Analyzing Consumer Attitudes Towards Internet of Public WiFi and Mobile Connectivity: A Case Study at the Faculty of Economics Campus in Setif 1 University

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Abstract:
Nowadays, internet connectivity is vital for daily activities and communications within educational institutions. The aim of this study is to explore consumer attitudes towards Public WiFi and Mobile Connectivity at the Faculty of Economics Campus, Setif 1 University in order to gain valuable insights that can guide strategic choices and improve user experiences.
Research methodology involved hypothesis testing and statistical analysis focusing on factors such as: internet speed; duration and limitations on its use; reliability; security/privacy concerns. The study confirmed a positive attitude about Public WiFi based on its availability for free and dependability, though it has occasional speed and coverage limits. On the other hand, Mobile Connectivity was faced with issues regarding speed variation, unpredictable reliability and discrepancy in terms of coverage stretches across different parts of campus.
Different attitudes towards Public WiFi and Mobile Connectivity indicated that users had varied preferences and experiences. Recommendations include upgrading infrastructure for Public Wi-Fi, addressing unreliability issues in Mobile Connectivity as well as raising awareness concerning security threats present in public WiFi networks.
Keywords: Consumer attitudes; Internet services; Mobile Connectivity; Public WiFi; Faculty campus.
JEL Classification Codes: D12, M31, L96.

ملخص:
تعتبر الانترنت وسيلة اتصال ضرورية، بالأخص لدى المؤسسات التعليمية، لذلك هدفت هذه الدراسة الى تحليل اتجاهات سلوك المستهلك نحو خدمات الانترنت عبر شبكة الوايفاي العمومي أو شبكة الهاتف المحمول/ من أجل الحصول على معلومات تتيح متخذي القرار من تحسين تجارب زبائنهم على مستوى المحيط الداخلي لهذه المؤسسات.
تم تحليل الاتجاهات واختبار الفرضيات من خلال مجموعة من الأدوات الإحصائية والتي ركزت على تحليل آراء المجيبين نحو كل من السرعة الانترنت، مدة ومحدودية الاستعمال، الموثوقية، إضافة إلى الأمن والخصوصية، أين توصل الدراسة إلى وجود اتجاهات إيجابية نحو الانترنت المتاحة عبر شبكة الوايفاي في بهو كلية العلوم الاقتصادية والتجارية وعلوم التسيير بجامعة سطيف1، خصوصا وأنها متاحة بشكل مجاني، لكن تبقى سرعتها محدودة. بالمقابل، توصلت الدراسة إلى أن انترنت الهاتف النقال تشوبها مجموعة من النقائص أهمها ضعف سرعة الانترنت ونقص مجال التغطية ومستويات الوصول. كما توصلت الدراسة إلى وجود فروقات ذات دلالة إحصائية بين اتجاهات المجيبين نحو شبكة الوايفاي العمومي وشبكة الهاتف النقال تبعا لتجاربهم المختلفة. لذلك توصب الدراسة بتوسعة نطاق التغطية لشبكة الهاتف النقال وزيادة الوعي بضرورة اتخاذ الاحتياطات الضرورية أثناء استعمال شبكة الوايفاي العمومي.
كلمات مفتاحية: اتجاهات سلوك المستهلك، خدمات الانترنت، الوايفاي العمومي، شبكة الهاتف النقال، الحرم الجامعي.
تصنيفات JEL: D12، M31، L96.

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1. Introduction

Internet connectivity has become an important part of people's daily lives today mainly due to technological advancement. This reliance on internet services is seen in educational institutions where students and faculty members depend on strong networks for purposes of research, teaching and learning, or even working together. The Faculty of Economics Campus of Setif 1 university, like many academic settings, recognizes the importance of providing reliable internet services, including Public WiFi, to support the academic endeavors of its community.

