Financial technology innovation and its role in gaining a competitive advantage
Case study of Agricultural and Rural Development Bank (BADR)

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Abstract

The study tried to find out the level of innovation in financial technology as a mechanism to achieve the competitive advantage of the Bank of Agriculture and Rural Development BADR, where the study population consisted of all individuals working in the institution under study in order to analyze the data, 70 questionnaires (study tool) were distributed to the sample, and the hypotheses were tested by the statistical program spss for data analysis, and 52 questionnaires were retrieved and studied by 74.28% of the distributed questionnaires.

The study found several results, including: the adoption of the Bank of Agriculture and Rural Development (BADR) with a moderate degree for both innovation in financial technology and the level of competitive advantage, as well as the existence of a statistically significant impact relationship between them in the institution under study, which was explained by a strong correlation coefficient almost completely. The study found that the Bank of Agriculture and Rural Development (BADR) should continue to adopt and develop the concept of innovation in financial technology and pay attention to the requirements related to this in order to develop competitive advantage and achieve sustainable development and leadership.

Keywords: innovation; innovation in financial technology; financial technology; competitive advantage; bank of agriculture and rural development

JEL classification codes: O32; G2; L41; E5

الابتكار في التكنولوجيا المالية و دوره في تحقيق الميزة التنافسية

دراسة ميدانية لبنك الفلاحة والتنمية الريفية–BADR–

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الملخص:

حاولت الدراسة معرفة مستوى الابتكار في التكنولوجيا المالية كآلية لتحقيق الميزة التنافسية لبنك الفلاحة والتنمية الريفية BADR، حيث تكون مجتمع الدراسة من جميع الأفراد العاملين بالمؤسسة محل الدراسة بهدف تحليل البيانات تم توزيع 70 استبيان(أداة الدراسة) على العينة، وتم اختبار الفرضيات بواسطة البرنامج الإحصائي spss لتحليل البيانات وتم استرداد ودراسة 52 استبيان بنسبة 74.28% من الاستبيانات الموزعة.

حيث توصلت الدراسة إلى عدة نتائج منها: تبني لبنك الفلاحة والتنمية الريفية **BADR** بدرجة متوسطة لكل من الابتكار في التكنولوجيا المالية ومستوى الميزة التنافسية،.وكذلك وجود علاقة أثر ذات دلالة إحصائية بينهما في المؤسسة محل الدراسة فسرت بمعامل ارتباط قوي شبه تام. وقد توصلت الدراسة الى ضرورة استمرار بنك الفلاحة و التنمية الريفية **BADR** بتبني وتطوير مفهوم الابتكار في التكنولوجيا المالية والاهتمام بالمتطلبات الخاصة بذلك من اجل تنمية الميزة التنافسية وتحقيق التنمية المستدامة والريادة.

الكلمات المفتاحية: ابتكار؛ الابتكار في التكنولوجيا المالية؛ تكنولوجيا مالية؛ ميزة لتنافسية؛ بنك الفلاحة والتنمية الريفية.

تصنيف JEL: O32؛ G2؛ L41؛ E5.

Introduction:

The quest for adaptability, rapid adaptation, and the construction of a path of growth and leadership in light of the major transformations taking place in the world, primarily related to tremendous practical and technological developments, is one of the most prominent challenges confronting institutions, regardless of their general or private nature, industrial or service.Despite this tremendous development, its implications for institutions, and its reliance on technology, perhaps the success of states in achieving their goals and aspirations is linked to their institutions' ability to complete the tasks assigned to them. In order to achieve leadership and achieve their desired goal, they must be the most efficient and productive.

Financial institutions and organisations, as well as other financial bodies such as commercial banks, seek to lead and grow in order to reach the highest possible summit, which is similar to the environment in which they operate and the competition that exists, and this may inevitably lead them to try to renew their structure and develop their financial and technological methods, innovations, and mechanisms of action in order to achieve their leader goals.

At the moment, the world is shaking to accelerate the pace of technological progress and inventions that have affected the digital economy and the field of management. Media technologies, communication, and the methods of generating and managing these projects that achieve greater economic value and ensure a competitive advantage for any organisation are two fields that are strongly influenced by innovation in terms of media technologies, communication, and the methods of generating and managing these projects that achieve greater economic value and ensure a competitive advantage for any organisation.

Study problem:

The problem with the study is that when compared to the concept of competitive advantage, which is one of the concepts describing entrepreneurship and the ability to succeed, the topic of financial technology innovation is one of the topics that is closely related to the digital transformation from traditional transactions to new sophisticated transactions. The absence of the concept of innovation may result in a lower level of competitive advantage for the enterprise, which prompted us to conduct a survey of the role of innovation in financial technology in achieving competitive advantage in the Agricultural and Rural Development Bank (BADR), and the study attempts to study the relationship between them on this basis.

The problem of this study can be formulated in the following main question:

What role does financial technology innovation play in achieving BADR bank's competitive advantage?

The following sub-questions fall under this problem:

- What is innovation in financial technology?
- What is the competitive advantage?
- What is the reality of innovation in the financial technology of BADR agriculture and rural development bank in ADRAR?
- What level of competitive advantage is achieved by BADR agriculture and rural development bank in ADRAR?
- Is there a relationship between innovation in financial technology and competitive advantage at BADR agriculture and rural development bank in ADRAR?

Study hypotheses:

We developed a set of hypotheses based on the study questions and the initial answers to the sub-questions:

The first key hypothesisH_1: There is a statistically significant relationship at a moral level α=0.01 between innovation in financial technology and competitive advantage at BADR agriculture and rural development bank in ADRAR.

A set of sub-hypotheses is derived from the first key hypothesis as follows:

- **The first sub-hypothesis H_{1-1}:** There is a statistically significant relationship at a moral level $\alpha = 0.01$ between after the uses of payment services and the competitive advantage of BADR agriculture and rural development bank in ADRAR.

- **Second sub-hypothesisH_{1-2}:** There is a statistically significant relationship at a moral level $\alpha = 0.01$ between after banking uses for individuals and achieving competitive advantage in BADR agriculture and rural development bank in ADRAR.
- **Sub-hypothesis III H_{1-3}:** There is a statistically significant relationship at a moral level $\alpha = 0.01$ between after the uses of finance and investment and the competitive advantage of the Agricultural and Rural Development Bank BADR of the ADRAR Agency.
- **Sub-hypothesis IV H_{1-4}:** There is a statistically significant relationship at a moral level $\alpha = 0.01$ between after uses for banks and financial bodies and achieving competitive advantage in BADR agriculture and rural development bank in ADRAR.

The second key hypothesis H_0: There is a statistically significant impact at a moral level $\alpha = 0.01$ between innovation in financial technology and competitive advantage at BADR agriculture and rural development bank in ADRAR.

A set of sub-hypotheses is derived from them as follows:

- **The first sub-hypothesisH_{0-1}:** There is a statistically significant effect at a moral level $\alpha = 0.01$ between after the uses of payment services and the competitive advantage of the Agricultural and Rural Development Bank BADR at ADRAR.
- **Sub-hypothesis II H_{0-2}:** There is a statistically significant effect at a moral level $\alpha = 0.01$between after banking uses for individuals and achieving competitive advantage in BADR agriculture and rural development bank in ADRAR.
- **Sub-hypothesis III H_{0-3}:** There is a statistically significant effect at a moral level $\alpha = 0.01$between after the uses of finance and investment and the competitive advantage of the Agricultural and Rural Development Bank BADR at ADRAR Agency.
- **Sub-hypothesis IV H_{0-4}:** There is a statistically significant impact at a moral level $\alpha = 0.01$ between uses for banks and financial bodies and achieving competitive advantage in BADR agriculture and rural development bank in ADRAR.

Study objectives:

There is no doubt that any study seeks to achieve specific objectives, whether they are theoretical objectives such as attempting to understand or explain a social phenomenon or applied objectives such as attempting to solve field problems associated with specific applications or procedures. So, in order to achieve the main goal of understanding the role of financial technology innovation in achieving the competitive advantage of the Agricultural and Rural Development Bank (BADR) in the ADRAR agency, a set of sub-objectives has been developed:

- Providing theoretical and cognitive frameworks for the variables of the study, allowing for greater clarity.
- Clarifying the concept of innovation in financial technology and competitive advantage.
- Highlighting the importance of the relationship between innovation in financial technology and competitive advantage, therefore, the results of the study can be utilized.
- To see how each dimension of innovation in financial technology affects competitive advantage.
- Verifying the validity of the hypotheses formulated in order to produce results.
- Make recommendations to organizations to increase the level of innovation in financial technology and competitive advantage.

