مجلة تنمية الرافدين

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Research Paper

Evaluation of the Financial Literacy Among Academic Staff: An Exploratory Survey from University of Duhok

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Abstract

This study aims to evaluate the extent and level of financial literacy among academic staff of universities in the Kurdistan region of Iraq. A structured questionnaire was distributed via the official email of the quality assurance directorate, which reached more than 1500 academic staff; only 161 responded. revealing a significant lack of knowledge about managing personal finances, investment strategies, and financial markets. With 58% not holding foreign currency and only 8% correctly identifying essential financial statements, the findings highlight a pressing need for improved financial education. About 63% of respondents declared that they prefer to open and use government bank account instead of bank account because it's less trusted and half of the respondents spent more than 150,000 Iraqi dinars for car fuel only per month. Besides half of the surveyed academic and administrative staff do not set aside funds. Recommendations include workshops, community support programs, and enhanced use of FinTech applications to empower individuals in managing their finances effectively and to foster better financial literacy among the population.

Keyword:
Financial literacy, Financial education, Financial knowledge

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ورقة بحثية

تقييم الثقافة المالية بين الكادر التدريسي: دراسة استطلاعية في جامعة دهوك

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المستخلص

تهدف هذه الدراسة إلى تقييم مستوى الثقافة المالية بين الكادر الأكاديمي للجامعات في إقليم كوردستان العراق. تم توزيع استبانة عبر البريد الإلكتروني الرسمي لمديرية ضمان الجودة والذي وصل إلى أكثر من 1500 من الكادر الأكاديمي، استجاب منهم 161 فقط. كشفت النتائج عن نقص كبير في المعرفة حول إدارة الأموال الشخصية واستراتيجيات الاستثمار والأسواق المالية. اوضحت النتائج بأن 58% بعدم امتلاك للعملات الأجنبية وفقط 8% تمكنوا من تحديد البيانات المالية الأساسية بشكل صحيح، تسلط النتائج الضوء على الحاجة الملحة لتحسين التعليم المالي. صرح حوالي 63% من المشاركين بأنهم يفضلون فتح واستخدام حساب مصرفي حكومي بدلًا من حساب بنكي في المصارف الخاصة لأنها أقل موثوقية، كما أن نصف المستجيبين ينفقون أكثر من 150,000 دينار عراقي شهريًا على وقود السيارات فقط. بالإضافة إلى ذلك، فإن نصف الكادر الأكاديمي الذين شملتهم الدراسة لا يخصصون أموالًا للادخار. وتقدم هذا البحث بالعديد من التوصيات منها اعداد ورش العمل للكادر التدريسي في الجامعة ككل، بالإضافة الى البدأ بالبرامج الدعم المجتمعي وتغريز استخدام تطبيقات التكنولوجيا المالية لتمكين الأفراد من إدارة أموالهم بفعالية وتغريز الثقافة المالية بينهم.

الكلمات الرئيسة:

الثقافة المالية، التعلم المالي، المعرفة المالية

مجلة

تنمية الرافدين

(TANRA): مجلة علمية، فصلية، دولية، مفتوحة الوصول، محكمة.

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1. Introduction

Financial literacy among academic staff at universities is increasingly recognized as a critical area of concern and opportunity. Being involved in education as well as research, there is a certain responsibility that comes with understanding finances at any level. It impacts not only one's well-being but also their proficiency as a mentor. Managing finances, planning for retirement, investing, and maintaining economic stability are some of the areas significantly impacted by the balance of financial literacy available to a member of a faculty academic staff. There is a wide gap understanding how to mitigate financial knowledge deficiencies in this particular group in this regard that enables building a coherent financially literate community within the universities. This helps in introducing the significance, the problems, and the ways of tackling financial literacy among the academic staff in higher education institutions (Callis et al., 2023).

Different financial advisors give different recommendations regarding setting liquid assets for emergency situations, however, most align with setting three to six months worth of expenses as a general rule. On the other hand, research estimates suggest over half of U.S. households do not have liquid savings equal to three months of non-discretionary expenses, which is concerning. Financial literacy, is a strong predictor that helps estimate the probability of having three months worth of savings, even when controlling for income and additional parental resources. Moreover, financial literacy indeed predicts such savings at all income levels. With these results, we can conclude that having an emergency fund is not just a matter of income, but rather derived from knowledge about finances. More, having significant illiquid wealth does not exempt one from being predicted with a lack of financial literacy, making them eligible to hold liquid savings. This suggests that families marked as "wealthy hand-to-mouth" may have advanced portfolio management worse than assumed, leading to blunders instead of designed optimized strategies.(Bhutta et al., 2023)

1.1.Problem Statement

Dividing family income into ten different expenses on a monthly basis involves a systematic approach to financial management that ensures stability and effective budgeting. Common allocations include housing costs such as rent or mortgage payments, utilities such as electricity and water bills, transportation expenses including fuel and maintenance, groceries and household essentials, healthcare expenditures such as medical bills, education costs for children or ongoing personal development, savings and investments for future financial security, entertainment and leisure activities, debt repayments such as loans, and finally, miscellaneous expenses that cover unexpected or irregular costs. This structured approach helps families prioritize their spending, manage resources efficiently, and plan for both short-term needs and long-term financial goals.

