

Why gsm tech is more preferred than cdma tech in yemen



**ASSIGN
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I am honored to prepare this research paper titled “ Why GSM Tech is more preferred than CDMA Tech in Yemen”. And I would like to pay my special thanks to Dr. Murad Abstract The cellular industry is in Yemen dominated by two technologies - Global System for MobileCommunication(GSM) and Code Division Multiple Access (CDMA). This paper will provide an overview of the two different technologies and will focus on why people in Yemen preferred to use GSMtechnologyrather than CDM technology A even though CDMA technology introduced after GSM with more privileges. Chapter 1

Background Introduction The mobile industry in Yemen is divided between the two technologies GSM and CDMA. While the earlier service providers had adopted the GSM technology, the new players have been using CDMA technology and have notched up a significant share of the Yemen market.

The number of subscriber’s mobile industry has increased significantly since 2001. The first company lunched in Yemen introduced the GSM technology which was the only choice for Yemenis people to grant, but in 2005 another company has been launched by the government introduced the CDMA technology which provides a better service for the clients with privileges to overcome the GSM technology. After around five years a big number of people have subscribed to CDMA, but GSM has still demonstrated the market with a bigger number of subscribers until nowadays. It is necessary for us to understand the basic differentiation of the two technologies as they may have an impact on the subscribers. GSM stands for Global System for Mobile Communications, one of the leading digital cellular systems. It uses narrowband TDMA, which allows eight simultaneous calls on the same radio frequency. GSM digitizes and compresses data, then sends it down a channel

with two other streams of user data, each in its own time slot. It operates at either the 900 MHz or 1800 MHz frequency band.

GSM was first introduced in 1991. As of the end of 1997, GSM service was available in more than 100 countries and has become the de-facto standard in Europe and Asia. CDMA stands for Code-Division Multiple Access, a digital cellular technology that uses spread-spectrum techniques. Unlike competing systems, such as GSM, that use TDMA, CDMA does not assign a specific frequency to each user. Instead, every channel uses the full available spectrum. Individual conversations are encoded with a pseudo-random digital sequence. CDMA consistently provides better capacity for voice and data communications than other commercial mobile technologies, allowing more subscribers to connect at any given time, and it is the common platform on which 3G technologies are built. Problem Statement The tendency of choosing GSM technology over the CDMA in Yemen is very obvious. Thus, there is a need to identify the factors that can influence the choice patterns of either GSM technology or CDMA technology as well as why consumers prefer to choose GSM rather than CDMA even though CDMA has more privileges and uses advanced techniques.

Objectives Our main objectives of this study are as follows: To identify and analyze the factors that can influence the choice patterns of either GSM technology or CDMA technology. To investigate the relationship between those factors. To find out why GSM is more preferred than CDMA.

Significance of the Study This research will help to recognize the factors that lead to the lack of use of CDMA technology in Yemen, as well as this study, can contribute to the body of knowledge by examining the different variables

and implement them. Scope of the Study The scope of this study is basically limited to the consumers of the mobile industry in Yemen.

Chapter 2

Introduction

This chapter will bring a clear idea about the factors that can influence consumer choices such as perceived services quality, choice of the handset as well as international roaming and their relationship. In addition, some previous researches will be included. Consumer Choice The GSM Association is an international organization founded in 1987, dedicated to providing, developing, and overseeing the worldwide wireless standard of GSM. CDMA was established earlier and thus has a bit more coverage than GSM. However, GSM networks continue to make inroads in Yemen. There are camps on both sides that firmly believe either GSM or CDMA architecture is superior to the other, Richard (2009) stated that there is no clear winner in the CDMA and GSM it all depends on your needs. There are many factors that could influence consumer choice patterns, different factors have different influence on consumer, and these factors should be taken into consideration in order to formulate consumer choice patterns. The mobile sector must focus on customer satisfaction as serious marketing strategies.

Nadine (2001) examined that attitude of the respondents using cell phones was not influenced by either education or occupation and income. Haque (2007) suggested that coverage, service quality, data transfer speed, and choice of handset play the main role during the time to choose either GSM or CDMA technology. Chris (2006) noted that in recent years the

telecommunications market has witnessed major developments, with rapid expansion in access to telecommunications networks and a surge in the number of available services and applications. While many factors have contributed to the transformation of the telecommunications industry, competition has played a key role in driving the telecom industry to develop new techniques, to innovate and to offer new services. With the advent of cellular phones doing double and triple duty as streaming video devices, podcast receivers, and email devices, Simon (2007) Stated that speed in data transfer is important to those who use the phone for more than making calls. Another thing advertisement can take a place when choosing technology Kalpana (2006) found that advertisements play a dominant role in influencing the customers.

Perceived Service

Quality Perceived service quality defined as a global judgment or attitude relating to the superiority of the service and it's the rank to which the technology provides key customer requirements and how reliable those requirements are delivered (NQR, 2001). Basically consumers are adapted to the services that either GSM or CDMA could provide Kumar (2005), in his study analyzed that, services play a major role in the telecom industry are the most active and attractive. In addition, the quality of service is driving of choice Seth et al (2006), in his study analyzed that there is the relative importance of service quality attributes and showed that responsiveness is the most important dimension followed by reliability, customer perceived network quality, assurance, convenience. The development of a reliable and valid instrument for assessing customer perceived service quality for cellular

mobile services. Pointed out that customer choice is achieved through good qualitative and quantitative services. Customer choice normally can indicate to customer response to the state of satisfaction and customer opinion of satisfied condition. Palkar (2004) proposed that perceived services are an important factor that has a greater influence on customer choice. (Serkan 2005) determined that the balance of power between service quality and customer satisfaction with an emphasis on these two constructs is the concept that is different from the view of customers. Zeithaml and Bitner, 2002, indicated that both service quality and customer satisfaction have some things in common.

