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A comparison of Internet Cafés Users in Saudi Arabia

Abstract:
Internet service in Saudi Arabia (SA) was introduced on the 19th of December 1998. This article is to compare the internet services and users of internet Cafés in 1999 with the internet services and users of internet Cafés in 1994. The study shows us that at the beginning of the internet service in KSA the service seemed to lag behind the needs of its users. However, since then up till now the internet service has been improved and the study shows us that the users have become more satisfied in 1994. This is particularly so with respect to connection speed to the internet. This article reviews the steps that have been taken to improve the internet services bandwidths and infrastructures at the beginning of its introduction to KSA. The spread of internet cafés in SA is also discussed. A survey is conducted on a sample of internet cafés' users in Riyadh, SA. Several descriptive statistics related to users of the internet cafés in Riyadh are provided. The study shows us that the users in the internet cafés become younger, singles, and students. The ratio of internet cafés users, especially in intermediate and secondary school level have increased. In addition, the usage of internet applications such as email, chat and so on has become more ideal. For instance, the usage ratio of email has increased while the usage of chatting has been decreased. In addition, the study shows us that the quality of the machines in the internet cafés has been increased. Finally, non parametric tests have been carried out to test whether there are differences occurred in year 2004 than in year 1999 and Mann-Whitney Test has been chosen.

Keywords: Saudi Arabia (SA), internet cafés, bandwidths, internet Service Providers (ISPs), Mann-Whitney Test.

Introduction

Internet is considered the most comprehensive and largest source of information in the world. It consists of millions of smaller computer networks such as universities, research centers, private companies, governments, and military agencies. As a result of the expansion in the geographical area and increase in the number of people who use this new technology, "internet Cafés" started to spread all over the world.

Internet cafés are originally defined as the places where one can have some coffees, drinks, and snacks while hooking up with the internet. These cafés were established to meet the needs of those who have neither regular subscription nor access to the internet through their business or home. They aimed to assist people to spend their spare time in developing their knowledge about computing in general and accessing the information on the superhighway

Importance of the study

The importance of this study stems from the fact that the subject is relatively new and important to the people. In addition, and as far as the author knows, this study may be the first one of its type in Saudi Arabia (SA). Therefore, the researcher hopes that decision makers in SA may find in it some useful information related to the internet cafés and their users in SA.

Study objectives

This study aims to find answers for the following questions:

- Did the internet cafés and internet services in general meet the expectations of its users in SA?
- Who are the users of the internet cafés in SA?
- What applications do those users are using?

Study tools

To carry out this study, the author has designed a questionnaire. To ensure that the questionnaire is neither biased nor ambiguous, it was shown to more than one specialist in the field of quantitative methods. In addition, the questionnaire was written in both Arabic and English and was also read by a specialist in translation. The questionnaire was distributed randomly to the users of internet Cafés in Riyadh. The total number of questionnaires that distributed was about 800 in year 1999 and 450 in year 2004. However, the total numbers of questionnaires that received was about 782 responses in 1999 and 393 responses in year 2004.

The start of these internet cafés in the Kingdom of Saudi Arabia coincided with the beginning of the internet Services in the Kingdom, which goes back to the 19th of December 1998. King Abdulazziz City for Science and Technology (KACST) was authorized to manage the service.

Now the internet cafés have spread all over SA notably in Riyadh, and the other large cities. In Riyadh, it has been noticed that every district in the city has at least one internet café, and as our survey showed, there are 168 internet cafés.

