

THE EVALUATION OF THE E-PAYMENT METHODS ACCORDING TO USER'S PERSPECTIVE

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Abstract

E-payment methods are becoming increasingly popular in Algeria, and even now it is still in the early stage of development. This research is about evaluating the e-payment method in relation to the customer's perspective. To achieve the objective of this study, we used a sample of users of BADR bank, to whom we distributed a questionnaire. We collected data and evaluated their satisfaction depending on 5 factors (price, speed, security, privacy, availability) and analysed the data visionally and statistically using SPSS and EXEL. The findings led to several conclusions, such as the satisfaction of e-card users being generally high, primarily influenced by the availability of payment support in shops. However, despite this satisfaction, users are aware of significant issues with e-payment methods in the BADR bank.

Keywords

E-payment, E-cards, satisfaction, payment support, e-payment methods

JEL Classification

G40, G35

Introduction

Electronic payment methods are among the most significant banking operations, and their demand is indicative of a country's level of development. regarding its supply, it improves the welfare of society, and due to the rapid development in technology across multiple domains, the world today finds itself situated in what is often referred to as the "information age" or the "knowledge era". Business organizations in general and commercial banks in particular, have witnessed great challenges in recent times. It is believed that a country's economic expansion and the sustainability of its banking industry depend to a large extent on its ability to face contemporary challenges, so this sector now needs to transcend mundane tasks and shift its focus towards strategies and policies essential for its growth and advancement.

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Since the electronic advocacy methods are directed to users, we can evaluate the effectiveness of online payment options for them.

This study aims to evaluate the e-payment tools from the perspective of BADR bank users. To accomplish this, we have to answer the main question of this research: How efficient are the tools of e-payment of the BADR bank according to users?

This study is organized as follows: Obstacles to the use of bank cards in Algeria, Customer Satisfaction and its accomplishment, Hypotheses, Results and discussions.

1. Review of the scientific literature

E-payment or electronic payment is the modern payment, which is all activities related to digital payment, and payment by card. It allows the exchange of money in a paperless manner.

E-payment systems are considered one of the key elements of economic progress in the developing world, and they significantly contribute to enhancing the capabilities and provision of financial services. Essentially, a payment system comprises a set of regulations that enable users to transfer money (Roozbahani, F.S. et al., 2015).

Electronic money was defined by the European Central Bank as: "an electronic stock of cash value on a technical method commonly used to make payments to contractors other than its issuance, without the need for a bank account when the transaction is made and used as a prepaid portable tool (Bouakaz, 2020).

- ✓ Obstacles to the use of bank cards in Algeria: (Samira, 2010)
 - Absence of advertising programs and campaigns that encourage the use of electronic payment cards.
 - The illiteracy rate in Algeria is approximately 30%.
 - Users have limited options when it comes to the variety of services offered by cards
 - Disruption of the permanent resemblance of dispensers.
 - Low proliferation of electronic payment devices by vendors.
 - Poor infrastructure.
 - High competition risk, operating risk, increasing theft offences, forgery and fraud.
- ✓ Customer satisfaction and its accomplishment
 - Customer satisfaction

Customer satisfaction is a metric that measures a company's customers' level of satisfaction with its goods, services, and capabilities. Data related to customer satisfaction, including feedback surveys and ratings, can assist a company in determining the most effective ways to adjust or enhance its products and services.

Quality and ensuring customer satisfaction have always been crucial to an organization's ability to thrive in today's cutthroat marketplace. Given its significant influence on customers' actions and purchase intentions, customer satisfaction has garnered the most

attention in the field of marketing. Customer satisfaction is a feeling or thought that has a specific emphasis on elements such as expectation, product, consuming experience, etc. and occurs at a specific time (after consumption, after selection, based on experience). Regarding the desired quality (Fatemeh SoleimaniRoozbahani, 2015).