Furthermore, Fornell et. al. , reported that satisfaction is a consequence of service quality. Choice of handset Liu (2002) found that the choice of a cellular phone is characterized by two attitudes: attitude towards the mobile phone brand on one hand and attitude towards the network on the other. Samuvel (2002) observed that most of the respondents consider coverage area, quality of services are important factors for selecting either GSM or CDMA while the majority of the respondents are considered that choice if the handset is the most important factor. Kalus stated that If you travel a lot to foreign countries, then the GSM phone is better for you. Also, Santos(2006) indicated that GSM phones work more widely across the world than do CDMA models. International Roaming This is when you connect to an overseas network and calls are routed via that network provider instead of your home provider. Johson(2002) defined roaming as an extension of connectivity service in a location that is different from the home location where the

service was registered. Roaming ensures that the wireless device is kept connected to the network, without losing the connection.

Roaming allows mobile wireless customers to automatically make and receive voice calls, send and receive data, or access other services, including home data services when they are outside of the area covered by their provider's network regardless of their location. Forneil(2004) stated that roaming plays a major role in the quality of GSM/CDMA technology, Susan J. stated that there are a number of different technology trends, but most significant is the rise of mobile roaming. Hypotheses The Hypotheses are developed based on Literature Review mentioned earlier to describe the relationship among these variables that influence consumer choice. H1: There is a positive/significant relationship between perceived services quality and consumer choice. H2: There is a positive/significant relationship between international roaming and consumer choice. H3: There is a positive/significant relationship between the choice of the handset and consumer choice.

Chapter 3

Methodology

Source of Data The study was undertaken to be mainly based on primary data and secondary data. The primary data is collected directly from the target respondents through a structured questionnaire and a personal interview. The secondary data for the study is collected from different sources such as technical and trade journals, articles, newspapers, magazines, the internet, books, reports.

RESEARCH DESIGN

First and the most important phase in determining the method of this research is the designing phase. This phase should be given serious attention to make sure that the research can be done without mistakes. Designing includes choosing the best method for collecting, measuring, analyzing data. A quantitative method such as a survey method has been used for collecting data. Research Framework Perceive service quality Choice of Handset Choice of Technology International Roaming 8 Population and Sampling Research The population of this study is all the consumers who have a cellular phone which a huge amount of number, in this case, we use Exploratory and Random sampling to analyze data? Data Collection The data is collected randomly irrespective of the category of the people in the form of a questionnaire and the sample size is 100 respondents. Because it is a pilot study and due to time constraints the sample size is small.?

Data Analysis From the questionnaires we have distributed we got the following results:

- Q1) which technology do you use? Technology GSM CDMA No. of respondents 78 22 90 80 70 60 50 40 30 20 10 0 GSM CDMA 9 Interpretation: Above data analysis shows that majority of the consumers that are approximately 78% are covered by GSM technology. Based on this result we trying to know why GSM is more preferred.
- Q2) Overall, how would you rate you both technologies? GSM CDMA EXCELLENT GOOD 40 25 18 22 AVERAGE 13 20 FAIR 10 20 40 35 30 25

20 15 10 5 0 excellent Good Avg Fair GSM CDMA Interpretation: From the graphic, it depicts that GSM is the most excellent technology. 10

- Q3) Rank the following factors which influenced you the most: Roaming QoS Choice of handset 92 8 DATA SPEED 32 68 Range of coverage 41 59 GSM CDMA 67 22 62 38 100 90 80 70 60 50 40 30 20 10 0 roaming Service handset coverage GSM CDMA Interpretation: Above data analysis shows that GSM is being preferred because of its services, the choice of the handset and the strength of roaming. Where CDMA is preferred because of its good range of coverage. 11
- Q4) Rank the following Service which attracted you the most for tour choice either GSM or CDMA Brand GSM CDMA SMS Pack 60 40 Call rate 45 65 Internet 70 30 Other 67 33 70 60 50 40 GSM 30 20 10 0 SMS call rate Internet other CDMA Interpretation: from the chart above it shows that GSM is more preferred from because of its aspects of the services. Where CDMA is preferred because of its call rate. 12
- Q5) How satisfied are you with your choice of GSM/CDMA technology? Brand GSM CDMA Very satisfied 35 20 satisfied 60 30 Neutral 0 15 dissatisfied 0 0 60 50 40 30 20 10 0 very satisfied Neutral dissatisfied GSM CDMA Interpretation: Above data analysis shows that the satisfaction rate of technology is led by GSM as not a single user of service is neutral or dissatisfied. On the other hand, CDMA seems to be well satisfied with zero dissatisfies but there are around 15 respondents who are neutral. Conclusion As per my analysis I noticed that the main factors that make GSM technology more preferred are the mobile choice of the handset and the quality of service regardless of the range of coverage and the price rate. Another thing I noticed is

the mobile choice of the handset and the value of service has a strong relationship Conclusion of the topic is that maturity of customers is using GSM technology because of its good network roaming availability and quality of services and the wide choice of handset.

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