Boot:

Financial technology innovation and achieving competitive advantage are important topics in the field of business administration, and have received increased attention as a result of numerous research and studies related to development and leadership, cognitive development of human resources in institutions, and financial technology innovation. And in creating a positive regulatory climate dealt with by employees in enterprises and dealers for administrative and service purposes, and all of this was addressed in this chapter in accordance with the following vision:

1. Theoretical literature on innovation in financial technology:

One of the goals that calls for a shift toward digitization in all parts of the world in order to achieve a comprehensive economic vision as a term or concept of integrated concepts of innovation, technology, and finance is financial technology innovation.

What is innovation in financial technology?

There are many concepts about defining the concept of innovation and differ, it means:

- ❖ Take the initiative to and accelerate the thing, in the sense of doing something that no one has done before, which leads to creative results.
- ❖ Is to create or produce something new provided that it is authentic, realistic, guaranteed, generally accepted and solves an intractable problem. (Jabbar, 2018, p. 892)

As a comprehensive concept of the above we conclude that innovation:

Is the creation, development, and application of novel tools and mechanisms, as well as the formulation of creative solutions?

The concept of financial innovation:

Financial innovation is a broad term that can be subdivided into specific categories based on changes in the financial system. Equity capital increases, transfers, and mobile banking have all seen significant financial innovation.

Financial innovation has advanced over time in financial instruments and payment systems used to lend and borrow money, including technology updates, risk transfer, credit generation, and property rights, to increase credit available to borrowers and provide banks with new and less expensive ways to raise equity capital. (Chen & Anderson, 2020, p. 01)

The comprehensive concept of innovation in financial technology:

The term "innovation in financial technology" is a combination of the three conceptual terms "innovation, technology, and finance," and it can be said that the term "innovation in financial technology" applies to any innovation in how people do business, which originally refers to computer technology applied to the back office of banks or bodies, organisations, financial institutions, companies, and major shops in a wide range of technological overlaps in personality asymmetry. Transferring funds, depositing a check, or connecting to a smartphone, bypassing a bank branch to apply for credit, raising funds to start a business, or managing investments in general without the assistance of a person.

The distinctive characteristics of innovation in financial technology in organizations:

There are several characteristics of financial organisations and bodies that distinguish them in this area, and the most important ones are listed below. (Sahei & Malika, 2018, p. 93):

Access to all users: Fintech targets all classes and categories, constantly expanding possibilities through partnerships or redesigning products designed for customers with controversially limited income, and reversing traditional financial services that are limited to a specific category of customers.

Flexibility and affordability: Financial technology has enabled many low-cost reindeer programs and applications, as well as rapid performance on a daily, weekly, or even monthly basis.

Speed: Strong analyses allow financial technology companies to move fast, with transactions completed in a few minutes using big data, algorithms, and machine learning, as opposed to small traditional insurance companies that may take several days before approving a new policy or loan, which applies in lending and when verifying digital identity;

Telephone system: These methodologies can help to improve the products and services offered by designing services that are appropriate for them, simple to use, and as close to the customer as possible, allowing them to make better decisions and capitalize on opportunities.

The importance of innovation in financial technology:

The field of financial technology innovation is of great importance in the current decades, particularly in some countries in the Middle East and North Africa, including the following (Sahei & Malika, 2018, p. 96):

- Promoting and strengthening creativity and innovation in the financial sector and developing economic transactions

- Facilitate sources of funding for various SMEs
- Facilitate major business transactions and contribute to the expansion of financial activities.
- Digitization of the financial sector and credibility and transparency .Strengthening the desire for transactions, gaining customers and expanding the financial sector
- Ensure compliance with regulations, reduce risks and achieve financial stability.

Requirements and pillars of the uses of financial technology:

Prior to the advent and adoption of financial technology, the owner of a business, company, or start-up could have gone to a bank to secure new finance or capital. If they plan to accept credit card payments, they will need to create numerous paper files, establish a relationship with your credit provider, and even install infrastructure such as a landline card reader. With smartphone technology, these barriers are no longer an issue.

Financial technology is used to help companies, business owners, capital, and consumers better manage their operations, operations, and financial lives by using specialised software and equipment that is increasingly being used on computers and smartphones, as financial technology has grown significantly as a result of the internet and smartphone revolution, and these consumers are becoming more aware of financial technology as part of their daily lives. The term "financial technology" refers to new technology that seeks to improve and develop the delivery and use of financial services. Their applications are summarized below (al-Shammari & Fattah, 2008, p. 70)**:**

Uses of payment services: the most active and flexible banking activities offered by financial technology to many users and customers such as: smartphone payment, external remittances, e-commerce payment flow management.... etc.

Banking uses for individuals: These simple online services, without any material agency presence, include low costs, including budget management solutions as well as various tools for personal financial management.

Uses of finance and investment: It is done by attracting individual savings, by providing simplicity and ease of the offers granted, providing crowdfunding platforms to financial organizations and bodies, whether in the form of loans or capital investment, as well as providing online financial advice to individuals.

Uses for banks on the basis of a large data base: they provide solutions for the banking sector, through the collection and analysis of a large database, launched by improving customer relationship management.

Uses for banks and financial institutions: Through the provision of many solutions for the development of organization management in relation to transaction registration, information processing, risk management, tax management... etc.

Financial services using ATMs: the most common electronic services provided by financial institutions in most of their branches, with the goal of reducing work pressure and avoiding administrative procedures, meeting customers' financial needs after working hours, and during holidays they operate throughout the day, where they are placed on the basis of external use and in public squares and places such as airports. The individual or another beneficiary should obtain a brief balance statement and withdraw cash using credit cards (Ma'had al-Dirāsāt al-maṣrifīyah; Institute of Banking Studies, 2013, p. 02)

Smartphone financial services: These services are available via mobile phone, where the customer enters a pin number to access his account and inquire about his assets, as well as to deduct from him in accordance with any required financial services. (al-Haddad, 2000, p. 64) Financial Services via SMS: This service allows the customer to receive SMS messages for many financial services and procedures performed on his account, as well as promotional information about the bank, on his cell phone at any time and from any location (al-Shammari & Fattah, 2008, p. 70)

Financial services using the T.P.V. final service: This service provides enterprise customers with the flexibility to make electronic payments as an alternative to paper money and cheques, especially if the required amounts are large, as an automated payment device connected to an electronic network with banks is used in which the electronic transfer of money from the customer's (buyer) account to

the merchant's account using the latter's electronic card, which is used by the latter when paying for the services and goods. (Ma'had al-Dirāsāt al-maṣrifīyah; Institute of Banking Studies, 2013, p. 02)

Online financial services: This service is also known as the Internet Bank, and it is the completion of financial transactions through access to the Bank's website, where this convenient and secure service allows customers with debit cards to access their accounts from anywhere and at any time, whether from home or office, and the customer is given an ID number to facilitate access and conduct financial transactions, so customers can control their money with protection and security in the process, so customers can control their money with protection and security in the process. (al-Shammari & Fattah, 2008, p. 61)

2. Theoretical literature of competitive advantage

Competitive advantage and its importance

Competitiveness is one of the most widely traded and renewed terms, especially with the increasing growth of trade conflicts and their imposition of intense competition, in need of new foundations and methods, as competition is no longer limited to freedom of entry and exit from the market, but the possibility of remaining in confrontation, so competitive excellence must be achieved not only in order to achieve success, but also in order to achieve lasting superiority, so competitive excellence must be achieved not only in order to achieve success, but also in order to achieve lasting superiority.