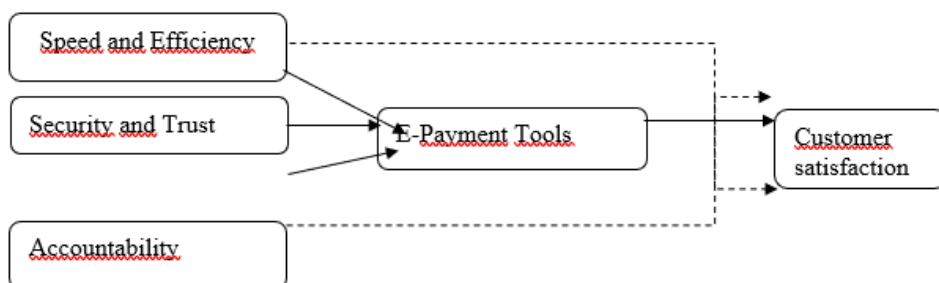


Figure 1: The research conceptual model

- Hypotheses

Based on the conceptual framework retained and the literature review, we have developed the following hypotheses, which express the links between the variables of our research.

- ✓ Satisfaction of the users when it comes to BADR cards

There is no particular research available that can indicate the level of satisfaction with BADR e-payment cards, but according to Yacine Djear, (2021), in his article mentioned that the E-payment system implanted by “Algeria Telecom” is insufficient compared to their counterparts. Therefore, we can conclude that a similar situation might exist in this case

H1. The users are not satisfied enough when it comes to the e-payment implemented by BADR.

- The factor that brings the most satisfaction to the clients

A correlation analysis (Shrestha, 2020) showed that there was a significant positive association between security and customer happiness, It is safe to extend this study to generate hypotheses because the users are employing similar sorts and categories of items, notably e-cards.

H2: Security brings the most satisfaction to the clients.

General presentation of the bank

The Bank for Agriculture and Rural Development (BADR) is a national financial institution created on 13 March 1982. It has the legal form of a joint stock company

(Badrbanque, 2022). The BADR bank has more than 7000 employees working as a team of 1200 customer service representatives at their disposal through its 321 branches, 39 regional groups of exploitation deployed on the national territory, and a new information system for increased security, simplicity, efficiency, and speed (Badrbanque, 2022). These efforts aim to provide the customers with the greatest level of satisfaction possible.

In some points, the BADR is:

- The first bank in Algeria.
- Employing SWIFT services since 1991.
- The most extensive network available.
- A universal bank which intervenes in the financing of all the operations economic operations.
- The computerised treatment of all the foreign accounts.
- Contributing to 30% of Algeria's foreign trade.
- A total asset value of nearly 5.8 billion dollars.
- First Algerian bank to materialize the concept of "sitting bank" with personalized service.
- The total information of the network based on software owned by BADR and development by its own information.

2. Research methodology

The e-payment sector, in particular, serves a wide consumer base. Our research focuses exclusively on users of the BADR bank E-cards. We drew the sample for the study using the convenience method, which is a non-probability approach. To do this, we created an online questionnaire via the Google Forms platform and shared it on social media platforms (such as Facebook and Linked).

3. Results and discussions

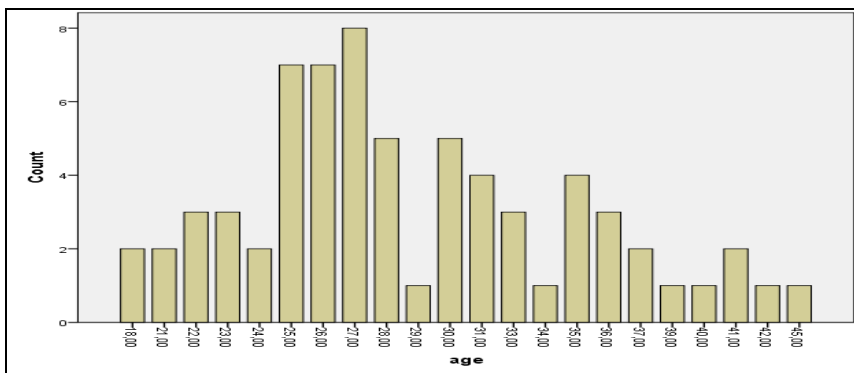
At first, 83 individuals took part in the survey, yet only 68 met the criteria required for our study, specifically as users of BADR electronic payment cards.

Understanding our demographics in terms of gender, age, and status is vital for context, and these specifics are outlined in the tables below.