Literature review

The number of internet cafés has increased explosively as the number of new users of the internet increased. In Bangalore, India, or as it is now known, the Silicon Valley of the east, there were only three internet cafés in 1997. However, in the year 2000 the number of internet cafés have jumped to more than 700 cafés (Elwyn, C, 2000), [1] The cafés offer instant , cheap communications and unlimited information to users. The demand for the service has encouraged businessmen to invest in internet cafés. For instance, Stelios Haji-Ioannou has billed the 12th in a chain Easyeverything internet café in New York City. It is the largest of its kind that housed 1000 state-of –the art Pcs connected to the Net via lightning-fast broadband lines (Nicholas Stein, 2000)[2] In addition internet cafés became a competitive advantage to some companies against their competitors. For example, Norwegian Crouse Line Ltd (NCL) added the first sea born internet café in August 1999. This internet access has become a competition not only in marketing against other cruse lines, but also with resort hotels (Bob Brewin., 2000) [3] Even in countries such as Yemen, internet has begun in September 1996. According to a study carried out in 1999, about 50% of the subscribers have subscribed in 1998 in Yemen (Jerjes., M., and Alsnbany, A 1999)[4]

In Saudi Arabia, there was a study discussed the needs of the internet users in Riyadh. The findings of the study showed the following: Most users use the internet to locate knowledge, sentimental, social. Entertainment, or for commercial purposes. The average time a user spends on the internet ranges between 1 hour to 5 hours. Most of the users use that internet alone. Users use the internet most of the time at home or in the internet cafés but not in work. The internet has decreased the time reading the newspapers, but has not affected the time that users spending listening to Radio or watching TV. Most of the users are in the undergraduate level(Alfarm, Khalid F., 2001).[5]

The importance of the internet Cafés in SA come from the benefits that they give to these youths who have a plenty of spare times. They utilize these spare times in developing their technical skills in using the internet. In addition, there are some gains to these youths from gathering in these internet cafés as they can exchange their knowledge and experiences in this new world" the world of the internet". However, there are some drawbacks of their usage such as getting to phonographs , hackers, and crackers.

There are five types of services that these users get from an internet café. First, it trains users to learn how to use computers in general. Second, it trains users to learn how to use the Internet, such as email, browsing, chatting, and other internet services. Third, it gives users access to the internet. Fourth, it offers special training to its users in special subjects related to computers and internet. Fifth, it offers snacks and drinks along with these computing functions.

The internet Service Unit (ISU) at the KACST has selected up to 40 companies to serve as internet Service Providers (ISPs).[6] These companies have met the minimum requirements ISU imposed upon companies to be selected to provide this service. In addition, the Saudi Telecommunication Company (STC) provide the infrastructures for the internet connection to the rest of the world.

Connection to the world

The first connection to the internet, took place in October 1998 has used an E1 type provided by Uunet company. However, the public access was not wildly available until January 1999 (Al-Tawial, 2001).[7] The capacity of the bandwidth was 2048 kilobyte per second (2048 kbps). In Jan 1999 another E1 type was added to increase the capacity up to 4096 kbps. In march 1999 two E1 types by Uunet and two E1 types by France Telecom were added to increase the capacity up to 12288 kbps. Five E1 types connections by Teleglobe have been added in April 1999 to achieve a 22528 kbps, then in August 1999 , four E1 types of link were added by the same company to increase the capacity to 30720 kbps. In December 1999, a E3 connection type has been installed by Teleglobe company to increase the capacity up to 65536 kbps. Finally, in Augusts 2000, an STM-1 connection type has been added to the service to increase the capacity up to 222208 kbps (Azoman, 2000) [8].
Saudi Telecommunication Company (STC) connected the ISPs through 5000 modems , each of which has a speed of 512kps.

All information going or coming through these lines flow through a proxy service controlled by the ISU. The purpose of this proxy is to protect the society from materials that do not fit with the Saudi values or the security of SA. A committee was assigned this task under the name" Committee of the internet Security" . The committee consists of 12 deputies from 12 different ministries headed by a deputy from the ministry of Interior. This committee has contracted with special companies to classify and identify internet sites that showed not be browsed by Saudi citizens.

Saudi Telecommunication Company (STC) has increased its capacity to the internet up to 155 mega bite per second (mbps) using a sea cable. This cable increased the capacity to three times that in august 2000.