Determining competitive advantage is thus the primary concern of economists and business administrators, where two points of view can be distinguished. First, economists are typically interested in factors that determine the competitive advantage of the national economy as a whole, whereas businessmen are typically interested in the competitiveness of the organisation or industry, where the competitive advantage enables the organisation to withstand and positively confront competition while expanding its market share. (Henri, 1998, p. 71)

Competitiveness concept:

Competition is one of the most common terms in contemporary business literature to attract and increase interest in contemporary business literature because it shows the existence of a dynamic characterized by dualism (competition - exclusion) where competition indicates a trend. Where are the competitors because of the market's characterization by the phenomenon of joint living between institutions with good performance and institutions with poor performance by practising acceptable behaviors that allow for the realization of satisfactory performance, and despite this distinction between verbal competition and competition, they interfere with what has become It is referred to as competitive ability or mezze.

The concept of competitive advantage:

1. The feature is defined as the set of skills, technologies, resources and capabilities that management can coordinate and invest to achieve higher values and benefits for customers than competitors and to confirm the state of excellence and difference between the organization and its competitors. (Mustafa, 2001, p. 121)
2. The competitive advantage is the added value of an enterprise that is solely specific to a business and which gives customers more or different from what competitors offer in the market, where the enterprise can offer a range of benefits more than the competitor or offer the same benefits at a lower price. (Ahmed, 2002, p. 191)

A comprehensive concept of competitive advantage:

Competitive advantage is primarily linked to both administrative competition in its various structures and human competition, whether exploited human resources or targeted human resources, with which contemporary organisations seek to meet the challenges of ensuring survival and excellence in the competitive arena, so achieving competitive advantage is based on the optimal exploitation of the potential and resources of all kinds available to the organisation on the one hand, and the optimal exploitation of the potential and resources of all kinds available to the organisation on the other.

Dimensions of competitive advantage :The researchers differed on the pillars and dimensions of competitive advantage to several directions, including:

Direction 1: Sees competitive advantage as two dimensions it seeks to achieve (Haidar, 2002, pp. 8-9):

The first dimension is the value perceived by the customer: achieving the organization's competitive advantage if customers realize that they only receive higher value for their dealings with the organization, and the value is not limited to comparing price and quality, as the critical element is due to the extent to which the customer is convinced of the products or services provided by the organization

Dimension 2: Excellence:

In the context of achieving excellence, the organization provides products or services that are difficult to replicate and imitate, listing its financial, human, and even regulatory resources, distinguishing its products or services from other competitors, and gaining a cost advantage through follow-up to control and control (Ammar, 2002, p. 12).

Direction 2: The competitive advantage has five dimensions that the Organization seeks to achieve:

Cost: Organizations seeking a larger market share as a foundation for success and excellence offer their products at a lower cost than competitors. (Evans, Robert, & david, .2007, p. 124)

Quality: quality is a significant competitive advantage because it indicates that things are done correctly in order to provide products and services that meet the needs of customers. Customers expect or see in advertising quality products and services that meet their desired characteristics; organizations that do not provide quality products and services that meet customers' needs, desires, and expectations cannot survive and succeed in competing behavior. (Mohammed, 2004, p. 45)

Flexibility: Flexibility is the foundation for achieving the organization's competitive advantage by responding quickly to changes in product design and service delivery to meet the needs of customers. (Talib, 2012, p. 260)

Delivery: Following delivery is the fundamental basis for market competition between organizations by focusing on reducing time limits and speed in the design and delivery of new products, as well as the level of performance in the service and its speed directed at customers as soon as possible. There are three post-delivery priorities that deal with time: delivery speed, scheduled delivery speed, and development speed. (Ghazi & al-Mutair, 2010, p. 30)

Innovation Creativity: Some writers and researchers include creativity as a dimension of competitive advantage, where the individual's process or activity results in a new product or thing, as well as the ability to adopt and put these ideas into practice.

3. Field study at BADR Agriculture and Rural Development Bank

Boot:

To strengthen the theoretical study and add value to the subject, we prepared a form (questionnaire) that reflects the responses of employees of the Agricultural and Rural Development Bank BADR Agency, where we seek to achieve the main goal of the study through this chapter, which is to reveal the role of financial technology innovation in achieving competitive advantage in agricultural banks and rural development BADR.

In addition to the study model, members of the study community and the study sample will be described, as will the study tool used and the methods of designing and preparing it as such its stability and sincerity.as well as a description of the procedures used in the legalization and application of the study tools and statistical treatments used in the study and questionnaire paragraph analysis, and finally the testing of the study's hypotheses in order to reach the study's conclusions and recommendations.

Systematic projection and study procedures

Study application requirements

This requirement will address the default model of the study and the methods and methods adopted in the applied study of this study, which includes the research community and the sample studied.

Community study "BADR Agricultural and Rural Development Bank Workers"

First: Introducing BADR

The Agricultural and Rural Development Bank emerged from the reorganization of the National Bank of Algeria on March 13, 1982, and was tasked with financing the agricultural sector with a variety of activities to remove all obstacles that halted the development of this sector.

About the emergence of BADR

The National Bank, which is responsible for financing the agricultural sector, has shown a significant deficit and shortage in this task due to the increasing and continuing needs of the agricultural sector, necessitating the establishment of another bank that is fully tasked with this task in private.

The Agricultural and Rural Development Bank was established under Order 82/206 of March 13, 1982, following the regulatory and financial restructuring of the banking sector, with the goal of financing private and public agricultural, industrial, irrigation, fishing, and all activities aimed at developing the rural sector.

The Agricultural and Rural Development Bank is a public institution with moral personality and financial independence but is under the guardianship of the Ministry of Finance.

Phase 1: The Agricultural and Rural Development Bank was established following the restructuring of the National Bank of Algeria, where it launched with a capital of 1 billion Algerian dinars and 140 agencies ceded by the National Bank, and during its early years of inception, the Bank sought to impose its presence in rural areas by opening many agencies. Following 1988, as part of economic reforms, the Agricultural and Rural Development Bank was converted into a joint stock company with a capital of 2.2 billion Algerian dinars divided into 2,200 shares worth 1 million Algerian dinars each.

Phase 2: Following the passage of the Monetary and Loan Act, which gave banks greater autonomy and transformed it into the Agricultural and Rural Development Bank, it began its various tasks of granting loans and encouraging the process of saving both types of interest and without interest, and has expanded its horizons to other areas of economic activity, particularly the sector of small, medium, and small economic enterprises. As a result, the Agricultural and Rural Development Bank can be defined as "a commercial bank that can collect deposits, whether ongoing or for an order."

Phase 3: This phase was characterized by the need for the effective intervention of public banks to resurrect a new breath in the field of investment promotion and make their activity and level of return in line with the rules of the market economy and within the framework of financing the economy within the new economic directives the Bank of Agriculture and Rural Development worked to change the lending policy where it greatly increased the volume of loans for small and medium enterprises and at the same time developed its level of performance in line with the deep economic and social transformations and in response to the aspirations of customers and investors, the Bank now embraces 2900 An agency and 36 regional directorates where the Bank for Agriculture and Rural Development employs 7,000 workers between a framework and an employee and due to the density of its network and the importance of its human formation, this bank was ranked in the dictionary of the Magazine of Banks (i 2001) in the first place in the ranking of Algerian banks.

Second: The tasks and functions of the Agricultural and Rural Development Bank (BADR(

The Agricultural and Rural Development Bank's mission is to carry out all banking operations and financial credits in all their forms, as well as to grant loans and assistance to the entire agricultural sector and to develop agricultural and industrial agricultural businesses, and the Bank does all banking operations on loans, exchange, and treasury related to its business in order to manage or use its funds and to participate in the collection of national savings. Its resources are as follows:

- Its core capital and reserves.
- Immediate and fixed-term deposits received from the public.
- Treasury's contributions to finance development programs.
- All other financial outcomes and means resulting from his work.

The posts can be summarized as follows:

- The Development Bank accepts current term deposits from any natural or moral person and borrows funds at different times.

- The Development Bank grants medium-term loans aimed at creating or renewing the fixed capital of debtors.
- Supporting Farmers' projets.

Third: The organizational structure of the regional complex for exploitation BADR by management

- Director
- Deputy Director
- Department of Business Affairs
- Accounting Department
- Automated Media Department

Fourth: Introducing the Agency of the Bank for Agriculture and Rural Development in ADRAR (Agency 252 Bank "BADR")

The agency is located in the center of ADRAR near Martyrs Square, where this site is witnessing a large movement to include various vital centers, commercial complexes and departments, in addition to the presence of agencies for other banks, namely the Algerian people's loan CPA, the Algerian National Bank BNA, and not far from it is the local development bank BDL. The Agency also includes the regional complex, which distinguishes it from the above-mentioned agencies, whose regional complexes are based in Bashar and Oran.