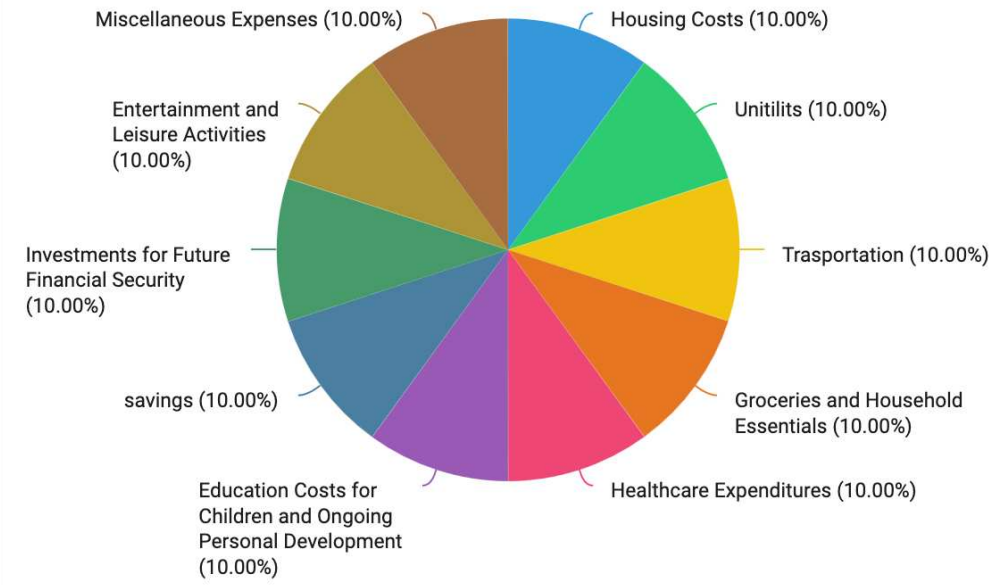


Figure (1). Proposal of 10% Financial Literacy Model

2. Objectives of the Study

The objectives of the study include:

1. To evaluate the current level of financial literacy among academic and administrative staff in the Kurdistan region, particularly in managing personal and family financial affairs.
2. To crosscheck whether academic staff at university of Duhok has the managed their income according to 10% family finance management as proposed by this research.
3. To identify specific areas where participants lack knowledge about key financial concepts, such as currency usage, investment strategies, and understanding of financial markets (e.g., the Iraq Stock Exchange).
4. To investigate the income stability of respondents and how it affects their ability to balance income and expenses, as well as their approach to financial management and planning.
5. To explore the potential for increasing the use of FinTech applications among staff and encourage the integration of digital tools to improve budgeting, savings, and investment practices through proposing targeted strategies and programs, such as workshops, seminars, and training courses, aimed at improving financial literacy among academic staff, with a focus on both personal finance and broader financial management principles.

3. Research Questions

The most important job of the banks is attracting more clients and lends more money as its basic financial services. Thus, the basic questions this research attempt to answer includes:

1. What is the current level of financial literacy among the academic and administrative staff in the Kurdistan region?
2. How do the staff members manage their personal and family financial affairs?
3. What is the level of awareness regarding financial markets in Iraq, particularly the Iraq Stock Exchange?
4. Do participants understand what financial instruments are traded, such as stocks, bonds, and cryptocurrencies?
5. Are they aware of the benefits of diversifying investments across different sectors or financial securities?
6. Do they have sufficient knowledge of the number and type of financial statements companies must prepare?
7. What initiatives, training programs, or educational resources can help enhance their financial management skills?
8. What are the perceptions of FinTech apps, and how can their functionalities be promoted for effective budgeting, savings, and investment practices?

4. Significance of the Study

The academic and practical importance of the study are elaborated below:

4.1.Academic Significance.

1. This study contributes to the growing body of literature on financial literacy by providing specific insights into the financial knowledge and behavior of highly educated individuals in the Kurdistan region. It fills a gap in understanding how financial literacy correlates with educational status in a specific cultural and regional context.
2. By focusing on financial behaviors and knowledge in Iraq, particularly in Kurdistan, the study provides valuable data on the unique financial challenges and misconceptions prevalent in the region. This could serve as a foundational study for further research on financial education in Middle Eastern countries.
3. The study highlights the disconnect between academic achievement and practical financial knowledge, encouraging future research into how educational curricula, especially in higher education, can be revised to integrate more comprehensive financial literacy training.
4. Findings from this study can egnite new investigations and explorations to assess the level of engagement and understanding of financial markets in the Kurdistan region, offering a baseline for future academic work that investigates the educational, cultural, economical and social influences on financial behaviors.

4.2.Practical Significance:

1. The findings highlight the importance of developing targeted financial education programs, new academic practical courses, updating the current curriculum, seminars, and workshops that are easy to use and available to the teaching and non-teaching staff. This may result in the formulation of more sophisticated campaigns and strategies for financial literacy that incorporate the concerns and issues ascertained in the study.
2. Lack of knowledge in personal and family financial management is proven in this study, Indicates that there is a gap concerning practical tools and resources help individuals in the Kurdistan region and Iraq with income, budgeting, and savings management. Implementing these programs may enhance overall financial well-being.
3. Due to fact that a big proportion of respondents lack knowledge of financial markets in Iraq, the study points to a need for more education on investment opportunities and market participation, potentially leading to increased engagement in the Iraq Stock Exchange and other financial markets.
4. Through recognizing a gap in understanding the practitionality of FinTech applications, the study highlight the importance of promoting these tools.
5. The study highlights a lack of understanding the financial risk management. Developing training tools that guide people on how to protect themselves from unexpected monetary disturbances and the need for emergency funds is an important practical implication
6. The study's findings on financial literacy and personal finance management can inform policymakers about the financial vulnerabilities of certain populations, encouraging the development of government assistance programs and subsidies to better support families and individuals facing financial challenges.

By addressing both academic gaps and practical needs, this study provides a comprehensive approach to improving financial literacy and management in the Kurdistan region, ultimately enhancing personal financial stability and broader economic participation.