It is important to understand students' attitudes towards internet services for evaluating their effectiveness and identifying areas and know what needs improving upon. Consumer attitudes consist of multiple perceptions, likes, dislikes and opinions that affect the way a person interacts with a product or service. For instance at the Faculty of Economics Campus, it would be useful to investigate consumer attitudes towards Public WiFi and Mobile Connectivity in order to get insight into user satisfaction levels, expected performance levels as well as potential difficulties they may encounter. The main purpose of this study is to analyze the consumer attitudes towards Public WiFi and Mobile Connectivity are within the campus the faculty, considering that WiFi services are ***Free***. The following question serves as the problematic inquiry for this study: "*What factors contribute to variations in consumer attitudes towards Public WiFi and Mobile Connectivity within the educational setting of the Faculty of Economics Campus*?"

This lack of understanding, in totality, inhibits the ability to adequately meet user needs and improve internet services in order to improve user experiences.

The research hypotheses will use rigorous statistical analysis to test the extent of positivity and any significant differences between attitudes toward Public WiFi and Mobile Connectivity.

Valuable insights can be made from this study concerning the field of internet services in educational environments as well as recommendations for optimizing the quality and user experience of Public WiFi and Mobile Connectivity at the university Campus. Hence, these findings provide intelligence that can guide strategic decision making by internet service providers on how they can improve on the quality their internet services within campus, which are important to students and faculty members' expectations. Such insights enable service providers to identify where improvements could be made, address customer complaints or respond properly thereby improving overall consumer experience.

2. Literature review

The study of consumer attitudes is a significant area of research in marketing. These mental states are taught or acquired, and are relatively stable over time (Van Overwalle & Siebler, 2005), with all the same reactions to an object, a situation, a person or a group (Gordon Foxall, 2015). Verbal responses, behaviors and actions help in inferring these attitudes although they cannot be directly seen (J. M. Olson & Zanna, 1993; Van Overwalle & Siebler, 2005). The Three-Dimensional Model (ABC Model), is one prominent model used to describe consumer attitudes which suggests

attitudes consist of three interrelated components affective, behavioral, and cognitive (Michael, Bamossy, & Askegaard, 2006). Affective component also refers to emotions towards product/ brand (Peters & Slovic, 2007); behavioral component pertains to individual's behavior aspects vis-à-vis the given object or product while Cognitive component entails beliefs and what someone knows about the object or product (Breckler, 1984; Ostrom, 1969).

Several factors have been identified as influential in determining consumer attitudes, such as personal values and beliefs, cultural factors, social influences and marketing efforts (Bagozzi & Lee, 2002; Demirbaş, 2023; Pitts, Canty, & Tsalikis, 1985; Youn & Kim, 2008). However, this relation between attitude and behavior is not so straightforward since attitudes can influence behavior but behavior can also influence attitudes (KIM & HUNTER, 1993; Kraus, 1995; Kroesen, Handy, & Chorus, 2017).

It is not easy to change consumer attitudes because they are formed as a result of experience and acquired knowledge (M. a. Olson & Fazio, 2001; Van Overwalle & Siebler, 2005), but it can be influenced using persuasion in form of advertising (Friestad & Wright, 1994; Wood, 2000). Positive advertisements that resonate with consumers can lead to positive changes in attitudes towards the product or object (Batra & Stayman, 1990; Rupam Soti, 2022). Relevant theoretical frameworks, such as Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB), help explain the link between consumers' attitudes, intentions, and behavior (Paul, Modi, & Patel, 2016; Rutter & Bunce, 1989).

Consumer attitudes toward WiFi internet are closely entwined with security concerns and data protection especially in public settings like universities(Berba & Palaoag, 2018; Golbeck, 2017). Research indicates that users' concerns about data privacy, illegal access and network vulnerabilities significantly affect their attitudes towards WiFi services.

Also, users who consider public WiFi network as trustworthy or safe are more likely to have positive attitudes towards them, and also feel confident enough to be able to engage in different online activities via this network. On the other hand, fear of security breaches, data interception or identity theft may discourage users from using public WiFi or giving up on its use altogether (Choi, Carpenter, & Ko, 2022).

These problems should be tackled by educational establishments such as universities through implementing measures such as secure network settings, encryption protocols and authentication mechanisms (Zhan & Wong, 2017). Consequently, these efforts made by the universities do not only enhance WiFi security but also affect the quality of WiFi services as perceived by the users themselves regarding trust in the service provider(Alnajim, Habib, Islam, AlRawashdeh, & Wasim, 2023).