- Age representation

The pie chart below represents the percentage of the respondents according to their age.

Figure 2: Age representation



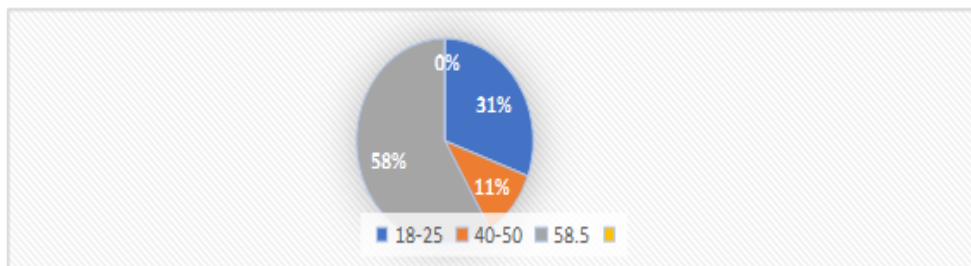
Source: Own processing based on the data obtained from the survey (2023)

Due to the presence of many variables and the difficulty of extracting the results from the chart above, we made a pie chart using a word program to show the percentages of the respondents in terms of the age groups.

We classified the ages into 3 main age groups:

- 18-25: young adults
- 25-40: middle-aged
- 40-50: represent elders

Figure 3: Age rages



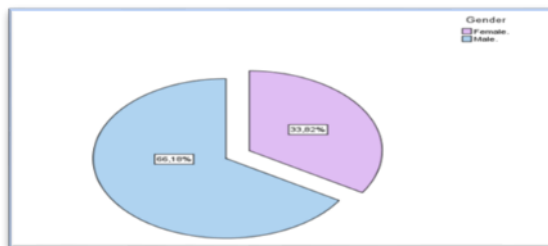
Source: Own processing based on the data obtained from the survey (2023)

As it is shown by the pie chart above most users are middle-aged, representing 58% of the pie chart, then it comes to the young adults at 31% and finally, the elders represent the minority at 11%.

- Representation of the gender

The pie chart below represents the percentage of our respondents according to their gender.

Figure 4: Representation of the gender



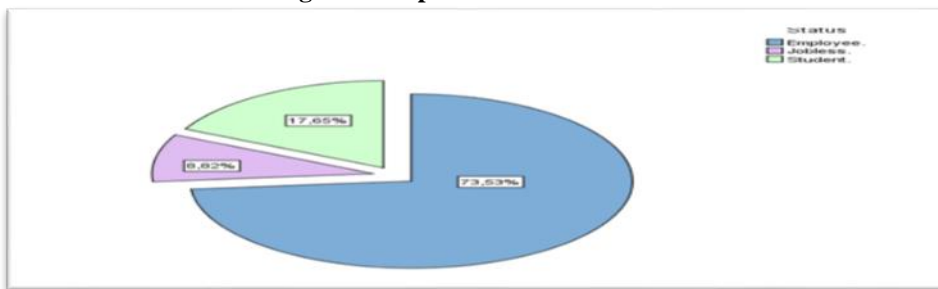
Source: Own processing based on the data obtained from the survey (2023)

The pie chart shows that most users are males with 66.18% while females represent 32.82% of the users.

○ Representation of the status

The pie chart below represents the percentage of our respondents according to their status.

Figure 5: Representation of status



Source: Own processing based on the data obtained from the survey (2023)

This pie chart indicates that the employees use BADR cards the most with 73.53%, followed by the students who represent 17.65%, and finally comes to the unemployed people who account for the lowest percentage of using bank cards with 8.82%.