5. Limitation of the study:

This research contains many limitations as any research in context of luck of information such as Kurdistan region and Iraq. Below are some of these limitations.

1. The sample size of respondents may not fully represent the entire population of the Kurdistan region or Iraq, which limits the generalizability of the findings. As the sample is likely to include highly educated individuals, particularly university staff, the reported financial literacy levels may not accurately reflect those of the general public. In addition, the assumption that higher education staff possess higher financial knowledge could be impacted the explanation of the results, potentially skewing insights toward this specific segment of population.

2. Due to fact that the this study was conducted basically within the Duhok city only, which may not capture the financial behaviors and literacy levels of the academic staff in the other cities in Iraq. The economic and financial conditions particularly salaries and bonus, access to resources, cultural, social, security factors, life style, and general norms can vary significantly across different cities in Iraq.
3. The primary data collection is relying on self-reported responses, which may lead to biases such as overestimation of knowledge or misunderstanding of certain financial concepts. Therefore, the respondents did not given a fully accurate responses.
4. The focus of the current study was on fundamentals of financial literacy and investment knowledge, that could not provide a comprehensive understanding of respondents' overall financial behavior or financial risk management practices. Besides, many important financial topics like debt management, credit utilization, and long-term financial planning has not been explored in details.
5. According to the findings, many respondents are lacking a comprehensive knowledge of financial markets, thus qualitative interviews or open-ended questions could have enriched the findings could have been useful to better understand specific gaps in their financial knowledge. The brevity of some survey sections might have prevented a fuller exploration of certain financial concepts.
6. Since the study focused on academic and administrative staff, the results may not represent the financial literacy levels of other occupational groups, such as workers in the private sector, informal labor market, or unemployed individuals.
7. The data reflects a specific point in time, and financial literacy levels, income stability, and market awareness can change over time due to economic conditions, government policies, and access to financial education programs.

These limitations highlight areas where future research can expand, adjust the scope, or employ different methodologies to gain a more comprehensive understanding of financial literacy and management practices across a wider population.

6. Scope of the Study

The study population is academic staff at public universities in Duhok and Zakho Independent administrative, while the targeted population is academic staff of University of Duhok, and the study sample is whom answered the official email from directorate of quality assurance via two links for two copies of questionnaire (one in Kurdish language via the link https://ee.kobotoolbox.org/x/2E9nsyeT , and the second in Arabic language via the link https://ee.kobotoolbox.org/x/vnyOonWr). While the research methodology has followed (Saunders & Lewis, 2023) research onion research flows, as shown below:

1. **Research Philosophy:** Understand the underlying beliefs or assumptions guiding the study on financial literacy. Positivism assumes that financial literacy can be treated as an objective and measurable phenomenon. Researchers employing this philosophy seek to identify specific, quantifiable indicators of financial knowledge, skills, and behaviours.
2. **Research Approach:**
3. **Research Strategy:** Define the overall strategy for the study.
4. Quantitative Research: Involves the collection and analysis of numerical data to measure and quantify financial literacy levels. Surveys are the most common tools used in this kind of studies.
5. **Time Horizon:** the research began on 11/2/2024.
6. **Data Collection Methods:** Identify methods for collecting data on financial literacy.

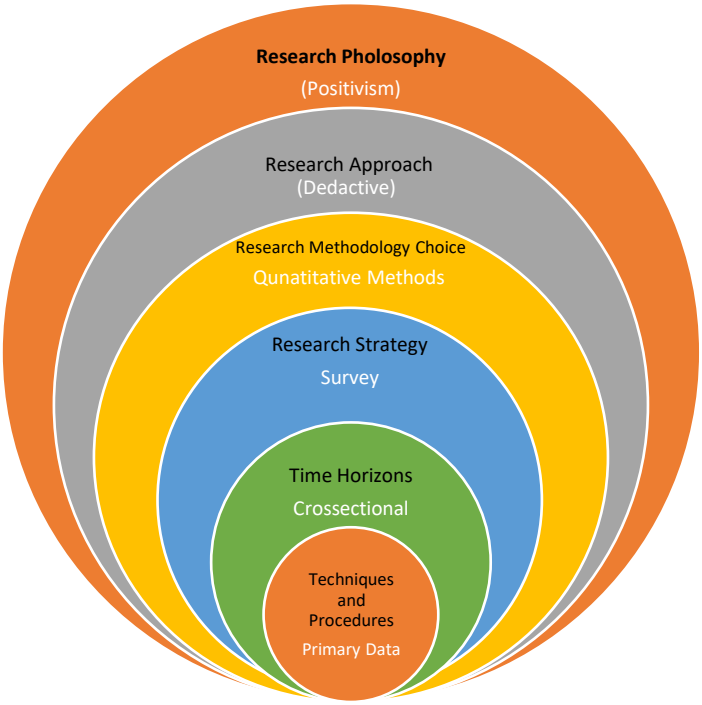


Figure (2). Research Onion

7. Financial Literacy Theories

Theories of the financial literacy provide a comprehensive understanding of the factors influencing financial literacy and the potential outcomes of improved financial education. These theories suggests that individuals plan their consumption and savings behaviour over their lifetime to achieve a stable consumption pattern. By that assumption financial literacy helps individuals understand and implement these plans effectively. Below are few of these theories:

7.1.Human Capital Theory

The theory that education and skills are investments in "human capital" (Becker, 1975) means that people gain benefits over time by enhancing their knowledge and abilities. This theory implies that learning about finance, investment and related topics is similar to making an investment in oneself. As education can improve one's productivity at work and lead to higher earnings, financial education can enhance an individual's financial decision-making, then increase the financial wellbeing.