Moreover, compliance with regulatory frameworks such as GDPR and CCPA underscores the importance of data protection and privacy, shaping users' attitudes towards WiFi services and fostering a sense of security and confidence when accessing public networks (BUKATY, 2019). Effective communication, being transparent about security practices and educating on cybersecurity contribute to

building Trust and positive attitudes concerning WiFi quality as well as data protection in universities.

In addition to security and data protection concerns, consumer attitudes towards WiFi quality are formed by a range of factors that encompass technical performance, accessibility, and overall user experience (Alnajim et al., 2023). For example, in university environments, internet speed is a significant determinant of user satisfaction with WiFi services. Studies have consistently shown that users prioritize fast and reliable internet connections, especially when accessing bandwidth-intensive applications or engaging in online learning activities (Ahn, Lee, Lee, & Kim, 2006). Slow speeds or inconsistent connectivity can lead to frustration and negative perceptions of WiFi quality, influencing users' attitudes and usage behavior.

Moreover, the availability and coverage of WiFi networks play an important role in influencing consumer attitudes (Sangwan & Singh, 2015). Users expect inclusive coverage across campus premises, including classrooms, libraries, and outdoor areas, to facilitate seamless connectivity and uninterrupted access to online resources. On the other hand, low network coverage or dead zones might generate dissatisfaction and impact on a user's attitudes towards reliability and convenience of WiFi.

Ease of use and convenience are also key determinants of consumer attitudes towards WiFi quality. User-friendly interfaces, straightforward authentication processes, and intuitive network configurations contribute to positive experiences and enhance users' attitudes towards WiFi services. Conversely, complex setup procedures, frequent authentication prompts, or technical glitches can create barriers and lead to negative perceptions of WiFi usability and effectiveness (Porter & Donthu, 2006; Reyes-Menendez, Palos-Sanchez, Saura, & Martin-Velicia, 2018).

Furthermore, the responsiveness and effectiveness of technical support mechanisms influence consumer attitudes towards WiFi quality. Prompt resolution of connectivity issues, timely updates on network maintenance, and access to knowledgeable support personnel contribute to a positive user experience and foster trust in the WiFi service provider (Porter & Donthu, 2006; Reyes-Menendez et al., 2018).

A combination of factors including internet speed, availability, ease of use, and technical support collectively shape consumer attitudes towards WiFi quality in university environments. Understanding these factors and addressing user expectations are essential for universities to maintain high levels of user satisfaction and trust in their WiFi services.

3. Method

This study employs a deductive and quantitative approach through a survey methodology. Surveys are research instruments utilized to gather information about a specific subject from a sample of respondents using a survey (Sreejesh, Mohapatra, & Anusree, 2014). They bridge academia and practical application by allowing the testing of conceptual models with real-world data (Jabbour, Jugend, De Sousa Jabbour, Gunasekaran, & Latan, 2015). The research empirically explores the attitudes of students at the Faculty of Economics, Setif 1 University.

3.1 Hypothesis:

The main purpose of the research is to determine the student's attitudes towards internet services (Public WiFi and Mobile Connectivity) in the campus of faculty, and also to identify and analyze the factors that is dominant in influencing these attitudes.

H1: The consumer's attitude towards Public WiFi in the campus of faculty are positive.

H2: The consumer's attitude towards Mobile Connectivity in the campus of faculty are positive.

H3 : There are statistically significant differences in consumer attitudes towards Public WiFi and Mobile Connectivity.

The attitudes in the current study are measured using the self-description method, based on their previous experiences, especially since previous experiences have a significant impact on building or changing attitudes towards a specific topic. Therefore, through respondents' previous experiences, they can express their attitudes towards the internet available at the faculty campus.

3.2 Procedure

Due to the existing gap in previous research, the survey instrument was tailored to align closely with the contextual nuances of the study. Specifically, components of the survey instrument on attitudes toward internet connectivity were adapted from scales proposed by (Berba & Palaoag, 2018) and (Kim & Hwang, 2012), covering aspects such as Accessibility, Speed, Duration and Limitation, and Reliability of Access (Dependability, Consistency, and Stability). Additionally, the author introduced items related to Security and Privacy, recognizing their serious significance in the realm of public Wi-Fi as highlighted in the literature review.