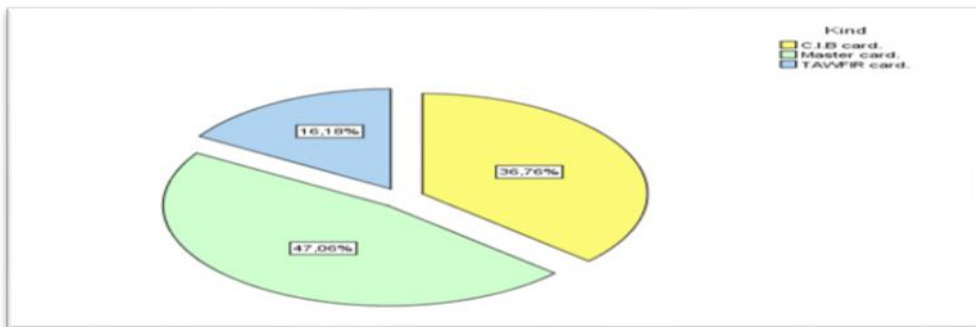
Observation: the middle-aged are the dominant users of this card since most users are the workers and then comes the young adults that mainly use it for gaming, freelancing and e-shopping, and finally the elders who use it mostly for savings.

General card uses

In this section, we will gather information about the cards that our survey participants use, their purposes for using these cards, and the extent to which they utilize BADR electronic cards. Subsequently, we will analyse the results.

i. In accordance with the type of cards

Figure 2: Types of cards owned

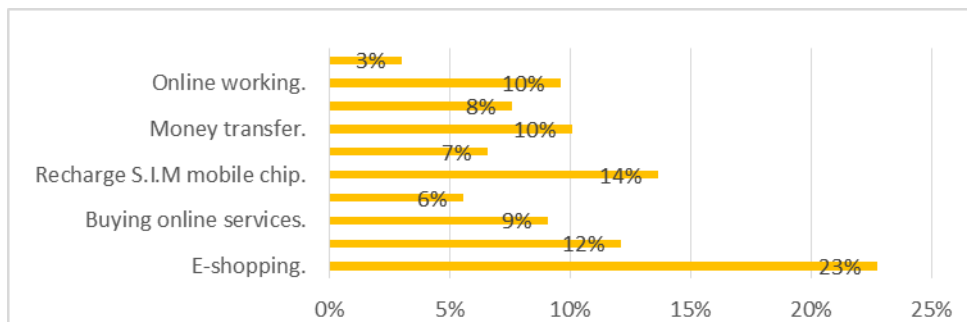


Source: Own processing based on the data obtained from the survey (2023)

Regarding the card type used, the chart data reveals that the "master card" is the preferred choice among our respondents, making up 47.06% of the chart. Following closely is the "CIB card" at 36.76%, while the "tawfir card" lags behind at 16.18%, securing the last position.

According to the type of use

Figure 3: The type of BADR e-cards use

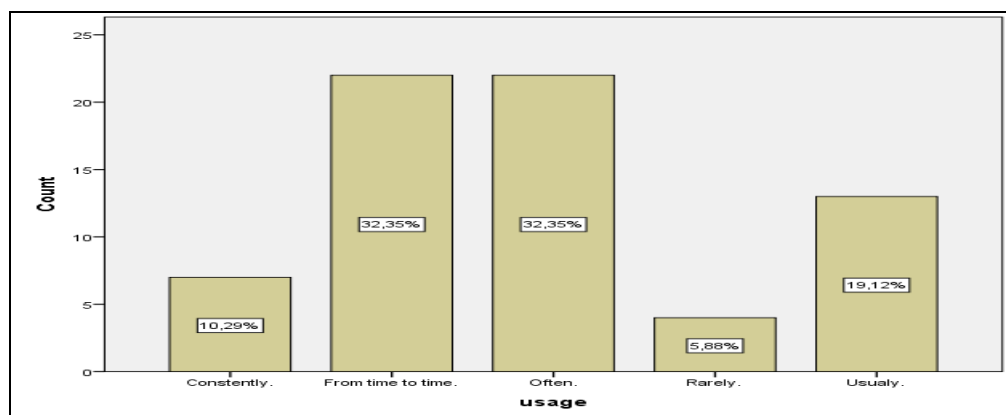


Source: Own processing based on the data obtained from the survey (2023)

Regarding the various uses, the diagram illustrates that the majority of participants employ their cards primarily for online shopping, followed by using the cards to top up their mobile SIM chips. Additionally, some respondents use their cards for savings and online employment, with others opting to use them for purposes such as transferring funds and purchasing online services. A smaller proportion of respondents use their cards for freelancing and subscribing to services, and a minor fraction employ them for gaming. Finally, international transfers are the least common use among our surveyed participants.

ii. Continuity of use

Figure 4: The continuity of use



Source: Own processing based on the data obtained from the survey (2023)

Regarding the frequency of card usage, the bar chart illustrates that a significant portion, constituting 32.35%, uses their cards frequently. About 32.35% use their cards intermittently, roughly 19.12% typically utilize their cards, and 10.29% use their cards regularly. In contrast, a mere 5.88% hardly employ their cards.