7.2.Behavioural Finance Theory

One of the most integrated theories from psychology into the finance and investment sciences especially financial decision-making. Two main suggestion are that cognitive biases and emotions can affect financial decisions. While financial literacy can help individuals recognize and mitigate these biases. In general, financial literacy enables individuals to manage their emotions and biases more effectively, leading to smarter, more sustainable financial decisions that orient with their goals. (Thaler & Shefrin, 1981)

7.3.Social Learning Theory

This theory suggests that individuals learn financial behaviours, through observation, imitation, and modelling. Therefore financial literacy can be affected by social interactions and the behaviours of peers, family, relatives and friends (Bandura, 1977).

7.4.Theory of Planned Behaviour

This theory explains that when a person plans to perform a behaviour, like saving money, certain factors influence his decision; those factors being his attitude toward the behavior, subjective norm, and perceived behavioral control. Financial literacy influences these attitudes and perceptions, and thus, it influences behavior. It is the case that financial literacy helps an individual to have more positive attitudes, be more controlled and empowered, be more eligible to social norms, and ultimately increase the chances of exercising responsibility. (Ajzen, 1991)

8. Data Collection Techniques and Data Analysis

Data used in this study were collected structured questionnaire distributed to the academic staff from University of Duhok. Thus, Quantitative analysis techniques and statistical description were adopted for the study. After an orientation similar about the proposal of financial literacy level among academic staff in public universities in Kurdistan region in late 2023, a structured questionnaire has been sent to the academic staff of University of Duhok through the official email of directorate of quality assurance.

9. Literature Review

Researchers investigate the effectiveness of different learning sources in enhancing financial literacy among young adults. They conducted a survey of nearly 1,500 college undergraduate students enrolled in courses that teach financial principles. The survey included a financial literacy quiz to assess participants' existing knowledge and

collected socio-demographic data in three main areas: (1) family and background, (2) formal learning activities, and (3) experiential learning activities. Surprisingly, the findings indicate that family background has minimal influence on financial literacy. Although certain types of formal learning activities contribute positively to financial literacy, the most significant impact appears to come from experiential learning. This suggests that hands-on experiences related to financial decisions and practices play a crucial role in improving financial literacy among young adults. (Brau et al., 2019). Findings show that women tend to exhibit greater regret aversion than men, while men display stronger self-attribution, illusion of control, and confirmation biases. However, for investors with high financial literacy, the occurrence of these biases is similar across genders. This suggests that financial literacy helps reduce gender-based differences in behavioural biases. (Hsu et al., 2021)

The concept of financial literacy does not have a consensual definition of what it means specifically, nor has its limits settled by the corresponding literature. According to Remund (2010), FL is the degree to which a person comprehends essential financial concepts and has the capacity and confidence to manage personal finances through proper, short-term decision-making and good, long- term financial planning while taking into consideration economic events and changes. Financial literacy is the capacity to make informed judgments and to take effective decisions regarding the use and management of money. (Schagen & Lines, 1996). The financial literacy to be a part of financial health that describes a person's knowledge and skill in managing personal finances. (Reich & Berman, 2015) regard financial literacy to be the acquisition of the essential knowledge and skills to effectively manage finances, use financial services, and navigate the consumer market. Moreover, the authors say it can also comprise financial behaviours including budgeting, bill payment, debt acquisition and payment, management of consumer problems, and comparison shopping. (Aprea et al., 2016)

Kiyosaki (2001) considers financial literacy as the key to becoming financially independent and building wealth, emphasizes the importance of financial literacy and advocates for a better understanding of money management. For people to make wise financial and investment decisions and to achieve financial freedom, the author contends that financial literacy is vital. Financial literacy is defined as the ability to read and understand financial statements, which allows you to identify the strengths and weaknesses of any business, (Kiyosaki, 2001).

The (Zhou et al., 2023) study examines whether more education leads to better financial literacy. By looking at the effects of China’s Compulsory Schooling Law, which made education mandatory for certain groups, the researchers could measure how increased education levels impact people’s financial knowledge. They used data from a survey of urban households and found that more education is linked to better understanding of basic financial concepts. This link appears to be a real cause-and-effect relationship. The study also identifies two skills that help explain this connection: math skills and sociability. In other words, education may improve financial literacy partly because it strengthens math abilities and helps people become more comfortable interacting with others, which can be useful in managing finances.

However, the study found that while education boosts basic financial knowledge, it doesn't make a big difference for more advanced financial skills. Overall, these findings suggest that providing more education could help improve financial literacy in the general population, especially when it comes to foundational financial knowledge.

The literature lacks a consensus on the impact of personal finance courses on individuals' financial literacy. The study of (Paraboni & da Costa, 2021) examines the effect of a personal finance course, consisting of 72 class hours per semester, on the financial literacy of Brazilian undergraduate students. Additionally, it explores the role of cognitive ability in the learning process. A quasi-experimental design was employed, utilizing a difference-in-differences approach to compare the results of two distinct student groups: those who participated in the course and those who did not. The findings reveal that participants in the treatment group experienced a significant increase in financial literacy across the three dimensions assessed: financial knowledge, attitudes, and behaviours. However, students with higher cognitive ability did not demonstrate greater improvements in financial literacy compared to their peers. Furthermore, to assess the practical implications of financial literacy, the study tested whether the personal finance course could reduce a behavioural bias known as the disposition effect. The results suggest that the course served as an effective debiasing strategy for this particular bias. (Paraboni & da Costa, 2021)