All items were operationalized using a Likert-type scale with five response options (Barksdale & Darden, 1972), ranging from 1 (completely disagree) to 5 (completely agree) (Sreejesh et al., 2014). The agreement levels were measured according to the mean of responses as follows:

Table 1: Agreement degree

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
01 → 1.80	1.81 → 2.60	2.61 → 3.40	3.41 → 4.20	4.21 → 05

Before administering the comprehensive survey, four professors were invited to evaluate the measurement instrument for face validity, and they confirmed its appropriateness. To ensure an adequate number of responses, a convenience sampling method was employed among graduate students at Setif 1 University in Algeria, following guidelines by Peterson and Merunka (2014). A pilot test involving 25 participants was conducted to assess the scale's reliability and make necessary adjustments. Subsequently, a large-scale structured survey was distributed to students of the Faculty of Economics at Setif 1 University.

The questionnaires for this study were administered to a convenience sample of 392 respondents (Bryman, 2012; Keegan & Green, 2013), with a margin of error 05%,

confidence level 95% and population of more than 10 K students. *Google docs* was used to distribute the largest possible number of online-survey, while maintaining strict confidentiality. They responded voluntarily and without any remuneration for their participation.

After data collection and transcription, the data was analyzed using the SPSS software. Mean and One-Sample T Test were applied to compare the mean scores of respondents' attitudes across different items.

According to the central limit theorem , the sample size is sufficiently large to apply parametric tests (Dudley, 1978). A one-sample t-test is used to evaluate the acceptance or rejection of the first and second hypotheses. Additionally, an independent-samples T-test is utilized to assess differences in respondents' attitudes towards public Wi-Fi services and mobile connectivity and to test the acceptance or rejection of the third hypothesis.

Cronbach's alpha coefficient was used to determine the internal consistency reliability of the scale used in this study.

Table 2 : Reliability Statistics

Number of Scale Items	Cronbach's Alpha
26	0.779

Source: SPSS output

According to (Nunnally, 1978; Schuessler, 1971), (Nunnally, 1978), the minimum levels recommended was performed. They suggested that an alpha value of 0.7 or greater is acceptable. Table 2 indicated the reliability levels obtained in this study.

3.4 ANALYSIS AND RESULTS

Since the study was conducted on a random sample, the sample characteristics vary, and the sample characteristics can be presented in the following table:

Table 3 : Characteristics of survey participants

Gender	N	Rate
Male	164	42%
Female	228	58%
Age		
[18-20]	43	11%
[20-25]	256	65%
[25-30]	74	19%
>30	19	05%
Degree		
Undergraduate Students (Bachelor)	244	62%
Graduate Students (Master)	142	36%
PhD Students	06	02%

Source: SPSS output

The table 3 above shows that the male proportion is estimated at 42%, while the female proportion is 58%. Additionally, the majority of respondents fall within the age range of 20 to 25 years. Conversely, only 11% of respondents are below the age of 20 years, whereas students aged 25 to 30 years constitute 19%. The lowest age category comprises individuals over 30 years, accounting for a mere 5%. The decline in respondents below the age of 20 years can be attributed to their concentration in the faculty annex (first-year undergraduate students), which lacks public Wi-Fi access. On the other hand, those exceeding 30 years are predominantly doctoral or master's students (category of 20%).

Furthermore, the proportion of respondents pursuing their studies at the undergraduate level (first, second and third year) stands at 62%, while master's students account for 36%. Doctoral students represent the smallest category, comprising only 2%, owing to their relatively low numbers compared to other academic levels.

Attitudes towards Public Wi-Fi and Mobile Connectivity

In the first part of the study, responses from the study sample were analyzed to determine their attitudes toward both the Public Wi-Fi internet and Mobile Connectivity. The following table presents the results of each survey item.