- It has capabilities that help it perform its tasks with qualified human and physical capabilities developed to facilitate work.
- It provides its services at the level of the fund's interest, the exploitation department, the external dealing department, and the management cell.

The study community:

The study community refers to "the group of elements or individuals that are interested in a particular study. [20] And in our study we selected BADR Agriculture and Rural Development Bank agency as a study community.

The study community may be one of all about 70 BADR employees working in various interests.

Sample study

The size of the community researched is represented by all 60 BADR agricultural and rural development bank personnel and it has been confirmed that the sample fits with the community according to the following equation:

▸By applying the Stephen Thompson equation:

The sample of the study was calculated based on the following equation [21] Sample size:

$$\mathbf{n} = \frac{N * p(1-p)}{\left[\left[N - 1 * \left(\frac{d^2}{z^2}\right)\right] + p(1-p)\right]}$$

N: The size of the study community which is 70

Z: The standard grade corresponding to the confidence factor in which the results are circulated is (99%) and thus the standard grade (1.96).

d: The percentage of error allowed has been considered to be within (1%).

P: The presence of the phenomenon, property and neutral where it was adopted by (50%).

In the previous equations, by taking the size of the community 70, we find that the sample size is estimated at:" 59", i.e. 86.66% of the size of society, and distributed 59 questionnaires by the number of members of the sample and the study community and 5 were recovered 2 questionnaires, and after examining the questionnaires, 52 questionnaires were accepted for their validity to study, bringing the number of questionnaires to be subject to statistical analysis to 52, or 74.28% of all questionnaires distributed from the study community.

Table N° 01
Number of forms used

The size of society	70	100%
Distributed questionnaires (sample)	59	84.28% of the size of society
Questionnaires retrieved	52	74.28% of sample size
Study able questionnaires	52	74.28% sample studied

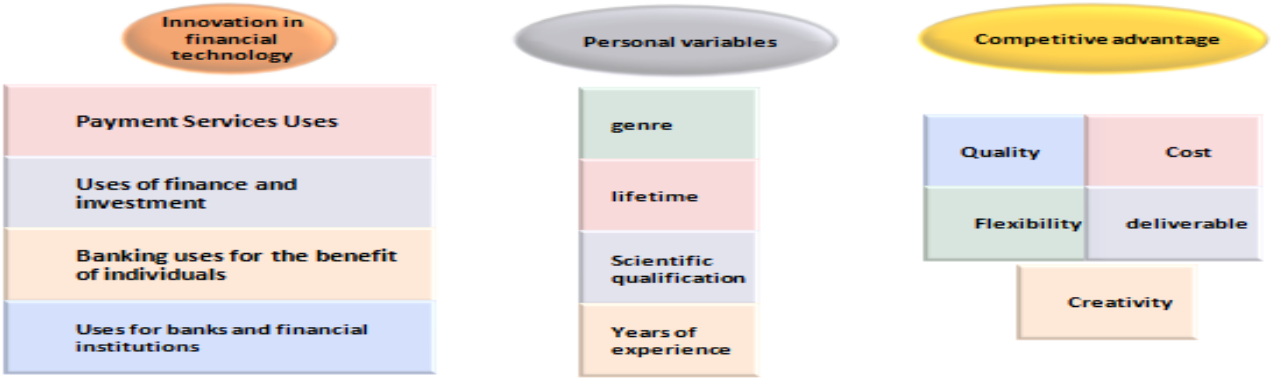
Source: Prepared by researchers

Study variables and model

Study variables:

In our study, there are two main variables: innovation in financial technology and competitive advantage, where innovation in financial technology is an independent variable, and competitive advantage is a dependent variable and each variable is branching out sub-variables as described in the following form:

Figure N° 01
Variables and model of study



Source: Prepared by researchers

Design of the study tool

Through the nature of the data to be collected, the curriculum and available possibilities, we found that the appropriate tool for achieving the objectives of the study is (resolution), as well as the adoption of other tools in data collection such as interviews and observations.

In order to measure the level of innovation in financial technology and the competitive advantage of the study sample, we have resorted to the design of a questionnaire by looking at the theoretical framework of the topic of innovation in financial technology, competitive advantage and some of the measures adopted in previous studies.

Preparing the questionnaire:

Questionnaire: Is a way to collect the data needed to verify the hypotheses of the problem under study, or to answer search questions. (Barakat, 2012-2013, p. 07)

In the preparation of the questionnaire, we adopted a set of points, the most important of which are:

- Mention the purpose of the study to ensure useful answers.
- We relied on simple methods, short paragraphs and terms in circulation in the preparation of questionnaire questions.

Questionnaire structure: The questionnaire is three-pronged and is as follows:

The first axis: this axis included the personal and functional data of the sample members in question and this information is represented in (type- age- scientific qualification - years of experience.(

Axis II: This axis includes innovation in four-dimensional financial technology with 19 words

Axis 3: This axis includes the competitive advantage of five entries and includes 20 words

The five-year Likert scale was adopted in the questionnaire according to the scale grades shown in the table.

Table N° 02
Lickert Pentagram by Scale

Phrases	strongly disagree	disagree	neutral	agree	strongly agree
Degree of approval	1	2	3	4	5

Source: Prepared by researchers

Statistical Tools

In order to facilitate the statistical analysis process and after the final collection of the questionnaire forms, we compiled and processed the data collected using the Statistical Analysis Program (23* spss)

Spss: Is a program that "is used to enter, make statistical calculations and extract statistical graphs using menu bar commands and dialog boxes". The word spss is the abbreviation for the full label of the program « Statistical Package for Social Sciences ». (al-Bahr & Al-Tanji, 2014, p. 15) For the collection and tab of information on the sample of the study, we prepared it in tables, and for the responses of the sample members collected and tabled from the spss program, which contains a set of statistical tools used in good analysis of computational outputs, in this study we based on the following statistical tools:

- **Repetitions and percentages:** to identify the personal and functional characteristics of the study sample members, as well as to determine the responses of the sample members to the direction of the expressions of the questionnaire axes.
- **Cronbach's Alpha:** One of the most famous measures of questionnaire stability, it depends on the calculation of the internal correlation between question answers.
- **Standard Deviation** is the square root of contrast, and is also a data dispersion calculation tool. (Barakat, 2012-2013, p. 07) and measures deviation in the sample members' answers to their computational medium
- **Mean:** The value given to each of the group's vocabulary would have been equal to the total original values and symbolized by the x code.
- **Spearman Link Coefficient:** Use this coefficient to see how the degree of each questionnaire statement relates to the overall degree of the axis to which it belongs (internal consistency of the study tool).
- **Linear regression factor:** This test was used to predict the use of innovation in financial technology as a mechanism for achieving competitive advantage.
- **Range:** To see the difference between the largest and smallest readings in the reading group, and to determine the length of the five-year Likert scale cells used in the questionnaire, the range was calculated between the largest and smallest value of the Likert scale scores (5-1=4), and then divided by scale grades to get the correct cell length. That is, (4/5=0.8), after which this value is added to the lowest value in the scale, which is (1) in order to determine the upper limit of the category (0.8+1=1.8), so we get the following form:

Table N° 03
Likert Pentameter

Degree of approval	Medium field and relative importance	Response level
strongly disagree	1 to 1.8	Too low.
disagree	From 1.81 to 2.6	Low
neutral	From 2.61 to 3.4	Medium
agree	3.41 to 4.2	High
strongly agree	4.21 to 5	Too high.

Source: Prepared by researchers

The sincerity and stability of the study tool

The validity of the questionnaire means that it represents the well-studied community, i.e., the answers give us the information for which the questions were drawn, and stability means that if this questionnaire is redistributed to another sample of the same community and the same sample size, the results will be close to the results obtained from the first sample.