Evaluation of your BADR card.

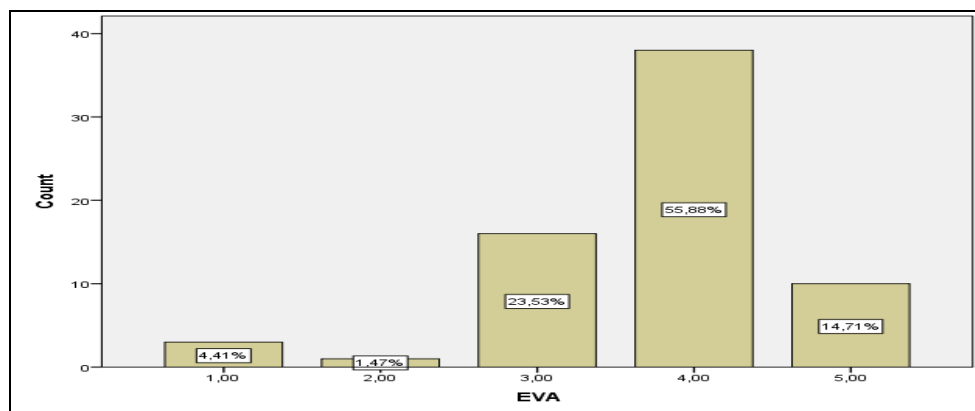
Our research efforts are concentrated on this segment to analyse respondent ratings and gauge their overall satisfaction levels. Our primary interest lies in assessing the degree of satisfaction across various aspects such as pricing, speed, security, privacy, and ease of use, among other factors. Additionally, we've asked our respondents for feedback concerning desired future card features and enhancements.

The evaluation of the card in general

It is safe to state that the mean we discovered using SPSS, which was 3.75/5, represents the degree of satisfaction of our respondents. In this study, we made the general rating as the dependent variable since it represents the degree of satisfaction of our respondents.

Using SPSS, we discovered that the mean was 3.7/5, indicating that the majority of our respondents are generously satisfied.

Figure 5: General rating



Source: Own processing based on the data obtained from the survey (2023)

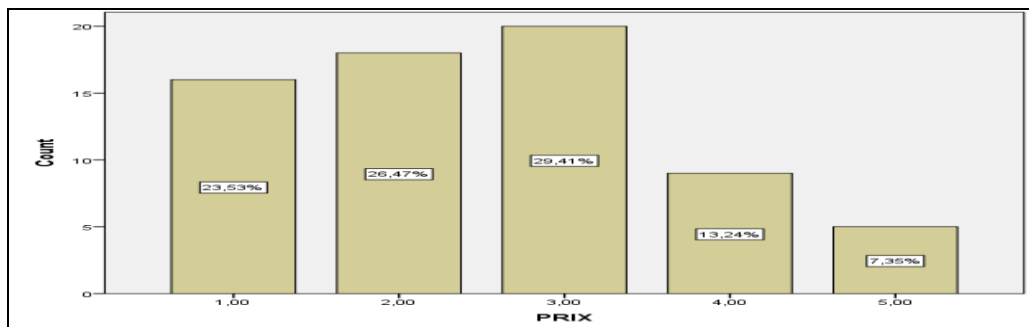
The chart illustrates that most survey participants have expressed positivity in their ratings, with 70.59% of the ratings exceeding 3/5. Conversely, approximately 5.88% have given ratings below 3/5, indicating dissatisfaction with the card, while around 23.53% remain neutral in their assessment of the card.

According to the price

Since the scale was going from cheap to expensive, we had to reverse the ratings so we could get the satisfaction values from it. The higher the scale goes the more expensive it gets.

So, the bar chart below goes from 1- unsatisfied with the prices (expensive) to 5 which means the highest satisfaction scale since it means that the card is affordable.