Most financial advisors advise maintaining a reserve equivalent to three to six months' worth of expenses in easily accessible assets to handle unforeseen emergencies. Over half of U.S. households lack a savings buffer equivalent to three months of essential expenses. Our research demonstrates that possessing financial literacy is a strong indicator of having a three-month liquid savings cushion, even when accounting for factors such as income, income fluctuations, and parental support. Furthermore, we observe that financial literacy plays a role in predicting liquid savings across various income levels, challenging the notion that emergency fund accumulation is solely tied to income levels. Notably, our findings suggest that even among affluent households with substantial illiquid assets, financial literacy remains a significant predictor of liquid savings. This implies that the phenomenon of financially prosperous families struggling with immediate liquidity issues may be attributed to financial missteps rather than optimal portfolio management. In essence, our study underscores the crucial role of financial knowledge in elucidating a family's readiness to navigate unexpected expenses or income disruptions. (Bhutta et al., 2023)

10 .Data Analysis

55% of the respondents were male, and the remaining where female this indicate that both genders participated well in the survey. In terms of living place statue 62% of the respondent they live in their private place whether house or apartment so they have private ownership on their own living place, in the same manner 20% of the respondent they pay rent per month in order to live in a quiet place in Duhok city, while 80% they live in places normally with their father and grandfather, it's called the big house as shown in figure no. 3.

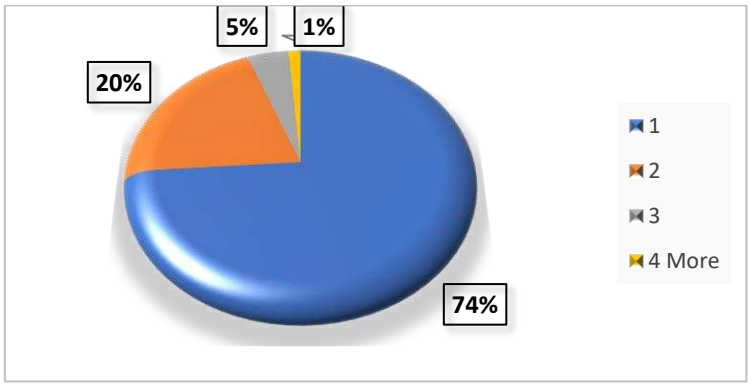


Figure (3). numbers of cars per family

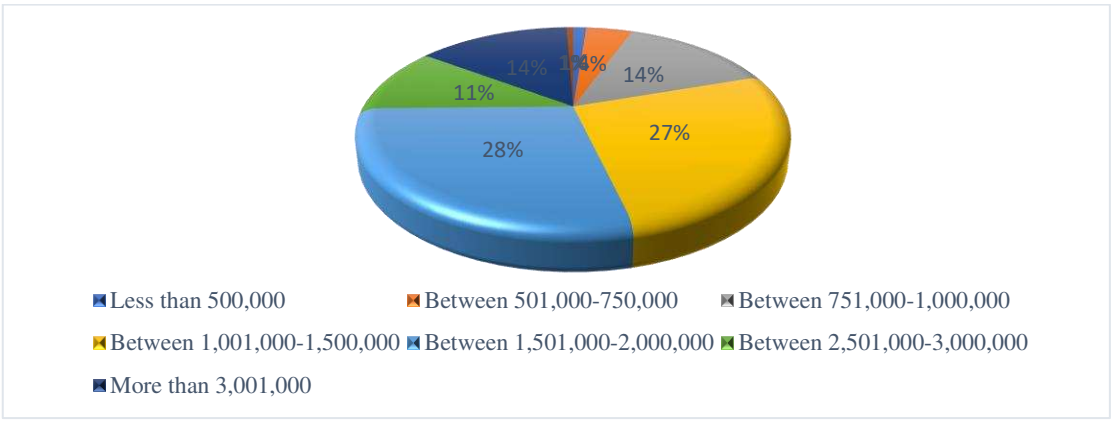


Figure (4). Family Monthly Income

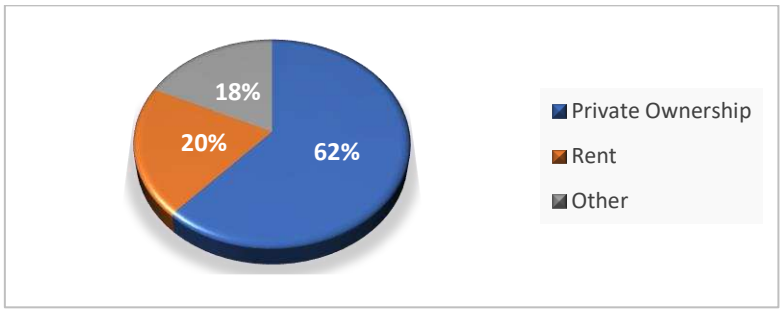


Figure (5). Living Place Status

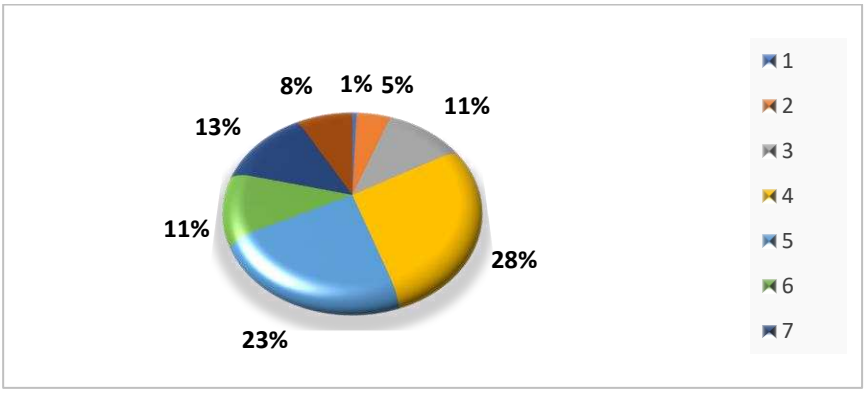


Figure (6). numbers of Family members

Kurdish family are regarded as big families due to fact that the majority of the respondent have two or more child that meaning that each family consist of at least four members as shown in our survey which indicate that around 80% of the family responded of at least four members as in the figure above.