Table 4: The means of the responses to the items of survey

item	**Public Wi-Fi** N= 392		**Mobile Connectivity** N= 392	
	Mean	Sig.	Mean	Sig.
Speed:				
- High speed at all times	2.84	.005	2.82	.000
- Good speed compared to the price	4.11	.000	2.07	.000
- The same speed everywhere	3.62	.000	3.26	.000
Duration and limitation of Internet use:				
- Unlimited connection duration	4.19	.000	3.54	.000
- Unlimited connection periods	3.82	.000	3.70	.000
- Unlimited number of devices	3.86	.000	3.88	.000
- Accessible anywhere on campus	3.01	.000	3.16	.003
Reliability of Internet Access (Dependable, consistent, and stable):				
- Unlimited data flow	3.80	.000	2.10	.000
- Access allowed to all websites and platforms	3.66	.000	3.65	.000
- No interruptions or fluctuations in the connection	3.64	.000	3.28	.000
Security and Privacy:				
- Secure access	3.64	.000	3.69	.000
- No need to use VPN	3.58	.000	3.83	.000
- Data stored securely	3.84	.000	3.73	.000

Source: SPSS output

Table 04 presents the means of students' responses regarding public Wi-Fi and mobile connectivity, all of which were statistically significant at a significance level below 0.05. The highest recorded value in responses related to attitudes towards public WiFi stands at 4.19, concerning "*Unlimited connection duration"*, where respondents believe that the WIFI available in the faculty campus can be used for an unlimited duration throughout the day. On the other hand, the lowest value is 2.84, related to "*High speed at all times"*, where respondents perceive internet speed to fluctuate based on periods (decreasing during peak times). It is also notable that all items exceed a mean value of 3.40, indicating a tendency towards agreement or strong agreement, except for the first and seventh items.

Regarding responses about mobile connectivity internet, the highest recorded value is 3.88, related to "*Unlimited number of devices*," where respondents believe that mobile phone internet can be used regardless of the number of users. Conversely, the lowest value is 2.07, related to *"Good speed compared to the price*," where respondents believe that the price/speed combination is low, meaning that the service price is high compared to the available internet speed. It is also noteworthy that all items of the first dimension related to "Mobile connectivity speed in the faculty campus" do not exceed mean values of 3.40, indicating disagreement or neutrality towards the content of these items, unlike item of the fourth dimension related to "*Security and Privacy*," which all exceed 3.60, meaning that individuals' responses tend towards agreement.

Results of Hypotheses

For testing the first and second hypotheses, a One-Sample T Test will be used to determine the attitudes of the study sample members. Tables 06 and 07 present the results for each dimension and for the survey as a whole.

Table 5: One-Sample T Test of Attitudes towards public WiFi

Axe	***Mean***	***Sig.***	***T***	***Decision***
Speed	3,52	.000	13,808	Agree
Duration and limitation of Internet use	3,72	.000	24,542	Agree
Reliability of Internet Access	3,70	.000	22,855	Agree
Security and Privacy	3,69	.000	20,561	Agree
Public WiFi	3,66	.000	35,399	Agree

Source: SPSS output

It is evident from the table 05 above that all results of the T-test were significant. Looking at the means, all of which exceed 3.40, the general trend of responses for each dimension leans towards acceptance. Hence, it can be said that the students' attitudes toward public Wi-Fi internet are generally positive, thus ***supporting*** the first hypothesis

Table 6: One-Sample T Test of Attitudes towards Mobile Connectivity

Axe	*Mean*	*Sig.*	*T*	*Decision*
Speed	2,72	.000	-9,751	Neutral
Duration and limitation of Internet use	3,57	.000	21,449	Agree
Reliability of Internet Access	3,01	.673	,423	-
Security and Privacy	3,75	.000	23,746	Agree
Mobile	3,28	.000	25,969	Neutral

Source: SPSS output

Regarding students' attitudes toward Mobile Connectivity, we observe differences in the responses as shown in the table 06 above. The T-test results for the dimensions: "*Speed, Duration and limitation of Internet use, security and privacy"* are estimated at 0.000, which is less than 0.05, indicating statistical significance. However, considering the means, the "*Speed"* dimension tends towards neutrality while the second and third axes exceed 3.40, indicating agreement value. Therefore, students' attitudes are generally positive towards these two dimensions. However, the T-test results for the third dimension related to "*Reliability of Internet Access"* were statistically insignificant, meaning students' responses were scattered, and thus no conclusions can be drawn about this dimension.