Figure 6: Price rating



Source: Own processing based on the data obtained from the survey (2023)

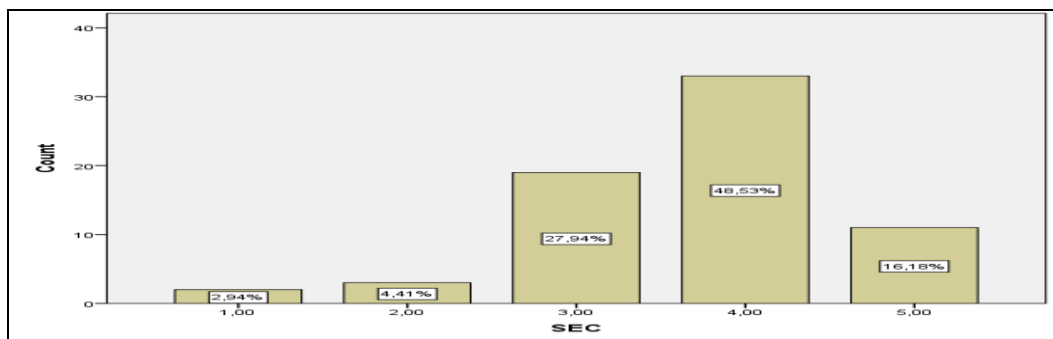
The majority of the users are unsatisfied with the pricing as 50% of the ratings are under 3/5 while 20.59% are satisfied with the prices and around 29.41% are mutual.

The SPSS indicates that the price mean was 2.54/5 which is under the threshold of satisfaction, which means that the respondents are unsatisfied when it comes to the prices and expenses of the card.

According to security

Security is the most important factor when it comes to satisfaction. In the bar chart below, we consider the safer the users feel about the card and its services the more they are satisfied.

Figure 7: Security ratings



Source: Own processing based on the data obtained from the survey (2023)

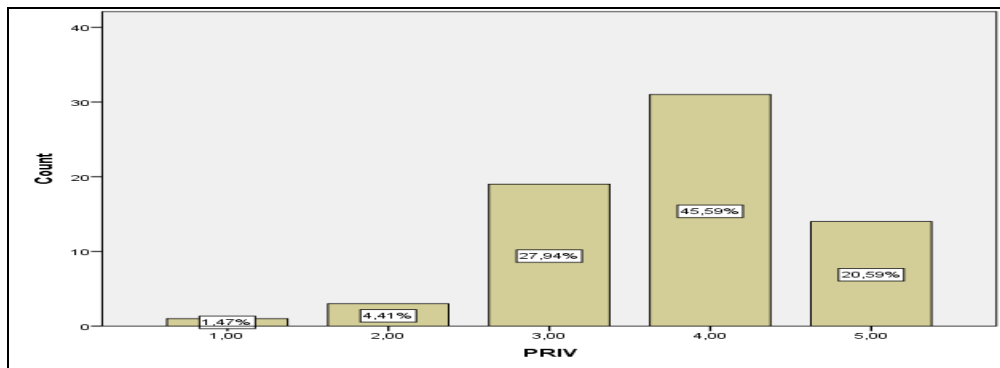
From the total of respondents, only 64.96% of the users find BADR cards to be a secure option while about 7.35% of the respondents are unsecured about their cards and roughly 27.94% are mutual.

The SPSS indicate that the average score for security was 3.70/5 means that they are satisfied when it comes to the security of their assets.

According to privacy

By safeguarding the confidentiality of client’s privacy and Personal information we can reduce the risks associated with identity theft, financial fraud, and other issues that cost individuals, companies, and governments millions of dollars annually. Therefore, it is crucial that consumers feel secure about their personal data, and the chart below illustrates how satisfied the respondents are with their privacy and personal data.