Stability of the study tool:

To ensure the stability of the study tool, we use the Alpha Cronbach coefficient and calculated according to the following equation:

$$\propto = \frac{K}{\mathbf{k-1}}\left(1 - \frac{\sum_{i=1}^{k} \sigma_{yi}^2}{\sigma_x^2}\right)$$

Where: **K:** Number of questions σ_{yi}^2: Standard deviation of i question answers

σ_x^2: Standard deviation of all answers (answers to all questions)

By performing the steps of stability on the sample in the "Alpha-Cronbach" method to measure the stability of the resolution, the total stability factor for the resolution was calculated in addition to the total stability of the resolution axes.

Table N° 04

Alpha-Cronbach stabilization factor for the axes and dimensions of resolution

Statement	Number of paragraphs	Alpha-Cronbach Stability Labs
Total stability of the first hub innovation in financial technology	**19**	**0.931**
Total stability of the second axis competitive advantage	**20**	**0.924**
Total stability of resolution	**39**	**0.959**

Source: Prepared by researchers based on program outputs (23* SPSS)

Table No (04). 0.924 for the competitive advantage hub and the overall stability factor of the questionnaire was 0.931 for the financial technology innovation hub. 59, which is a very high coefficient, which indicates the stability of the results to be obtained, i.e., the questionnaire has a high degree of stability, and we conclude that if it were distributed again, the same results would be given to the same sample or category, from which the results of the questionnaire and its ability to achieve objectives can be relied upon. The study.

Virtual honesty of the study tool:

To find out the sincerity of the study tool in measuring and testing the hypotheses developed on the basis of the study, it was presented to a group of arbitrators with experience and competence to take their views and benefit from their opinions and to verify the appropriateness, integrity and accuracy of the language and scientific formulation of the questionnaire phrases and the extent to which the questionnaire covered the problem of the study, and their observations were introduced and some phrases and paragraphs were reconstituted in accordance with the required amendments, in a way that adjusts the balance between the contents of the questionnaire and its paragraphs, where the questionnaire was achieved in its final form.

Applied honesty of the study tool:

After verifying the apparent honesty of the study tool, it was applied in the field to the total sample data, where the correlation coefficient was calculated to see the degree of correlation between each paragraph with the dimension to which it belonged within the questionnaire axes, and was limited to two numbers after the interval. This is shown by the tables loyal to Spearman's correlation transactions for independent variable paragraphs (innovation in financial technology) and the dependent variable (competitive advantage).

Table N° 05

Spearman Link Coefficients for Axis of Innovation in Financial Technology paragraphs in the overall degree of dimension

N	Phrases	Degree of connection to dimension
1	The Bank for Agriculture and Rural Development is accredited BADR Smartphone Payment Mechanism	0.85**
2	He owns the Bank for Agriculture and Rural Development BADR Credit Cards for Electronic Payment	0.57**
3	He runs the Bank for Agriculture and Rural Development BADR e-commerce payment flows	0.82**

4	The Bank for Agriculture and Rural Development is accredited BADR External Transfer Forms	0.81**
5	The Bank for Agriculture and Rural Development provides BADR Electronic payment services for individuals	0.59**
6	The Bank for Agriculture and Rural Development contributes BADR brings the bank closer to the citizen by dealing electronically.	0.70**
7	Supports the Bank for Agriculture and Rural Development BADR Individuals in managing their personal money remotely	0.79**
8	The Bank for Agriculture and Rural Development adopts BADR Philosophy of working in cooperation with individuals and citizens electronically.	0.80**
9	The Bank for Agriculture and Rural Development is accredited BADR A method of facilitation in financial transactions for individuals.	0.73**
10	The Bank for Agriculture and Rural Development allows BADR Using the smartphone in financial transactions (account statement, money transfers...)	0.74**
11	The Bank for Agriculture and Rural Development is accredited BADR is a clear financing scheme.	0.68**
12	The Bank for Agriculture and Rural Development is concerned with BADR by attracting individual savings.	0.78**
13	The Bank for Agriculture and Rural Development provides BADR Crowdfunding platforms for organizations and financial institutions, whether in the form of loans or investment at	0.70**
14	The Bank for Agriculture and Rural Development BADR Providing financial advice online	0.70**
15	The Bank for Agriculture and Rural Development helps BADR builds a positive culture among dealers.	0.80**
16	The Bank for Agriculture and Rural Development is keen BADR to innovate in financial technology to deliver Solutions for the banking sector the banker	0.78**
17	The Bank for Agriculture and Rural Development is keen BADR is innovating in FinTech on Development of organization management in relation to recording transactions	0.82**
18	Focuses and encourages the Bank for Agriculture and Rural Development BADR on Gathering and analyzing a large database of data using financial technology	0.73**
19	The Bank for Agriculture and Rural Development is keen BADR is innovating in FinTech on Information processing, risk management, tax management	0.69**

** D at statistical significance level 0.01

* D at statistical significance level 0.05

Source: Prepared by researchers based on program outputs (23* SPSS)

Table No (05) shows that the coefficients of the second axis paragraphs link innovation in financial technology range from 0.57 to paragraph 4 and 0.85 for the first paragraph, and all correlation coefficients ranged from the previous two values mentioned and were statistically significant at a moral level (0.01) indicating an internal consistency between all the terms of the innovation hub in financial technology with its overall grade.

Table N° 06

Spearman Link Transactions for Axis paragraphs of competitive advantage in the overall degree of dimension

N	Phrases	Degree of connection to dimension
01	The Bank for Agriculture and Rural Development seeks to BADR to provide high quality services.	0.87**
02	The Bank for Agriculture and Rural Development focuses BADR on research and development in improving the quality of the service process.	0.79**
03	The Bank for Agriculture and Rural Development is accredited BADR is based on the principle of continuous development to achieve outstanding quality.	0.82**
04	The Bank for Agriculture and Rural Development is used BADR Multiple methods of quality control.	0.77**

05	The employees of the Bank for Agriculture and Rural Development own BADR Multiple skills to do more than one job.	0.80**
06	The Bank for Agriculture and Rural Development can BADR Rapid response to the requirements of customers, clients and dealers	0.80**
07	The Bank for Agriculture and Rural Development is characterized by BADR is very fast in developing services according to the requirements of customers in a legal framework.	0.80**
08	He owns the Bank for Agriculture and Rural Development BADR The ability to respond to changing environmental conditions.	0.82**
09	The Bank for Agriculture and Rural Development follows BADR Cost Reduction Strategy.	0.85**
10	The services of the Bank for Agriculture and Rural Development are distinguished BADR at a lower rate compared to commercial banks.	0.76**
11	The Bank for Agriculture and Rural Development focuses BADR to optimize the use of its resources to reduce overall expenses.	0.73**
12	The Bank for Agriculture and Rural Development is used BADR Technology and resources available rationally and well.	0.60**
13	The Bank for Agriculture and Rural Development seeks to BADR for rapid response to the needs and aspirations of customers.	0.83**
14	The Bank for Agriculture and Rural Development seeks to BADR to provide quality services to customers.	0.60**
15	The Bank for Agriculture and Rural Development is committed to BADR on deadlines while providing services to customers.	0.76**
16	The commercial agency of the Bank for Agriculture and Rural Development seeks to BADR offers the best quality service.	0.76**
17	He owns the Bank for Agriculture and Rural Development BADR Special combination and skill set creative.	0.64**
18	He owns the Bank for Agriculture and Rural Development BADR tangible and intangible assets with a special feature.	0.73**
19	He owns the Bank for Agriculture and Rural Development BADR Unique competencies that are difficult to match and imitate.	0.79**
20	He owns the Bank for Agriculture and Rural Development BADR is a unique and highly innovative technology.	0.77**

** D at statistical significance level 0.01

* D at statistical significance level 0.05

Source: Prepared by researchers based on program outputs (23* SPSS)

Table No (06) shows that all correlation coefficients between each paragraph of the third axis show the competitive advantage and the overall rate of its paragraphs, through which it shows that the correlation coefficients are positive between 0.87 for the first paragraph and 0.60 for paragraph 12 that correlation coefficients are positive and statistically significant at a moral level (0.01), indicating an internal consistency between all the terms of the competitive advantage axis with its overall grade.

Description of the personal and descriptive characteristics of the sample

The description of personal variables will be addressed at bard Agricultural and Rural Development Bank.

