the second level and Btech (post diploma) students studying Information and Communication Technology course.

An observation by (Leedy & Ormrod, 2001) is that rather than sampling a large number of people with the intent of making generalizations, qualitative research tends to select few participants who can best shed light on the phenomenon or study under consideration. Therefore, the above suggests that convenient sampling of the population is highly favoured and would be more appropriate in this study.

3.3 Survey data collection and analysis

The scalar style of questions was used. This is an adoption of the Likert technique. (Corbetta, 2003) stated that (Likert, 1932) proposed the scaling at the beginning of 1930s. The style expects the user to judge a specific statement on numeric scale of 1 to 5, usually corresponding to a measure of agreement or disagreement and may be in ascending or descending order of importance. It is perceived better that the most positive response must be mapped with the highest digit on the scale. Also, a "Yes" or "No" question was included to get affirmative answer from the respondent.

The analysis for the survey data will be done by collating, grouping and manually counting of the survey. The analyzed results are presented in tabular form. Pictorial analysis using chart will also be used.

4. ANALYZING THE IMPACT OF MOBILE NUMBER PORTABILITY ON TUT STUDENTS ON-LINE CONNECTIVITY

4.1 Analyzing the Survey Results per Question

One hundred and sixty (160) questionnaires were sent out; one hundred and forty four (144) representing 90% responses were received. Hence the computation and evaluation will be based on the 144 returned survey. All the sections of the questionnaire will be discussed and analyze separately. Inferences will also be drawn on each of the questions.

4.2.1 Analysis of Survey Results in Section A

A1 Gender grouping / composition

Gender	Respondent	%
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Male	91	63
Female	53	37
Undecided	0	0

Table 4.1: Graphical survey results summarizing the gender distribution.

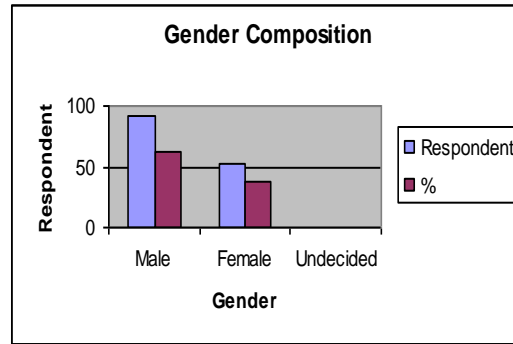


Figure 4.1: Graphical survey results summarizing the gender distribution.

Evaluation:

The results show that the questionnaire was fairly distributed among the gender and as evident from the graph depicted in table 4.1 and it equally reflect the gender composition of our classroom. The impending results from this study would reflect the general feelings that surpass issues of gender inequalities.

A2 Respondents grouping / composition

Respondents Group	Respondent	%
Lecturers / Admin	21	15
Students	118	82
Undecided	5	3

Table 4.2: Tabulated survey results showing personnel distribution of questionnaire

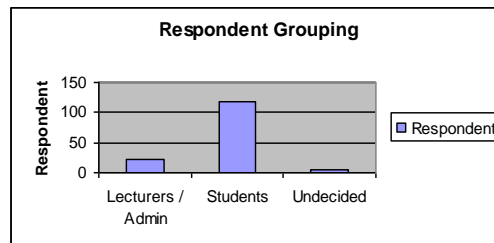


Figure 4.2: Graphical survey results depicting the distribution of questionnaire among respondents

Evaluation:

The response rate was 97% comprising of 15% Lecturer/Admin/Assistants, 82% Diploma and post Diploma students. The low response rate from Lecturer and Admin group could be attributed to the timing of distributing the questionnaire as it coincided with the examination period. We guessed that most of them are busy with examination schedules. Otherwise, the positive response from the students was welcomed and it's all that we need to move forward.

A3 Level of studies composition

Level	Respondent	%
Diploma	61	42
BTech	79	55
MTech	0	0
Undecided	4	3

Table 4.3: Tabulated result showing specialization responses to the questionnaire

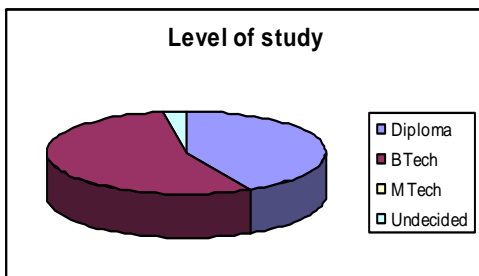


Figure 4.3: Graphical survey result depicting different specialization responses to the questionnaire

About 55% post diploma (Btech) students responded against 52% respondents of diploma students. The Btech students were specifically included in this survey so that we could tap in their experience and exposure (most are working class) on MNP and functionality.