Network Capacity.

The ISU has distributed the modem ports equally between the ISPs. Therefore, each ISP has been given 125 modem ports. The ISU has left the ratio of subscribers to the modem port opened to each ISP. However, the ISU has suggested that the best ratio of subscribers to each modem port should be 5:1 for a better quality of service to subscribers. In addition, a good service would be achieved if the ratio is around 10-12:1. But, the ISU would not allow the ISPs to increase the ratio of subscribers to the modem ports to exceed 20:1 in any case.

Price Policy

The ISU at KACST imposes a price range within which the ISPs can charge each subscriber. It ranges from 100 to 240 SR a month. In addition, since the maximum number of users that each ISP can take is 1250 users, the overall maximum number of users that all ISPs can take is nearly 50000 users. This figure was based on what ISU has suggested to maintain the good service level. However, this number is considered too small compared with the estimated demand, which will stimulate the ISPs to accept more than the suggested number of users per modem port. Therefore, the ISPs would increase the number of subscribers , which in turn will increase the

traffic of information and reduce the quality of access to the internet. On the other hand, the price that Saudi Telecommunication Company (STC) has charged for the connection to the internet is 7.5 Halala per minute (double the charge for the ordinary phone calls). The high price imposed by STC was meant to meet the high investments paid in building its infrastructure. In addition, the STC receives 408,000 SR monthly from ISU for each EI line. This monthly price is considered very high compared to International prices.

Improvement of services

The ISU proposed some measures to improve the internet services in SA. To prevent the slow connection to the internet, the ISU speculates to allow the ISPs to use one way Satellite connection like what the Zaknet is doing with their users. However, there is a technical problem related to that, which is how to control the information that go using the "Push" technique. Also the STC started to increase the number of modem ports, which will allow more users to connect to the internet at the same time. Below we provide a summary of the basic findings of the survey with respect to various variables:

1- Connection:

Based on our survey 38% of the internet cafés used Dial-Up in 1999 comparing with 36% in 2004. This means the usage of Dial-Up connection decreases by 2% during this period. However, the usage of Leased line has decreased sharply by 37% in year 2004 than it was in 1999. This sharp decreased was caused by introducing the new way of connection "DSL", which took up to 34% share of the total. The following table shows the frequencies and their percentages:

Table I - Connection Type

	1999		٢٠٠٤		
Connection Type	Frequencies	Percentages	Frequencies	Percentages	changes
Dial-Up	294	38%	141	36%	-2%
Leased Line	488	62%	97	25%	-37%
DSL	0	0%	132	34%	+34%
No answer	0	0	23	6%	+ 6 %
Total	782	100%	393	100%	

2- Age:

The survey shows that 20% of these interviewed are less than 20years old since 1999 up to now. Also, 50% of them were between 20 to25 years of age since 1999. However, the ratio of users less than 30 years and older than 25, has increased by 6%. In addition, the number of users that are older than 30 years has decreased by 3%, which gives an indication that the users of internet cafes have become younger. Table II shows these results:

Table II- Age

	1999		٢٠٠٤		
Age:	Frequencies	Percentages	Frequencies	Percentages	changes

Less than 20 years	156	20%	78	20%	0%
20 - 25	391	50%	197	50%	0%
25 - 30	116	15%	82	21%	+ 6%
30- or more	78	10%	28	7%	- 3%
No answer	40	5%	8	2%	- 3%
Total	782	100%	393	100%	

3- Nationality

The study shows that the ratio of Saudis has decreased by 8%, while the umber of non-Saudis as increased by 3% of the total users. This can be inferred as it is result of the decrease of the in ternate prices that these internet cafes charge for an hour. It become now usual to see workers and other non-Saudis using internet to contact there relative abroad. Table III shows these results:

Table III – Nationalities

	1999		٢٠٠٤		
Nationalities	Frequencies	Percentages	Frequencies	Percentages	changes
Saudis	704	90%	322	82%	- 8 %
Non- Saudis	78	10%	51	13%	+3%
No answer	0	0%	20	5%	+5%
Total	782	100%	393	100%	

4- Social Status.