This variance in responses resulted in a neutral stance of students towards mobile internet services overall. While the T-test results were statistically significant, the overall mean of the survey is estimated at 3.28, confirming the neutrality of the results. Therefore, the second hypothesis suggesting that the consumer's attitude towards Mobile Connectivity in the campus of faculty are positive is ***Not supported***.

In the second part of the study, the responses of the study sample were analyzed to identify the differences in their attitudes towards both Public Wi-Fi and Mobile Connectivity. Therefore, an Independent-Samples T Test was conducted, and the following table displays the test results.

Table 7: Independent-Samples T Test

	Mean	**Std. Deviation**	**T**	**Sig. (2-tailed)**
WiFi	3,663	,371	17,421	,000
Mobile	3,285	,217		

Source: SPSS output

The table 07 indicates that the T value is positive and estimated at 17.421, which is significant at a significance level less than 0.05, where the significance level reached 0.000. The mean was 3.663 for public Wi-Fi and 3.285 for mobile connectivity. Based on these results, it can be concluded that there are statistical differences in students' attitudes towards public Wi-Fi and mobile connectivity, favoring public Wi-Fi. Therefore, the third hypothesis is ***supported***.

Table 08 summarizes the results of hypotheses:

Table 8: Results of Hypotheses

Hypotheses	Result
H1: The consumer's attitude towards Public WiFi in the campus of faculty are positive.	Supported
H2: The consumer's attitude towards Mobile Connectivity in the campus of faculty are positive.	Not supported
H3 : There are statistically significant differences in consumer attitudes towards Public WiFi and Mobile Connectivity.	Supported

4. Discussion

4.1 Internet Speed:

The campus WiFi internet speed was found to be suboptimal, despite the landline connection being known for its stability. This is due to the way the WiFi network is set up. The WiFi access is provided through a single 15 Mbps internet line that is shared across more than 21 access points distributed over 3 floors of the faculty compus.

As a result, all the students and staff using the campus WiFi have to share this limited 15 Mbps bandwidth. This leads to slow internet speeds, especially during peak usage times when many users are online simultaneously.

However, the WiFi is generally adequate for basic web browsing and consuming text-based content. Streaming video or loading large media files can still be quite slow and frustrating.

In contrast, the mobile network coverage across the faculty campus is quite variable. Some areas have weak signal strength and poor speeds from the different mobile providers.

Due to the high density of students using mobile data on campus, the shared mobile bandwidth also results in slow speeds that can barely support basic social media access, let alone more data-intensive online activities.

Regarding cost, the campus WiFi is a free service provided to students, making it a highly desirable option compared to paying for mobile data plans. The exception is the "Zero mode" offered by some mobile providers, which provides free but restricted internet access after the primary data allowance is used up.

This restricted access limits users to only certain pre-approved websites and apps, blocking access to many regular websites and media content.

In terms of stability, the multiple WiFi access points provide more consistent coverage across the campus, especially in areas near professor offices. Mobile network speeds, while generally weaker, tend to be more stable throughout the different campus locations.

Overall, the study results favored the campus WiFi network over the mobile internet options. Students generally have positive attitudes of the WiFi speed and accessibility, despite its limitations, compared to the more inconsistent and slower mobile network performance on campus.

4.2 Duration and limitation of Internet use

In both cases, whether via mobile connectivity or public Wi-Fi, the duration of internet usage is not restricted. The available internet balance on the phone solely determines the usage duration. However, the Wi-Fi network accessible within the faculty campus is unlimited from any point.

The results indicate that both networks can be used at any time, even during exam periods. There are no devices interfering with the phone network, and the Wi-Fi network primarily caters to the faculty. Thus, it is not restricted unless the internet subscription is not renewed.

This situation positively and strongly influences students' preferences regarding the content of the first, second, and third items of this section.

Regarding internet access across all areas of the faculty campus, free Wi-Fi is not available everywhere. It is only accessible near access points, typically close to faculty members offices (near to classrooms), and is entirely absent in the amphitheaters. As for mobile phone network coverage, it is nearly equal across all points within the faculty campus, but it's various depending to phone operators.