4.2.2 Analysis of Survey Results in Section B

The question in this group was presented in order to evaluate the availability of mobile phone and respondents' knowledge and understanding of MNP.

B1 Do you have own Mobile phone?

Have Mobile phone?	Respondent	%
Yes	141	98
No	3	2
Undecided	0	0

Table 4.4: Tabulated survey results showing respondents owning Mobile phone.

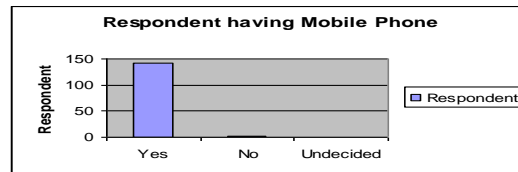


Figure 4.4: Graphical survey result showing respondents owning a Mobile phone.

Evaluation:

Amazingly, 98% respondents are having Mobile phones and this confirms the vibrancy of the Mobile Phone market in South Africa as stated earlier in the paper. It also confirms the Mobile Phone as one of the most popular hand-held devices in the world and further confirms it as a powerful new means of communication that is global, fast and growing rapidly making the world seemingly smaller and more connected, transmitting information at nearly real-time speed. We suggest that on-line connectivity and capability provided by this technology would a major boost for on-line education case.

B2 Which Network provider?

Types of Network	Respondent	%
VODACOM	92	64
MTN	50	35
CELLC	10	7
OTHERS	1	1

Table 4.5: Tabulated survey results showing distribution of Networks among TUT students.

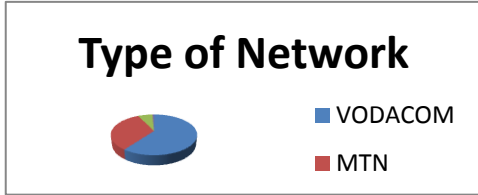


Figure 4.5: Graphical survey depicting distribution of Mobile Phone Networks among TUT students

Evaluation:

The majority of the respondents 64%, are subscribed to the Vodacom network, closely followed by the MTN network with 35%. The other mobile network providers share the remaining spots. The leading duo are enjoying clear leads as Mobile Phone Network / services provider probably because they entered the market long enough before the others. We noticed that some of the respondents are subscribing to more than one Network

B3 Are you aware of MNP?

Aware of MNP?	Respondent	%
Yes	109	76
No	35	24
Undecided	0	0

Table 4.6: Tabulated survey results showing respondent level of awareness of MNP.

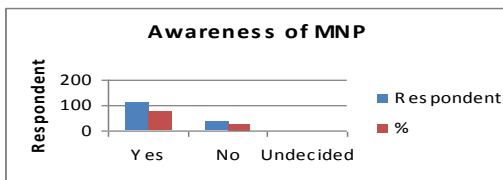


Figure 4.6: Graphical survey result showing respondent level of awareness of MNP

Evaluation:

It was recorded that only 24% of the total respondents were not aware of the MNP. It goes to show that the majority of the respondents have good working knowledge and understanding of the implication and objectives of MNP functionality.

B4 Internet Connection using Mobile phone

	Respondent	%
Yes	129	90
No	15	10
Undecided	0	0

Yes	129	90
No	15	10
Undecided	0	0

Table 4.7: Tabulated survey results of respondents connecting to Internet through Mobile phone.

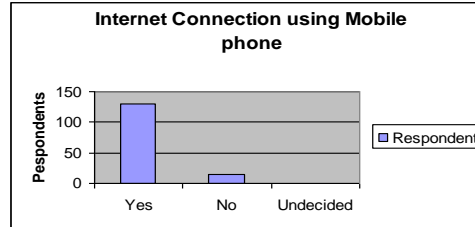


Figure 4.7: Graphical survey depicting respondents connecting to Internet through Mobile phone.

Evaluation:

As shown in table 4.7 above, the majority representing about 90% of the respondents have connection to internet using their Mobile phone. This is another plus for implementing on-line Education in our curriculum because the problem associated with on-line connectivity, a stumbling block in realizing on-line Education has diminished fast with internet connectivity technology offered by Mobile phone.

B5 Have you Ported Before?

	Respondent	%
Yes	39	27
No	105	73
Undecided	0	0

Table 4.8: Tabulated survey results showing respondent who have ported their numbers before.