The study shows that ratio of married users has decreased by 8%, while the ratio of singles has increased by 4%. This finding coincide with the previous finding that the users of internet cafes have become younger. The frequencies and their corresponding percentages are as follows:

Table IV- Social Status

	1999		٢٠٠٤		
Social Status.	Frequencies	Percentages	Frequencies	Percentages	changes
Married	235	30%	88	22%	-8%
Singles	547	70%	290	74%	+4%
No answer	0	0%	15	4%	+4%
Total	782	100%	393	100%	

5- Monthly Salary.

It is found that 30% of the users in 1999 and 44% in 2004 have a monthly salary less than SR 1000 per month. This means that the ratio of this class has increased by 14% than it were in 1999. This was due to the increased in the younger users such as students in Elementary and Secondary school levels. While the ratio of those who have a monthly salary that ranges from SR 1000 to less than SR 2000 has decreased by 8%, and 9% decrease for those between SR 2000 and less than SR 4000. Whoever, it is found that there is 2% increase of users between SR 4000 to less than SR 7000, and 6% increase for those who have salary SR 7000 and more. The following table shows these results:

Table V- Monthly Salary

	1999		٢٠٠٤		
Monthly Salary (Saudi Riyals).	Frequencies	Percentages	Frequencies	Percentages	changes
Less than 1000	235	30%	171	44%	+14%
1000-2000	196	25%	67	17%	-8%
2000-4000	156	20%	44	11%	-9%
4000 - 7000	54	7%	37	9%	+2%
7000 and more	78	10%	63	16%	+6%
No answer	63	8%	11	3%	-5%
Total	782	100%	393	100%	

6- Job.

Interestingly the study shows that between 54% to 58% of the users are students since the internet introduced in KSA. This means that the ratio of the students among the users were more than half of the population. 18% are government employees with no increase, and 18% employed by business sector with 16% increase than in 1999. The ratios of retires , self-employed, and jobless, have decreased by 6%, 14%, and 1% respectively. The following table shows these results:

Table VII – Job

	1999		٢٠٠٤		
Job	Frequencies	Percentages	Frequencies	Percentages	changes
Students	416	53%	228	58%	+5%
Government	134	18%	69	18%	0%
Business	17	2%	71	18%	+16%
Retired	50	6%	1	0%	-6%
Self-Employed	143	18%	15	4%	-14%
Jobless	14	2%	4	1%	-1%
No answer	8	1%	5	1%	0%
Total	782	100%	393	100%	

7- Education Level

The survey shows that the ratio of users in elementary school has dropped by 1%, the ratio of users at intermediate school level has increased by 5%, and the ratio of users in secondary schools also has increased by 12%. However, the ratio of users at undergraduate level has decreased sharply comparing with it in 1999 and the ratio of users in postgraduate level still the same. The following table shows us frequencies and their corresponding percentages:

Table VIII - Education Level

	1999		٢٠٠٤		
Education Level	Frequencies	Percentages	Frequencies	Percentages	changes
Elementary School	12	2%	5	1%	-1%
Intermediate School	47	6%	44	11%	+5%
Secondary School	211	27%	153	39%	+12%
Undergraduate	477	61%	169	43%	-18%
Postgraduate Level	12	2%	8	2%	0%
No answer	8	1%	14	4%	+3%
Total	782	100%	393	100%	

8- Importance of the internet

According to the survey we found that about 28% to 30% of the users said that the internet is important to people, while 65% to 64% of the users said the internet is very important. However, 5% to 4% said that the internet is not important. This means that the majority of the internet users feel that the internet is very important. The following table shows us these results:

Table VIIII - Important Of The internet

	1999		٢٠٠٤		
Important Of The internet	Frequencies	Percentages	Frequencies	Percentages	changes
Unimportant	39	5%	19	4%	-1%
Important	219	28%	116	30%	+2%
Very Important	508	65%	252	64%	-1%
No answer	16	2%	6	2%	0%
Total	782	100%	393	100%	

9 -Applications that the users use

The Survey shows us that the usage of the intranet in year 2004 become wiser and more optimal than in year 1999. This can be interpreted by the increase of the usage of email and browsing by 8% and 1% respectively. In addition, the usage of the chatting has dropped sharply by 10%. The other applications that the users used also increased by 5%. These applications are vary from windows applications to other applications that introduced after year 1999, such as SMS and Shares. The following table shows us these frequencies and their corresponding percentages:

Table X – Applications

	1999		٢٠٠٤		
Applications	Frequencies	Percentages	Frequencies	Percentages	changes
Email	335	25%	236	33%	+8%
Browsing	477	35%	256	36%	+1%
Chatting	494	36%	184	26%	-10%
Others	48	4%	34	5%	+1%
Total	1354	100%	710	100%	

10-Average time spent in the internet.

The survey shows that the ratio of users spends less than 2 hour daily is almost the same. However, the ratio of users spends 2 hours and less than 3 hours has decreased by 9%, while the ratio of users spends more than 3 hours has increased by 5%. The following table shows these results:

Table XI - Average time spent in the internet

	1999		٢٠٠٤		
Average time spent in the internet .	Frequencies	Percentages	Frequencies	Percentages	changes
less than 1 hour	145	19%	77	20%	+1%
1- 2	289	37%	150	38%	+1%
2- 3	229	29%	77	20%	-9%
More than 3	104	13%	70	18%	+5%
No answer	15	2%	19	5%	+3%
Total	782	100%	393	100%	

11-Quality of the Services provided

A- Personal computers (PCs):

The quality of the machines in the internet cafés are classified as bad, good, very good, and excellent. 10% of the users in year 1999 and 2004 said that they are bad. However, the ratio of users who said that these PCs are good, has decreased by 9%, while the ratio of users who said that they are very good and excellent has increased by 2% and 4% respectively. This means that the users in year 2004 tend to be satisfied by the condition of the PCs more than in year 1999. The overall results show that the quality of the machines in the internet cafés has improved. The following table shows us these frequencies and their corresponding percentages:

Table XII- Quality Of The Machines

	1999		٢٠٠٤		
Quality Of The Machines	Frequencies	Percentages	Frequencies	Percentages	changes
Bad	78	10%	40	10%	0%
Good	391	50%	163	41%	-9%
Very Good	230	29%	121	31%	+2%
Excellent	78	10%	54	14%	+4%
No answer	5	1%	15	4%	+3%
Total	782	100%	393	100%	

B- Communication speed

The results of the study show that the ratio of users that were unsatisfied with the communication speed has dropped sharply from 35% in 1999 to 15% in 2004. This shows us that the unsatisfaction ratio has decreased by 20%. The ratio of users who think the communication is good are almost still the same. However, the ratio of users who see the communication speed is very good and excellent is increased by 13% and 10% respectively. The following table shows these results:

Table XIII- Communication speed

	1999		٢٠٠٤		
Communication speed	Frequencies	Percentages	Frequencies	Percentages	changes
Bad	276	35%	57	15%	-20%
Good	285	36%	138	35%	-1%
Very Good	126	16%	113	29%	+13%
Excellent	49	6%	64	16%	+10%
No answer	46	6%	21	5%	-1%
Total	782	100%	393	100%	

C- Technical knowledge of the people in cafés.