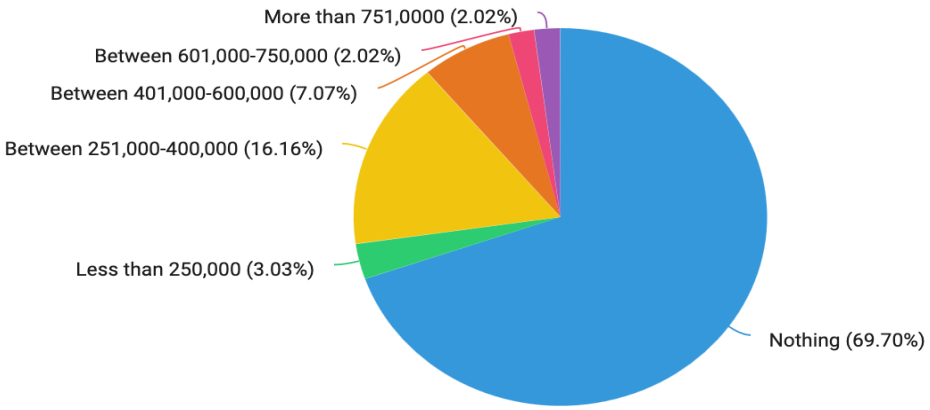


Figure (7). Housing Costs per family

It seems that 69% of the academic and administrative staff at the universe of Duhok Don't have housing issues, so they declared that they don't spend anything on renting a house for the family, which seems good and affect social and economic security for all family members.

Table (1). How much each family spend for car fuel only

Car fuel costs only	%
Less than 50,000	4%
Between 50,000-100,000	18%
Between 101,000-150,000	28%

Between 151,000-200,000	25%
Between 201,000-250,000	12%
Between 251,000-300,000	8%
Between 301,000-400,000	2%
Between 401,000-450,000	1%
More than 451,000	2%

Source: Author's preparation according to the questionnaire's respondents

From a financial perspective, spending 150,000 Iraqi dinars per month solely on car expenses is significant, particularly given that this amount represents at least 30% of monthly income for many academic staff at public universities. This high allocation towards transportation suggests limited disposable income for other essential expenses or savings goals. Ideally, financial planning principles recommend allocating no more than 15-20% of income towards transportation, allowing for greater balance among other financial priorities such as housing, utilities, savings, and discretionary spending.

Spending 30% of income on transportation alone indicates that these employees may struggle to allocate funds for emergencies, retirement savings, or even unexpected costs without stretching their budgets. In the long term, this imbalance can lead to financial strain, as they might need to rely on credit or sacrifice important financial goals. From a financial management viewpoint, finding ways to reduce these transportation costs, such as carpooling, using more cost-effective transportation, or negotiating for transportation allowances, would be prudent steps to enhance their overall financial well-being.

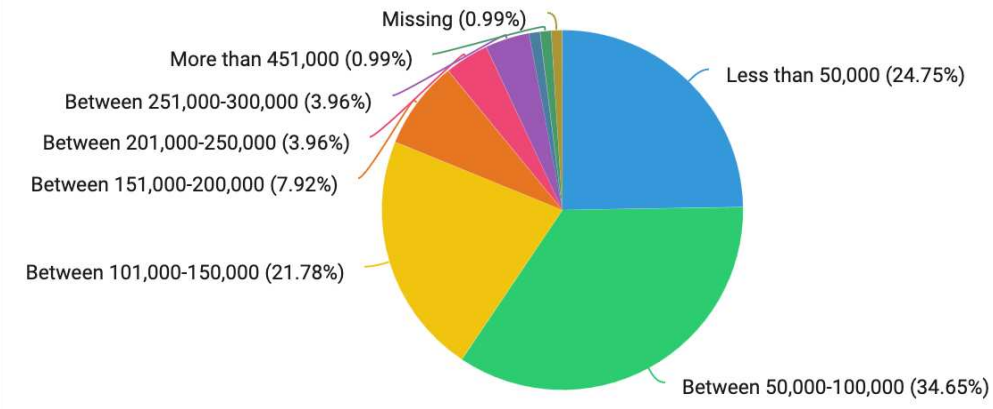


Figure (8). How much each family spend for car maintenance excluding fuel

40% of the households allocate over 100,000 Iraqi dinars monthly to maintain their cars, which constitutes a significant portion of their overall income.