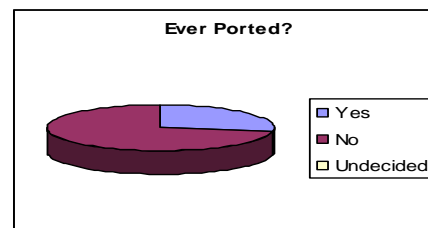


Figure 4.8: Graphical survey result depicting respondent who have ported their numbers before.

Evaluation:

Despite the tremendous awareness enjoyed by MNP, it is regrettable to note that most respondents however have not invested time to port their numbers. In our opinion, we think the majority of the respondents might have seen MNP functionality as a minimal cost control feature rather than absolute solution to the ever rising call and inter-connection rate. In other words, it failed to gather the much needed trust among respondents.

B6 Number of times you ported?

How many times Porting?	Respondent	%
Once	18	13
Twice	6	4
3 Times	4	3
> 3 times	12	8
Never	103	72
Undecided	1	1

Table 4.9: Tabulated result showing porting rate of respondents.

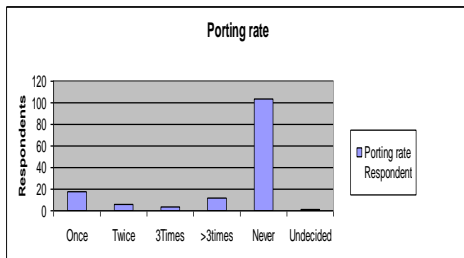


Figure 4.9: Graphical survey result depicting the rate of porting by respondents.

Evaluation:

Most of the respondents constituting about 72% have never contemplated porting their number despite being informed of the flexibility and numerous offers of MNP. Others have ported as it suits them and for different reasons.

B7 Reasons for Porting?

Reasons for Porting	Respondent	%
Low call cost	27	19
Low Internet cost	12	8
Low call + Internet call	46	32
Better Promo	15	10
No reason	44	31
Undecided	6	4

Table 4.10: Tabulated results showing why respondents will ports their numbers.

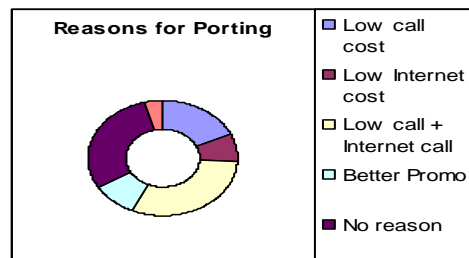


Figure 4.10: Graphical survey result depicting reasons why respondents will ports their numbers.

Evaluation:

Most of the respondents about 59% in all would have ported because of low call or low internet cost rate or a combination of both. However, about 35% have no reason whatsoever to port their number while others in this category would have ported for the quality of network and availability or just to explore for the benefits of doubt.

B8 Is MNP a worthwhile project?

A worthwhile project?	Respondent	%
Yes	104	72
No	34	24
Undecided	6	4

Table 4.11: Tabulated results showing whether MNP is worth the efforts?

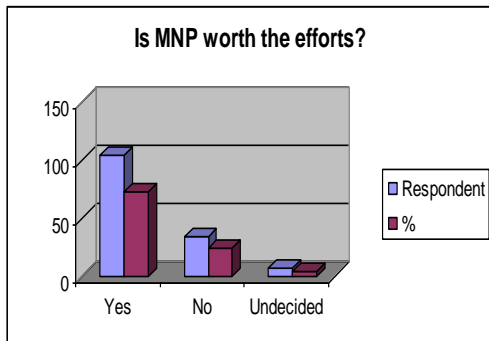


Figure 4.11: Graphical survey result depicting whether MNP is worth the efforts?

Evaluation:

Despite the evidence of high level of MNP awareness (76%) among the respondents and resultant evidence in different direction indicating un-reconciliatory attitudes (73%) towards porting their number, many still believe it is a worthwhile project at least in increasing the level of healthy competitiveness among service provider, coupled with dwindling cost of call and interconnection rate – a prospect for on-line education. The concerns now are amidst the effects on profit margin, there is likelihood for employer to contemplate reducing working force – a bad indicator for the economy.

5. CONCLUSION

It was argued by (Laxton, 2002) that making a business proposition or informed business decision is not about acquiring the state of the art technology or having creative Internet technology interface or huge transaction capabilities rather it is about redesigning business processes to instigate value proposition to customer and employee, re-aligning internal business processes, efficient and effective way of using and sharing business information at a reduced cost. No doubt, the idea that prompted the design of MNP is great, but implementation did not gather the required momentum, according to the survey, it is not widely accepted as lasting solution for our high call and interconnection rates but rather as a “quick fix”. The call and inter connection rates are still on the high side and cut short the promise to deliver on-line education.