Based on the survey we found that the users checked the bad answers were between 10% to 12%, with increase by 2%. The users said the technical knowledge of the people in these internet cafés is good were between 37 to 35 percent, wich makes 2% decrease in 2004 than in 1999. However, the ratio of users who said very good has still the same, and the ratio of users said that the knowledge of the employees in these cafés is excellent has decreased by 3%. The following table shows us frequencies and their corresponding percentages:

Table XIV- Technical Knowledge of the People in Cafés

	1999		٢٠٠٤		
Technical Knowledge Of The People In Cafés	Frequencies	Percentages	Frequencies	Percentages	changes
Bad	78	10%	49	12%	+2%
Good	289	37%	136	35%	-2%
Very Good	235	30%	117	30%	0%
Excellent	156	20%	67	17%	-3%
No answer	24	3%	24	6%	+3%
Total	782	100%	393	100%	

This means that the quality of the service is somewhat acceptable both in 1999 and 2004, since the results are distributed normally. However, the speed of the communication tends to be unsatisfactory in 1999, and then it becomes acceptable in year 2004.

Hypotheses Tests

Non parametric tests have been carried out to test whether there are differences occurred in year 2004 than in year 1999. Two Factors have been chosen to examine the claim that there is a difference during this period of time. These factors are the "Users' Age" and the "Type of connection" in these two years. Since that these two factors were independent and arranged in an ordinal way, therefore, Mann-Whitney Test has been chosen to measure the existent of differences or non existent and to what extent. In Mann-Whitney hypothesis testes, there is one null hypothesis, and there are three alternative hypotheses.

The null hypothesis: There is no difference between the mean of the two samples.

The alternative hypotheses are:

There is a difference.

$y1 < y2$ where y1 is the sample mean in year 1999 and y2 is the sample mean in year 2004.

$y1 > y2$

In order to test these hypotheses a Minitab software version 14 has been used. Since that it is friendlier in carrying out non parametric hypothesis tests than SPSS does.

Users' Ages

First Test.

The first test is to examine the average ages of the internet cafés users between year 1999 and year 2004, whether it still the same, increase, or decrease. The following are the hypothesis testes and the results shows by computer. The null hypothesis is there is no change in the average ages between these two samples, and the alternative hypothesis is there is a significant difference between the average ages of these to samples. The test was carried out at 95% confident Interval (i.e. 5% significant level). The following table shows us the test result:

Table XV, Mann-Whitney Test and CI: Age1999; Age2004

N Median
Age1999 770 2.0000
Age2004 385 2.0000
Point estimate for ETA1-ETA2 is 0.0000
95.0 Percent CI for ETA1-ETA2 is (-0.0000;0.0000)
W = 456022.0
Test of ETA1 = ETA2 vs ETA1 not = ETA2 is significant at 0.0402
The test is significant at 0.0259 (adjusted for ties)

The above result shows us that the calculated value > the table value, which means that the calculated value occur in the rejection side with 95% Confident interval. This also, means that the average value of the first sample (taken in 1999) either greater or smaller than the average value of the second sample.

Second Test.

In this test, the null hypothesis is as before, however, the Alternative hypothesis states that the average age of the internet café users in year 1999 is less than the average age of the internet café users in year of 2004. The following table shows us the result of this test:

Table XVI, Mann-Whitney Test and CI: Age1999; Age2004

	N	Median
Age1999	770	2.0000
Age2004	385	2.0000
Point estimate for ETA1-ETA2 is 0.0000		
95.0 Percent CI for ETA1-ETA2 is (-0.0000;0.0000)		
W = 456022.0		
Test of ETA1 = ETA2 vs ETA1 < ETA2		
Cannot reject since W is > 445060.0		

The above table reveals to us that the null hypothesis has not been rejected, and the claim that the average ages of the users in year 1999 is less than the average ages of the users in year 2004 has been rejected. Therefore, from the two previous testes we can say that the average ages of the internet café users in year 1999 are not neither equal nor more the average ages of the internet café users in year 2004.

Third Test.