Table N° 07

Distribution of the study sample according to the personal and descriptive characteristics of the sample

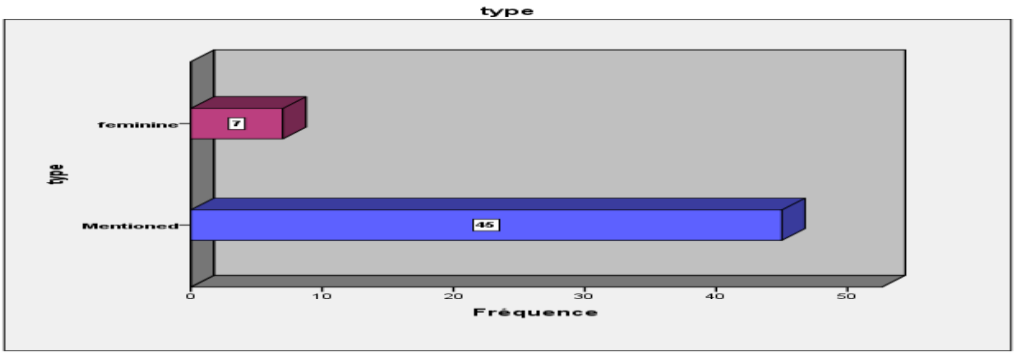
Variable	Category	Iteration (Number)	Percentage %
type	Mentioned	45	86.5
	feminine	7	13.5
age	25 year and less	6	11.5
	From 25 to 35 year	28	53.8
	From 36 to 45 year	13	25.0
	45 year and above	5	9.6
Academic qualification	secondary and less	5	9.6

	Senior technician	15	28.8
	University (Bachelor – Master)	19	36.5
	Postgraduate (Master's – PhD)	13	25.0
Career level	Framework	29	55.8
	help control	19	36.5
	executive assistant	4	7.7
Years of Experience	less than 5 years	7	13.5
	From 05 to under 15 years old	24	46.2
	From 15 years and over	21	40.4

Source: Prepared by researchers based on program outputs (23* SPSS)

Figure N° 02

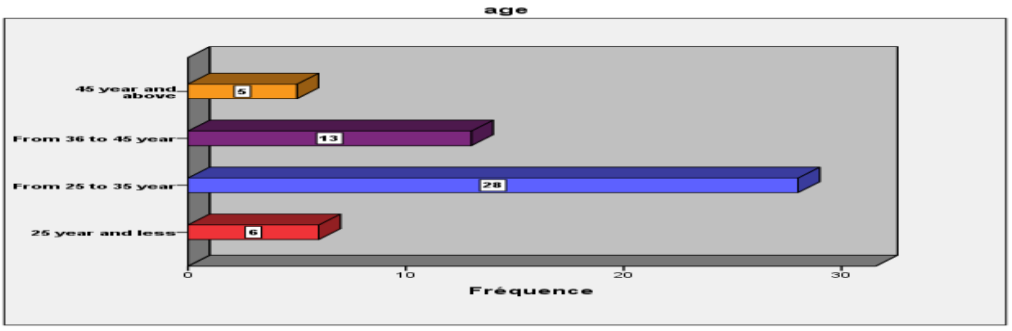
Distribution of the study sample according to the variable of scientific qualification



Source: Prepared by researchers based on program outputs (23* SPSS)

Figure N° 03

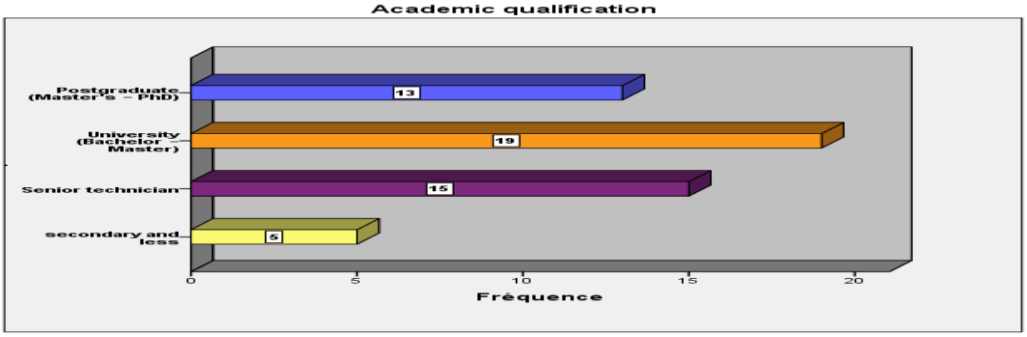
Distribution of the study sample according to the variable of scientific qualification



Source: Prepared by researchers based on program outputs (23* SPSS)

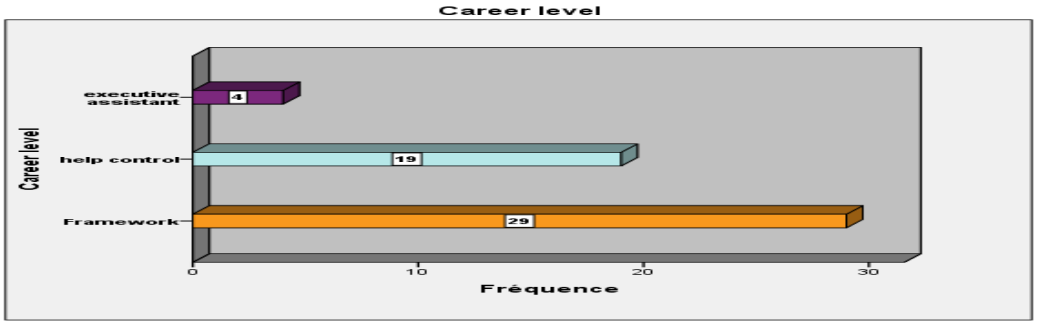
Figure N° 04

Distribution of the study sample according to the variable of scientific qualification



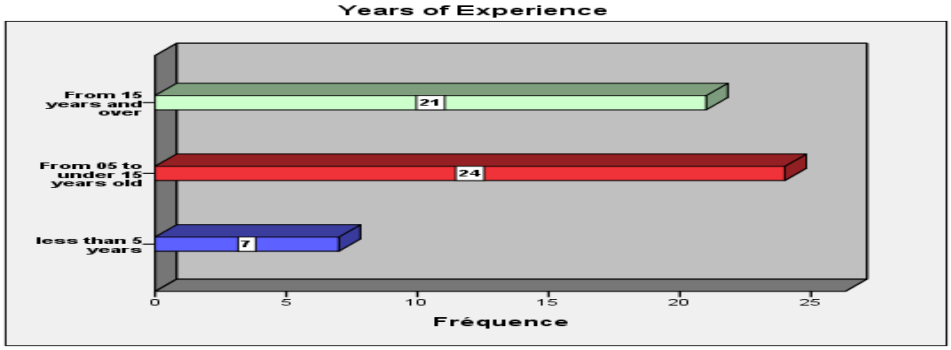
Source: Prepared by researchers based on program outputs (23* SPSS)

Figure N° 05
Distribution of the study sample according to age variable



Source: Prepared by researchers based on program outputs (23* SPSS)

Figure N° 06
Distribution of the study sample according to the type variable variable



Source: Prepared by researchers based on program outputs (23* SPSS)

The sample consists of 52 individuals, including 45 males and 07 females, as shown in table No (07) of the distribution of the study sample by descriptive variables, as the proportion of males was high compared to that of females, while the proportion of males was 86.5% and the proportion of females was 13.5% of the total sample

In terms of age variables, it appears that the employees of the institution are distributed among different age groups and that most of their ages range from 25 to 36 years of age by 53.8%, equivalent to 28 individuals, i.e., the youth group, followed by the age group 36 to 45 years of age. 25% or 13 individuals, and the age group under 25 is 11.5% equivalent to 06 individuals, as well as the age group 45 years and older by 09.6% equivalent to 05 individuals, this Distribution is due to the opportunity to equate the youngest age group with all other groups in order to try to give the youth group an opportunity to develop their abilities and maintain a peaceful age balance.

The table also shows that the group of workers with a university level of education (bachelor's degree) is the dominant group of (19) workers, which constitutes 36.5%, while the category of workers with a high technical level of education is followed by (15) workers, which constitutes 36.5%, while the category of workers with a high technical level of education is followed by (15) workers, which constitutes 1% 28.8 While the category of workers with a higher level of education (Master, PhD) comes in third place with (13) workers with 25%, while the category of workers with a secondary level and less ranked last with (05) workers, which constitutes 09.6% of the total sample studied.