However, MNP created a healthy and vibrant competition among the Mobile phone Service

providers with each striving hard to maintain and retain its customer base. The competition comes as a boost for online-education struggling connectivity rate and availabilities. The majority of the respondents have in the past used mobile phone technology and internet connectivity enhancement for facilitating the on-line connectivity, a major and decisive factor in e-education. In addition to its standard voice function, the current set of mobile phone can provide and support many functional services like SMS – Short Message Service for text messaging, emails, packet switching for access to the Internet and MMS for sending and receiving photos and video – all of which can be explored for future implementation of technology enhanced on-line education in our Institution.

There is evidence of little or no participation of MNP among TUT students. We could argue that the threats poised by MNP functionalities regarding the loss of customer base automatically have great impact on the costing which in turn impacted on the high online connectivity rate among TUT students. They have come to realize that internet connection through mobile phone can offer flexible and powerful new ways to accomplish a range of wide goals that have been long important and resourceful in schools, such as gaining access to universal information resources and accessing vital information on-line to improve their quality of the education at a lower cost, any time, any where.

We recommend that we move forward in our quest for implementing on-line education and probe, besides its mobility, flexibility, affordability as a communication tool, how the availability of a common technology offered by Mobile phone (Not built for educational purposes) could be possibly become an effective integral part of teaching and learning and how the Mobile phone internet connectivity could impact on teaching and learning process in general. It is our opinion that adding Mobile phone technology initiatives with e-learning could increase the number of students who participate in on-line education and somehow, this may have positive effect on improving the student-learning outcome and strengthen our call for Technological enhanced e-learning.

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Appendix A

QUESTIONNAIRE

The Impact of Mobile Number Portability on TUT students On-line Connection

JUNE, 2010.

Brief Introduction

No doubt, Information and Communication Technology (ICT) lies at the heart of business model for next century or more to come and the role of ICT in changing and shaping tomorrow's business operations is a distinctive one and cannot be over emphasized. Today's ICT solutions or service providers are facing series of complex challenges ever in trying to meet up with the requirement of building or enhancing enterprise ICT solutions to many facets of organizational problems while remaining competitive and maintaining cost.

There is a high perception among mobile phone subscribers in the country that the current cost of calls and interconnection rates are very high and unnecessary unaffordable for the majority of the populace. An assertion fully supported by ICASA – the communication regulatory body and had since mandated all the three telephone network operators to review and revised their call and inter-connection rates.

To this end, Telecommunication industry in South Africa recently introduced a new functionality Mobile Number Portability which presents the subscribers with freedom of changing a network provider without them having to change their mobile number. Mobile Number Portability is seen as a great opportunity which can increase acquisition and to a greater extent encourage healthy competition among telephone operators.

Understanding impact and extents at which the students understand the implication of this project will inform the level of acceptability, promotes low cost mobile call rates and lower interconnection and on-line connection rate and charges

Please kindly complete this questionnaire based on your intuition, knowledge and personal experience mobile phone usage. Your participation is highly welcome. Thank you.

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SECTION A - contains sectional information to be used for grouping in order to obtain heterogeneous composition. Please mark the appropriate category with an X						
A1	Gender	Male	<input type="checkbox"/>	<input type="checkbox"/>	Female	<input type="checkbox"/>
A2	Technicians / Academic Assistant / Lecturers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4	Present level of study	<input type="checkbox"/>	NDIP	BTech	MTech	<input type="checkbox"/>
SECTION B - contains information to determine the availability of Mobile phone. Please mark the appropriate category with an X						
B1	Do you have your own mobile phone?	<input type="checkbox"/>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
B2	Which Network did you subscribe to?	VODA	MTN	CELL C	OTHERS	<input type="checkbox"/>
B3	Are you aware of Mobile Phone Number Portability?	<input type="checkbox"/>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
B4	Apart from making calls, Have ever use your phone for internet connection?	<input type="checkbox"/>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
B5	Have you ever ports your mobile number to other Network operators?	<input type="checkbox"/>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
B6	How many times have you port your number?	ONCE	TWICE	3 TIMES	MORE THAN 3TIMES	NEVER
B7	Why would you port your Mobile number to other Network operator?	Low Call cost	Low interne t cost	Low call and Internet cost	For Better Promo offers	No Reason
B8	Do you think Mobile Number Portability is worth it any way?	<input type="checkbox"/>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
	Recommendation	<input type="text"/>				

Thank you for your time and co-operation.