Figure 8: Privacy ratings



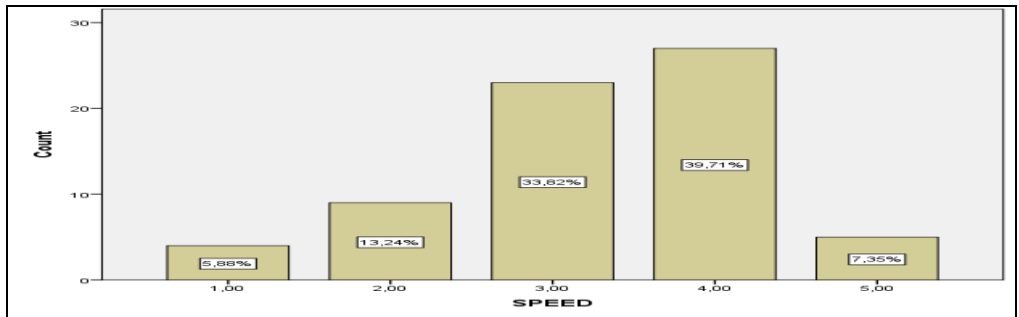
Source: Own processing based on the data obtained from the survey (2023)

When it comes to privacy 66.18% find that their personal data is safe while 8.55% feel the contrary and 27.49% are mutual. The SPSS indicate that the mean when it comes to privacy was 3.79/5 which is the highest mean rating we got in our study, since the customers feel safe about their personal information.

According to speed

Speed is one of the most important features that affect customer satisfaction, regardless of the type of service or goods obtained. BADR cards are not an exception. The bar chart below represents the satisfaction of users when it comes to the speed of the services offered by the cards.

Figure 9: Speed of services ratings



Source: Own processing based on the data obtained from the survey (2023)

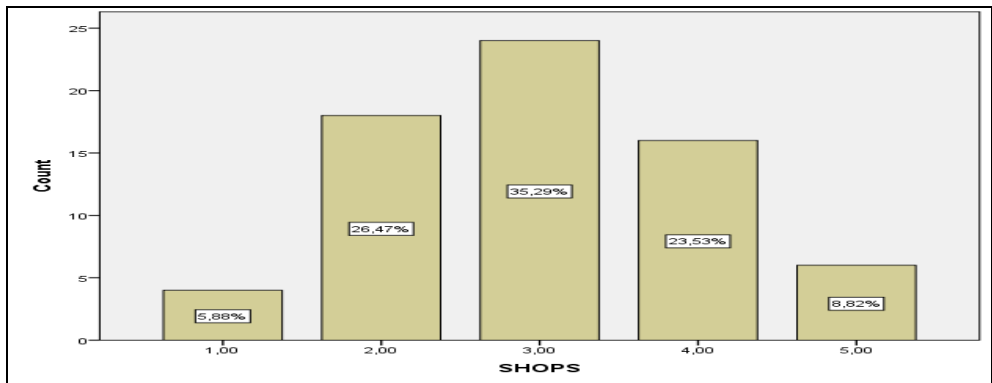
When it comes to speed, most of the users (47.06 %) are satisfied while 19.12% are not satisfied and 33.82% are mutual.

According to SPSS, speed had a rating of 3.29 out of 5, indicating that users are satisfied when it comes to speed services in general.

Evaluation of the availability of shop support

One of the most important features when it comes to e-payment is the ability to buy goods and services with the card without holding physical money. This chart shows the availability of payment support for electronic payment in shops.

Figure 10: Shops payment support ratings



Source: Own processing based on the data obtained from the survey (2023)

As for shops there is a variety of evaluations obtained since 32.35% are satisfied, 32.35% are not, while 35.29% are mutual. When it comes to the shops, the score was 3.02/5 meaning that it is acceptable.

Testing the hypotheses

The hypotheses of the research were tested by conducting regression analyses. The nature of the variables in the research model allowed us to perform these analyses.

Testing Satisfaction of the users when it comes to BADR cards

Using SPSS, we calculated the mean of every rating order to identify the satisfaction of every factor of the study.

Table 1: Factors and their ratings mean

Factors	Mean
GENERAL	3,7500
SPEED	3,2941
SECURITY	3,7059
PRIX	2,5441
PRIV	3,7941
SHOPS	3,0294

Source: Own processing based on the data obtained from the survey (2023)

According to the results of the survey, the respondents are generally satisfied with their cards when it comes to speed, security, and privacy, but unsatisfied with the cost of the cards. Additionally, the shops' support is acceptable.