Although that the two previous testes indicated logically that the following test is significant, the test was curried out just to confirm this indication. In this test the null hypothesis is still the same, but the alternative hypothesis states that the average age of the internet café users in year 1999 is more than the average age of the internet café users in year 2004. Also, the result of this test has been shown in the following table:

Table XVII, Mann-Whitney Test and CI: Age1999; Age2004

	N	Median
Age1999	770	2.0000
Age2004	385	2.0000
Point estimate for ETA1-ETA2 is 0.0000		
95.0 Percent CI for ETA1-ETA2 is (-0.0000;0.0000)		
W = 456022.0		
Test of ETA1 = ETA2 vs ETA1 > ETA2 is significant at 0.0201		
The test is significant at 0.0130 (adjusted for ties)		

The over all result of the above three type of tests shows us in no doubt that the average ages of the internet café users has decreased significantly in year 2004 compared with those of year 1999.

Connection Type

The Second factor that has been examined was the "Connection type of the Internet cafés". The first following test shows us that there is a significant difference between the ways that these internet cafés connect to the Internet in year 1999 than in year 2004. The following table summarizes these results:

Table XVIII, Mann-Whitney Test and CI: Conn1999; conn2004

	N	Median
Conn1999	733	2.0000
conn2004	356	2.0000
Point estimate for ETA1-ETA2 is -0.0000		
95.0 Percent CI for ETA1-ETA2 is (0.0000;-0.0000)		
W = 388717.0		
Test of ETA1 = ETA2 vs ETA1 not = ETA2 is significant at 0.0270		
The test is significant at 0.0201 (adjusted for ties)		

The second test for this factor shows us that the connection type of internet cafés in year 1999 is not better than in year 20004. The following table shows us the results for this test:

Table XIX, Mann-Whitney Test and CI: Conn1999; conn2004

	N	Median
Conn1999	733	2.0000
conn2004	356	2.0000
Point estimate for ETA1-ETA2 is -0.0000		
95.0 Percent CI for ETA1-ETA2 is (0.0000;-0.0000)		
W = 388717.0		
Test of ETA1 = ETA2 vs ETA1 < ETA2 is significant at 0.0135		
The test is significant at 0.0100 (adjusted for ties)		

The previous two tests show us that the connection type of internet cafés in year 1999 is not equal to but slower than the connection type of internet cafés in year 2004. The last test, also, confirm the findings that the connection type of internet cafés in year 1999 is slower in its speed and older in its technology. The following table shows us these results

Table XX, Mann-Whitney Test and CI: Conn1999; conn2004

	N	Median
Conn1999	733	2.0000
conn2004	356	2.0000
Point estimate for ETA1-ETA2 is -0.0000		
95.0 Percent CI for ETA1-ETA2 is (0.0000;-0.0000)		
W = 388717.0		
Test of ETA1 = ETA2 vs ETA1 > ETA2		
Cannot reject since W is < 399485.0		

Conclusions:

1- It has been found that the beginning of the internet services in KSA was not satisfactory to the internet cafés users, due to the bad connection to the net and due to the humble machines that been used in those cafés. However, in 2004 the study shows us a deep increase in the satisfaction ratio and increase of unsatisfaction level among the users. This improvement was caused in part by the introduction of new ways to connect to the net using a DSL technique. This technique made the speed of the connection to the internet become very high.
2- The study shows us that the average age of the users in internet cafes become younger than what it was in 1999. This result too coincides with the increase in the ratio of students among the internet cafés user, especially in intermediate and secondary school level. In addition, it coincides with the increase in the ratio of singles than the married users among the internet users. All these results support each others in confirming that the users of internet cafés now become younger than in 1999.
3- In addition, the study shows us that there is a change in the usage of internet applications since 1999. These application that the users usually used are email, chat, browsing, and so. The usage ratio of chatting in year 2004 was decreased by 10% than it was in 1999, while the usage ratio of email in increased by 8%. Since that spending time in chatting is considered as something unfruitful habit, and all companies usually disable this service from its employees to make them more productive. This means that the usage of internet applications becomes more and more ideal.

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