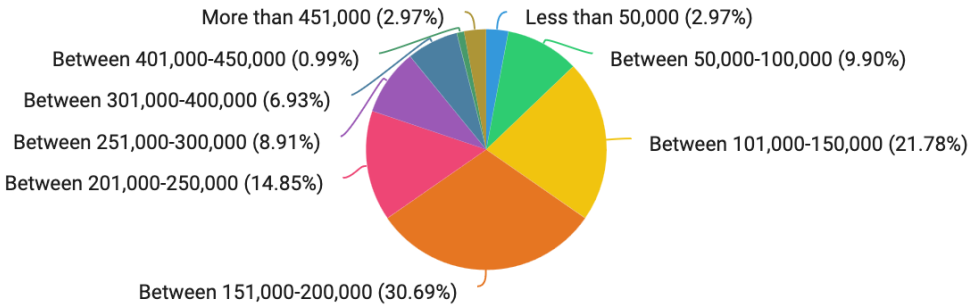


Figure (9). How much each family spend for getting the electricity

The majority of the parts in the survey more than 100,000 Iraqi dinars per month for only getting the electricity public supplied network or private generators participation (which is not enough always to be used for comfortable life specially in the hot summer and the cold winter). In addition, more than 65% of the academic and administrative stuff spend spent monthly more than 150,000 Iraqi dinars which is huge expenses getting out of their family's pocket. These exposes affect directly to the quality of life, economic prosperity, and live advancement. Therefore, failing to control your expenses can lead to several negative consequences that impact both your financial stability and peace of mind. Without managing your spending, you risk accumulating debt, as unmonitored purchases can quickly add up, leading to credit card balances or loans that become difficult to pay off. Overspending can also interfere with your ability to save for essential goals, like emergencies, retirement, or major life events, leaving you vulnerable when unexpected expenses arise. Additionally, poor expense management can cause stress and strain on personal relationships, especially if financial strain becomes a recurring issue. Ultimately, lacking control over your expenses limits your financial freedom, making it harder to achieve long-term goals and creating a cycle of financial insecurity.

Table (3). Monthly expenses for eating and drinking inside and outside the house

Monthly expenses for eating and drinking inside and outside the home	%
Less than 75,000	1%
Between 75,000-100,000	4%
Between 101,000-150,000	5%
Between 151,000-200,000	8%
Between 201,000-250,000	7%
Between 251,000-300,000	7%
Between 301,000-400,0000	8%
Between 401,000-450,000	8%
More than 451,000	49%
Missing	1%

Source: Author's preparation according to the questionnaire's respondents

As most Kurdish families in the 21st century typically comprise at least five members, providing for their nutritional needs involves significant expenses dedicated to purchasing and preparing at least two meals per day, in line with the dietary requirements typical in Middle Eastern households. It is common for 90% of these households to spend more than 150,000 Iraqi dinars on food and beverages consumed both at home and outside, reflecting the larger family size.

Table (4). How much each family spend for Health care

Health care expenses	%
Less than 75,000	18%
Between 75,000-100,000	21%
Between 101,000-150,000	19%
Between 151,000-200,000	13%
Between 201,000-250,000	6%
Between 251,000-300,000	9%
Between 301,000-400,0000	4%
More than 451,000	8%
Missing	1%

Source: Author's preparation according to the questionnaire's respondents

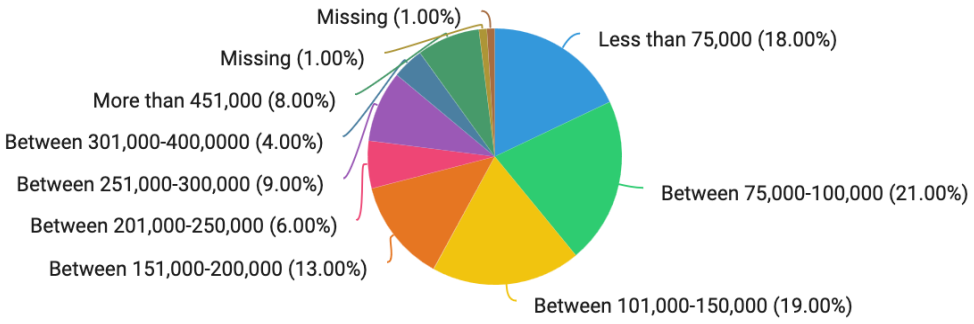


Figure (10). How much each family spend for car maintenance excluding fuel

More than 60% of the academic and administrative staff at university of Duhok Spent 100,000 Iraqi dinars per month for healthcare purposes as disease increased, and body immunity declined due to pollution in the environment, especially that Duhok university campus is near to one of the most polluted industrial area called (Kuwashi) which is far from city center around 25 km, even though that directorate of environment worked with other public entities to control the harmful gazes getting out of the production of small local oil refinery as in the industrial area.

The figure above illustrates that 68% of academic and administrative staff at the public universities specially at university of Duhok cannot save any amount of money

each month due to late acquiring their income (public salary), besides substantial increasing daily expenses for an expert inside of the cities. Therefore, this number give us insight that lifestyle and financial knowledge of the participants definitely affect their decision of saving parts of the income as monthly savings.