H1: invalid

The factor that impacts satisfaction the most.

A regression analysis between the dependent variable, customer satisfaction, and the independent variables was performed and the table below shows the coefficients of correlation.

Table 2: Regressions of satisfaction

Correlations						
	EVA	SPEED	SEC	PRIX	PRIV	SHOPS
EVA	1,000	0,220	0,243	0,269	0,144	0,456
SPEED	0,220	1,000	0,583	0,039	0,449	0,564
SEC	0,243	0,583	1,000	-0,181	0,625	0,325
PRIX	0,269	0,039	-0,181	1,000	-0,133	0,105
PRIV	0,144	0,449	,0625	-0,133	1,000	0,251
SHOPS	0,456	0,564	0,325	0,105	0,251	1,000

Source: Own processing based on the data obtained from the survey (2023)

The correlation coefficient between general evaluation and shop support is the highest at 45.6% which means that shop support for e-cards influences satisfaction at the highest level. In other words, the users depend primarily on that to be satisfied.

Second, the price comes in at 26.9 % followed by security at 24.3%, speed at 22% and then finally privacy at 14.2% which indicates that it has the least impact on the respondents' satisfaction.

H2: is invalid.

From the results collected and analysed we conclude that both hypotheses are invalid and do not relate to our study, since we got all the results needed as answers, we conclude the following:

From the results that the customers are satisfied with their e-cards in general and according to the correlation coefficient table we got by analysing the incomes of the respondents. it is clear that the presence of payment devices in shops or the ability to purchase by card in shops influences the most when it comes to user satisfaction, since it's the main base of the e-payment system "paying without physical cash", the mean or the general rating when it comes to payment support or the ability to purchase by card in shops there is a variety of evaluations obtained. This is due primarily to the

geographical location, as the stores that support card payments are abundant in large cities, commercial malls, and places where the economic movement is relatively high.

The second factor that influences user's satisfaction is the price and the expenses of the cards, unfortunately, the mean of the price was the lowest in our study indicating that most users are unsatisfied with the prices provided by the bank. The cost of using the card does not theoretically fluctuate with the income level of the average citizen due to several factors, such as substantial initial registration and card creation expenses, as well as high monthly and usage fees.

The next factor is security, and the feedback from users has generally been favourable. This suggests that users have a sense of confidence regarding the safety of their funds and finances, even though there have been a few unfavourable reviews and comments. This assurance stems from the occasional issues with payment systems, which may be linked to either their vulnerability or limited coverage, resulting in financial losses for users or the inability to complete a transaction despite the user having transferred the amount to the seller.

Finally, when it comes to preserving users' privacy, the majority of respondents consider that the Bank protects users' privacy to the fullest, the rating was the highest obtained in the present study, and also critics about privacy were registered.

In addition, some variables affected customer satisfaction with these cards, including:

- Weak technical support for these cards, technical and marketing for these cards.
- Weak marketing made by the banks;
- Fragile infrastructure of e-payment system;
- Master card's short validity period (two years);
- Limited use of the CIB card.

In conclusion, there are some recommendations offered by the respondents to improve the e-payment services offered by the bank BADR:

- The need to extend the expiring dates when it comes to master cards.
- Lowering fees and expenses.
- Making it possible to link it to PayPal,
- Making the service faster.
- Being accepted in more shops.
- Adding gifting system (depending on the frequency of the use).
- Building an app for the cards to make it easier to use.

Based on the results, it can be concluded that although users are generally satisfied, some major issues with e-payment methods in Algeria negatively impact user satisfaction. This is primarily due to the high expenses and fees associated with electronic cards, as well as the limited availability of shops that offer modern payment methods in remote and semi-remote areas, and sometimes even in larger cities. It should be noted that e-payment in Algeria is still in its early stages of development. However,

users do feel confident in the security and privacy of their transactions. These challenges are not insurmountable, and with some effort, it should be possible to make e-payments more widely available and convenient for everyone.

Conclusions

Online payments are growing in popularity all over the world. In Algeria, however, there is a necessity to carry out more studies on the topic to understand the full potential of e-payments in the country. With more research, we can better understand how to make online payments more accessible and secure for Algerian consumers and businesses alike.

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