In terms of the distribution of the sample according to the job variable, the tire category is the dominant category of (29) workers, which constitutes 55.8%, while the category of officers in control of (19) workers, which constitutes 36.5%, while the category of executive officers comes last ranked by (04) workers, accounting for 7.7% of the total sample studied.

While the sample members are distributed by years of experience in the field, the category of 24 workers in the category of 5 to under 15 represents 46.2%, while the group of experienced workers of 15 years with (21) workers representing 40.4% and finally the category of under-05s who number (07) workers by 13.5% of the total sample of the study.

Analysis of results related to the perceptions and response of study members to the dimensions of innovation in financial technology:

To find out the reality of innovation in financial technology at BADR, we will calculate the arithmetic averages and standard deviations of the responses of the study members to the paragraphs representing the focus of innovation in financial technology, in accordance with the component dimensions of this axis:

- dimension the uses of payment services.
- dimension banking uses for individuals.
- dimension the uses of finance and investment.
- dimension uses for banks and financial bodies.

Table N°08

Study Members' Response to The Dimensions of Innovation in Financial Technology

Statement		Arithmetic medium	Standard deviation	Relative importance	Response level
The first axis is innovation in financial technology	Payment Services Uses	3.33	0.95	03	Medium
	Banking uses for the benefit of individuals	3.38	0.75	02	Medium
	Uses of finance and investment	2.87	0.85	04	Medium
	Uses for banks and financial institutions	3.53	0.81	01	High

Source: Prepared by researchers based on program outputs (23* SPSS)

Table No (08) shows the results of an analysis after the uses of payment services, where the average calculation of this dimension (3.33), which means that it achieved the level of approval of the sample members with a moderate approval degree, which indicates the extent to which the uses of payment services at BADR bank payment services are provided.

Table No (08) shows the results of a post-banking analysis for individuals, with an average computational average of 3.38, which means that it has achieved the level of approval of the sample members with an average approval score, indicating the extent to which banking uses are provided for individuals at BADR agricultural and rural development bank.

Table No (08) shows the results of an analysis after the uses of finance and investment, where the arithmetic average for this dimension (2.87), which means that it achieved the level of approval of the sample members with a moderate approval degree, which indicates the extent to which the uses of financing and investment in the Agricultural and Rural Development Bank BADR are provided.

It appears through Table No (08) The results of an analysis after uses for banks and financial bodies, where the average calculation of this dimension (3.53), which means that it achieved the level of approval of the sample members with a high degree of approval, which indicates the extent to which uses are provided for banks and financial bodies at the Agricultural and Rural Development Bank BADR.

Analysis of the results related to the perceptions and response of the study members to the dimensions of competitive advantage:

We will do this analysis to find out the levels of competitive advantage achieved by the Agricultural and Rural Development Bank BADR from the point of view of the workers, where the calculation averages and standard deviations of the responses of the study members to the paragraphs representing the axis of competitive advantage were calculated. This is in accordance with the component dimensions of this axis:

- dimension quality.
- dimension flexibility.
- dimension cost.
- dimensiondélivre.
- dimension creativity.

Table N° 09

Study Members' Response to The Dimensions of competitive advantage

Statement		Arithmetic medium	Standard deviation	Relative importance	Response level
The second axis is competitive advantage.	quality	3.05	0.97	05	Medium
	flexibility	3.87	0.77	01	High
	cost	3.30	0.88	02	Medium
	delivery	3.29	0.83	03	Medium
	creativity	3.18	0.77	04	Medium

Source: Prepared by researchers based on program outputs (23* SPSS)

Table No (09) shows the results of a post-quality analysis, with an average computational average of 3.05, which means that it achieved the level of approval of the sample members with a medium approval score, which indicates the quality level at BADR agricultural and rural development bank.

Table No (09) shows the results of a post-flexibility analysis, with an average computational average of 3.87, which means that it has achieved the level of approval of the sample members with a high approval score, indicating the flexibility of BADR.

Table No (09) shows the results of a post-cost analysis, with an average calculation of this dimension (3.30), which means that it achieved the level of approval of the sample members with an average approval score, which indicates the cost level at BADR agricultural and rural development bank.

Table No (09) shows the results of a post-delivery analysis, with an average calculation of this dimension (3.29), which means that it achieved the level of approval of the sample members with a high approval score, indicating the level of delivery at BADR agricultural and rural development bank.

Table No (09) shows the results of a post-creative analysis, with an average computational average of 3.18, which means that it achieved the level of approval of the sample members with an average approval score, which indicates the level of creativity at BADR agricultural and rural development bank.

Testing the hypotheses of the study

The results of the first major hypothesis test: The first hypothesis states: H_1 there is a relationship between innovation in financial technology and the competitive advantage of the Agricultural bank and rural development BADR has statistical significance at the level of 1%.

Table N°10

Spearman link coefficient for study axes and dimensions of each axis

Statement	Spearman's link factor with the first hub is innovation in financial technology	Spearman link coefficient with the second axis competitive advantage	Moral level Sig
Payment Services Uses	0.777**	0.581**	
Banking uses for the benefit of individuals	0.866**	0.569**	
Uses of finance and investment	0.736**	0.635**	
Uses for banks and financial institutions	0.850**	0.508**	
The first axis is innovation in financial technology	1.000**	0.678**	**0.00**
quality	0.798**	0.676**	
flexibility	0.718**	0.623**	
cost	0.826**	0.481**	
delivery	0.735**	0.552**	
creativity	0.696**	0.406**	
The second axis is competitive advantage.	0.678**	1.000**	

** D at statistical significance level 0.01

* D at statistical significance level 0.05

Source: Prepared by researchers based on program outputs (23* SPSS)

Through table No (10) which shows the Spearman correlation coefficient of study variables, the correlation factor between innovation in financial technology and competitive advantage was 0.678 as a semi-strong package, and the value of the Sig morale level is less than (0.01) "0.01>0.00 ". On this basis, therefore, we reject the zero hypothesis $\mathbf{H_0}$and accept the alternative hypothesis$\mathbf{H_1}$ which assumes that there is a relationship between innovation in financial technology and the competitive advantage of the Agricultural Bank and rural development BADR with statistical significance at the level of 1%.

Results of the first sub-hypothesis test:

The statistical results in table No (10) indicate that the correlation coefficient for the after-use of payment services was 0.581 as an average package, and the value of the Sig morale level is less than (0.01)" 0.01>0.00" Thus, we reject the zero hypothesis $\mathbf{H_{0-1}}$ and accept the alternative hypothesis$\mathbf{H_{1-1}}$ which assumes that there is a relationship between the after-use of payment services and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

Results of the second sub-hypothesis test:

Statistical results in table No (10) indicate that the correlation coefficient for the distance of banking uses for individuals has reached 0.569 as an average package, and the value of the Sig morale level is less than (0.01) " 0.01>0.00"We therefore reject the zero hypothesis $\mathbf{H_{0-2}}$ and accept the alternative hypothesis $\mathbf{H_{1-2}}$which assumes that there is a relationship between the dimension of banking uses for the benefit of individuals and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

Results of the third sub-hypothesis test:

The statistical results in table No (10) that the correlation factor for the after-use of financing and investment has reached 0.635 as a semi-strong package, and the value of the level of morale Sig is less than (0.01) "0.01>0.00" and therefore we refuse The zero hypothesis$\mathbf{H_{0-3}}$ and we accept the alternative hypothesis $\mathbf{H_{1-3}}$ which assumes that there is a relationship between the after-use of finance and investment and the competitive advantage of the Agricultural and Rural Development Bank BADRthe statistical significance at the level of 1%.