4.3 Reliability of Internet Access (Dependable, consistent, and stable):

The use of public Wi-Fi connected to a fixed flow relies on unlimited data volume but capped speed. In contrast, mobile connectivity depends on limited data volume but their speed varies based on the technology type (3G, 4G, etc.) and network strength. Consequently, it is evident that the Wi-Fi network available at the faculty campus provides unlimited data volume for all users, whereas this does not apply to mobile data usage. Therefore, students tend to use Wi-Fi to economize their data consumption while on campus.

Additionally, the Wi-Fi network accessible within the faculty campus is primarily intended for faculty members. However, students also utilize it after obtaining access passwords for the access points. As a result, the network is unrestricted in terms of accessibility, allowing users to connect to various websites and platforms, similar to the internet service provided by landline phone operators. The same holds true for the mobile connectivity network.

Furthermore, the internet flow remains uninterrupted throughout any time of day, independent of usage frequency or associated accounts. Consequently, users can access different websites at various times without the need for having any account or subscription.

4.4 Security and Privacy:

The issue of security is a sensitive point in public Wi-Fi networks. However, based on the study results, respondents do not perceive significant risks associated with using public Wi-Fi or the hacking of their data. They believe that Wi-Fi provided by public institutions, especially higher education institutions, is highly secure. Consequently, they use it without taking precautionary measures. Unfortunately, Certain individuals can create or share a private network with the same name as an existing access point. Through this deceptive network, they can illicitly hack the devices and access and steal data from unsuspecting victims. Some respondents also mentioned that they do not use VPN while accessing the internet in faculty campus due to a lack of understanding about the security risks posed by

public Wi-Fi. This lack of awareness is more prevalent among students majoring in economics compared to those specializing in computer science. Additionally, there have been no reported cases of data breaches among students using faculty Wi-Fi, especially since in the event of such incidents, they would be widely circulated among students through social media platforms.

The positive thing is that the faculty Wi-Fi can be accessible without any conditions (such as email requests, phone numbers, or device authorization), which partially protects data or tracking users. As for mobile connectivity, there are no significant concerns because cellular networks are private. Internet services offered by mobile operators are also secure, leading respondents to have strong positive attitudes in this regard.

These findings have contributed to fostering positive attitudes toward security and privacy concerning mobile connectivity and public Wi-Fi within the Faculty campus.

5. Conclusion

This study delved into the intricate realm of consumer attitudes towards Public WiFi and Mobile Connectivity within the educational domain, focusing on the Faculty of Economics Campus at Setif 1 University. Through rigorous analysis and hypothesis testing, several key findings emerged, shedding light on the nuances and preferences of users in this context.

Firstly, the study confirmed a positive outlook towards Public WiFi within the campus, highlighting its desirability as a free service, especially in contrast to paid mobile data plans. Despite certain limitations, such as internet speed variability and restricted coverage areas, the WiFi network garnered overall positive feedback, particularly in terms of stability and accessibility.

Conversely, Mobile Connectivity faced challenges in meeting user expectations, with issues surrounding internet speed, reliability, and coverage variability across different areas of the campus. While mobile networks offered privacy and security benefits, concerns regarding speed and consistency led to a more neutral stance among users.

Notably, the analysis revealed statistically significant differences between attitudes towards Public WiFi and Mobile Connectivity, emphasizing the distinct preferences and experiences of users within the educational setting.

Further insights were gained regarding factors influencing consumer attitudes, such as internet speed, duration and limitations of use, reliability, and security/privacy concerns. These findings not only contribute to understanding user behavior but also offer valuable recommendations for optimizing internet services within educational environments.

Recommendations stemming from this research include enhancing Public WiFi infrastructure to improve speed and coverage, addressing reliability issues in Mobile Connectivity, and increasing awareness about security risks associated with public WiFi networks. Additionally, providing more unrestricted access points for Public

WiFi across the campus can contribute significantly to user satisfaction and overall positive experiences.

By leveraging these insights and implementing targeted improvements, educational institutions can better meet the evolving connectivity needs of students and faculty, fostering a conducive environment for learning, research, and collaboration in the digital age.

LLM Statement

During the preparation of this work the author used LLM in order to improve the language and readability of the article.

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