Results of the fourth sub-hypothesis test:

The statistical results in table No (10) indicate that the correlation coefficient for the after-use of banks and financial bodies was 0.508 as an average package, and the value of the Sig morale level is less than (0.01) "0.01>0.00"We therefore reject the zero hypothesis $\mathbf{H_{0-4}}$ and accept the alternative hypothesis$\mathbf{H_{1-4}}$ which assumes that there is a relationship between after uses for banks and financial bodies and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

The results of the test of the second main hypothesis:

To show the result of the second main hypothesis, the decline in the level of innovation in financial technology and the competitive advantage of BADR agriculture and rural development bank must be studied as follows:

Table N°11

Results of linear regression analysis of the impact of innovation in financial technology on competitive advantage

Simple Link Coefficient (R)	Interpretation coefficient	Adjusted interpretation coefficient	Standard error
0.708[a]	0.501	0.489	0.48184

Source: Prepared by researchers based on program outputs (23* SPSS)

Table N°12

Results of the linear regression equation analysis of the impact of innovation in financial technology on competitive advantage

Variables	Regression equation		test	Level of significance
	Standard error	Transactions (B)	(T)	
Constant (other factors)	0.349	1.096	3.135	0.003
Innovation in financial technology	0.103	0.679	6.566	0.000

Source: Prepared by researchers based on program outputs (23* SPSS)

Shown from table No (11) The following:

The selection factor (R-deux) was 0.501 and the adjusted selection factor (R-readjust) was 0.489, while the estimated standard error was 0.489 and0.48184 The value of the selection factor explains 50% of the change in the value of the competitive advantage (dependent variable) that can explain the linear relationship between innovation in financial technology and the competitive advantage and the remaining 50% due to other factors affecting competitive advantage.

Shown from table No (12) The following:

The equation of the model of decline of competitive advantage over innovation in financial technology is the following formula:

Competitive Advantage = (0.679 * Innovation in Financial Technology) + 1.096

We also note that the value of sig is less than 0.01 and, on this basis, we reject the zero hypothesis $\mathbf{H_0}$ and accept the alternative hypothesis $\mathbf{H_1}$which assumes that there is a statistically significant impact relationship to innovation in financial technology and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

Results of the test of sub hypotheses of the second main hypothesis:

To test sub-hypotheses, a regression test was conducted to study the impact of the dimensions of financial technology on competitive advantage:

Table N° 13

Results of the linear regression equation analysis of the impact of innovation dimensions in financial technology on competitive advantage

Independent variable	Regression equation		Standard Laboratory Beta	test (T)	Level of significance
	Standard error	Transactions (B)			
Fixed model	1.194	0.350		3.412	0.001
Uses of payment services.	0.148	0.098	0.211	1.508	0.139
Banking uses for individuals.	0.083	0.159	0.093	0.522	0.603
Uses of finance and investment.	0.359	0.112	0.454	3.198	0.002
Uses for banks and financial institutions.	0.094	0.140	0.113	0.671	0.505

Source: Prepared by researchers based on program outputs (23* SPSS)

Results of the first sub-hypothesis test:

Through the table No (13) we find that:

The equation of the competitive advantage regression model after the uses of payment services is the following formula:

Competitive advantage = (0.148 * payment services uses) + 1.194

We also note that the sig value is greater than 0.01 and, on this basis, we accept the zero hypothesis $\mathbf{H_{0-1}}$ and reject the alternative hypothesis $\mathbf{H_{1-1}}$ which assumes that there is a statistically significant impact relationship to the dimension of payment services uses and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

Results of the second sub-hypothesis test:

Through the table No (13) we find that:

The equation of the model of decline of competitive advantage over banking uses for individuals is the following formula:

Competitive Advantage = (0.083 * Banking Uses for Individuals) +1.194

We also note that the value of sig is greater than 0.01 and, on this basis, we accept the zero hypothesis $\mathbf{H_{0-2}}$ and reject the alternative hypothesis $\mathbf{H_{1-2}}$ which assumes that there is a statistically significant impact relationship to the dimension of the uses of finance and investment and the competitive advantage of the Agricultural and Rural Development Bank BADR is statistically significant at the level of 1%

Results of the third sub-hypothesis test:

Through the table No (13) We find that:

The equation of the model of decline of competitive advantage over the uses of finance and investment is the following formula:

Competitive advantage = (0.359 * financing and investment uses) + 1.194

We also note that the value of sig is less than 0.01 and, on this basis, we reject the zero hypothesis $\mathbf{H_{0-3}}$ and accept the alternative hypothesis $\mathbf{H_{1-3}}$ which assumes that there is a statistically significant impact relationship to the distance of banking uses for individuals and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

Results of the fourth sub-hypothesis test:

Through the table No (13) We find that:

The equation of the model of decline of competitive advantage after uses for banks and financial bodies is the following formula:

Competitive advantage = (0.094 *uses for banks and financial bodies) +1.194

We also note that the value of sig is greater than 0.01 and, on this basis, we accept the zero hypothesis $\mathbf{H_{1-4}}$ and reject the alternative hypothesis $\mathbf{H_{0-4}}$ which assumes that there is a statistically significant impact relationship to the dimension of uses for banks and financial bodies and the competitive advantage of the Agricultural and Rural Development Bank BADR with statistical significance at the level of 1%.

The current research paper illustrates a new type of modern variable that is influenced by the realization of the importance of resources, namely innovation in financial technology, and also reinforces the idea that innovation in financial technology is the tool by which it affects institutions in achieving competitive advantage and may take multiple forms such as combined or multidimensional effects.

Conclusion

In this research paper, we have been exposed to the role of innovation in financial technology in achieving competitive advantage at BADR. Through a questionnaire distributed to the sample of the study, the questionnaire included three axes, the first included personal and functional data, the second included the variable innovation in financial technology in its dimensions, and the third axis included the dimensions of competitive advantage and these dimensions answer the problem that was formulated and after the retrieval of the questionnaire was addressed by the program 23* spss through the measurement of the stability factors of the questionnaire, and after we carried out different statistical treatments in order to verify the role of innovation in financial technology in Achieving competitive advantage in BADR agricultural and rural development bank. The results were presented and interpreted and through this we are shown the following results:

This research paper seeks to reach its goal and answer the problem of the study of knowing the role of innovation in financial technology in achieving competitive advantage in the Agricultural and Rural Development Bank BADR, and this was done through the adoption of two main hypotheses to know the relationship between the two variables and the level of realization of this relationship and the impact of the independent variable on the dependent variable and verified where the zero hypothesis was rejected $\mathbf{H_0}$and accepted the alternative hypothesis $\mathbf{H_1}$ which assumes that there is a relationship between innovation in Financial technology and competitive advantage at BADR agriculture and rural development bank have statistical significance at 1%. It also rejects the zero

hypothesis $\mathbf{H_0}$ and accepts the alternative hypothesis $\mathbf{H_1}$which assumes that there is a statistically significant impact relationship to innovation in financial technology and the competitive advantage of the Agricultural and Rural Development Bank BADR.

In the light of what has been mentioned, it is clear from the results of the study that innovation in financial technology has a role to play in achieving competitive advantage, from which we can say that BADR bank uses innovation in financial technology but at varying levels for each dimension and the Bank seeks to achieve competitive advantage.

Study results:

From our study, we have drawn a set of results, including:

BADR adopts an average degree of innovation in financial technology and competitive advantage, reflecting the Bank's awareness of the role of financial technology innovation in BADR's competitive advantage.

•There is a semi-strong, statistically significant correlation at the 1% level of innovation in financial technology and competitive advantage in BADR, expressed by a correlation factor of 0.678% on a statistical exchange of 1%. These findings were achieved by establishing the first main hypothesis of the study by establishing the four sub-hypotheses.

• BADR Agriculture and Rural Development Bank adopts innovation in financial technology through the point of view of its employees, relative to the value of the average calculation of innovation in financial technology in all its dimensions.

•The level of competitive advantage achieved by BADR agricultural and rural development bank is high due to the value of the average calculation of the dimensions of competitive advantage entries.

• A statistically significant impact relationship for innovation in financial technology and competitive advantage in agricultural and rural development bank BADR has statistical significance at 1%.

Recommendations:

The most important recommendations of this research paper included:

- The need to improve the level of innovation in financial technology at BADR agricultural and rural development bank by activating the dimensions of innovation in financial technology where the results of the study reflect the average level of it.
- BADR Agriculture and Rural Development Bank must continue to adopt and develop the concept of innovation in financial technology.
- •Pay attention to the moral requirements of innovation in financial technology in order to achieve competitive advantage.
- Discussion of decisions on the development of financial technology.

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