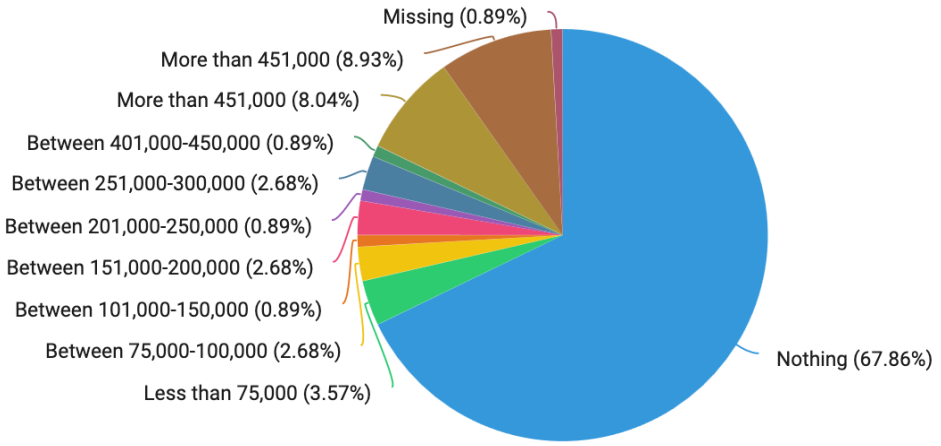


Figure (11). How much each family save monthly

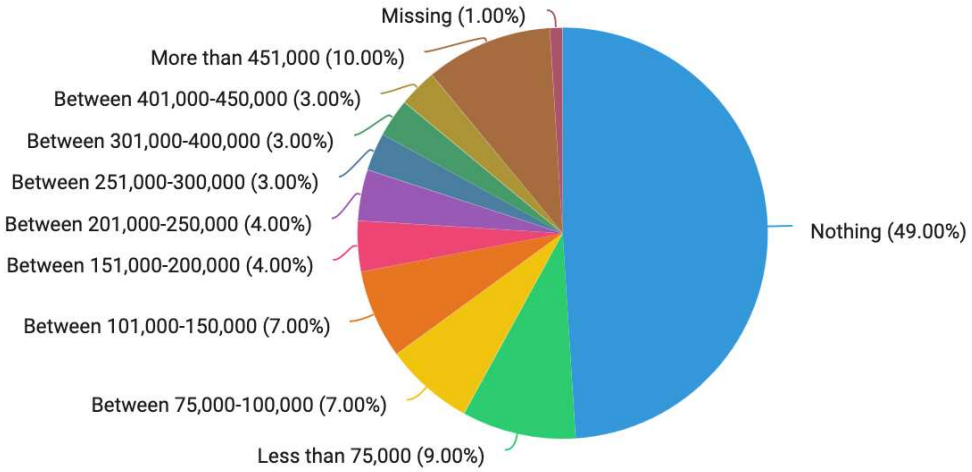


Figure (12). Monthly emergency reserve by each family

Half of the surveyed academic and administrative staff do not set aside funds for emergencies, reinforcing the notion that they lack financial foresight or possess a low level of financial literacy.

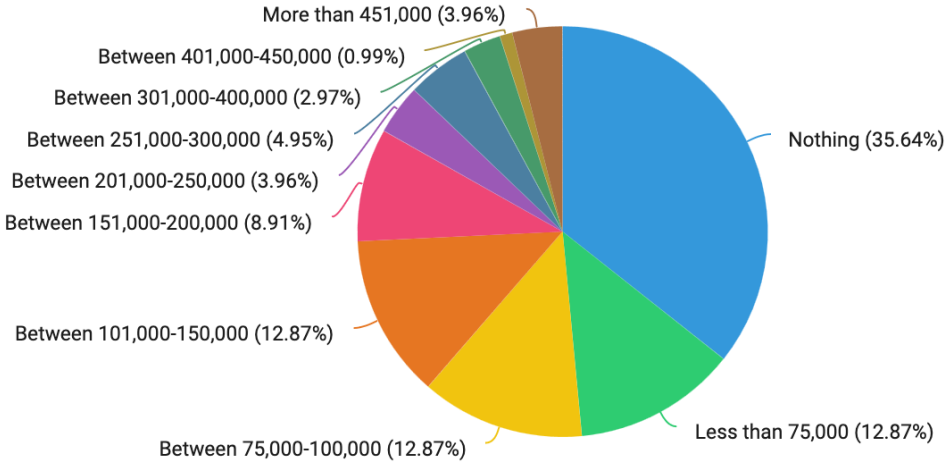


Figure (13). Monthly children's supplies expenses per family

The allocation of funds for children's supplies among surveyed family heads reveals a concerning disparity in financial planning and prioritization. With half of the respondents dedicating less than 75,000 IQD per month for such expenses, and 30% stretching their budgets between 75,000 and 100,000 IQD, it underscores the financial challenges many families face in meeting basic needs for their children. This allocation, though reflective of varying income levels and cost of living, highlights the need for thoughtful budget management and potentially reevaluating spending priorities to ensure adequate provision for essential childhood necessities.

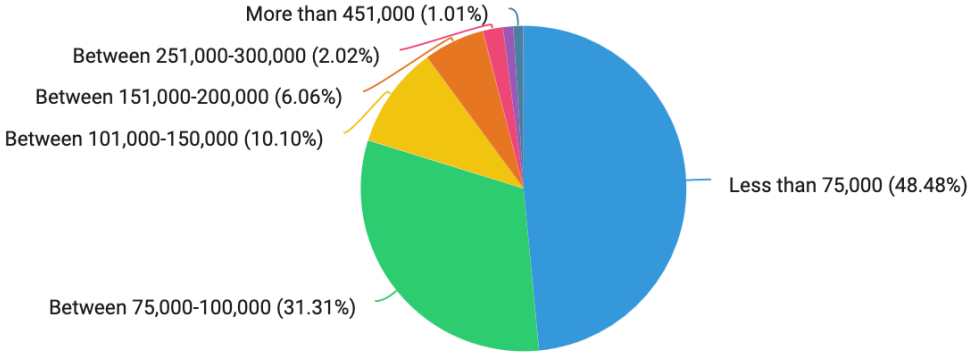


Figure (14). monthly family internet subscription and mobile phone recharge fees

Only 39% of the academic and administrative staff are the university of Duhok declared that they an active bank account that has been used for normal financial transactions, which regard as low percent of the users specially when we talk about one of the highest levels of education inside the society, which is universities. That's why, more effort must be dedicated to ensure that financial inclusion is separate out in order to increase the type and quality of the banking and financial services being

provided at all geographical location whether Metropol, district and subdistrict as equal concentration.

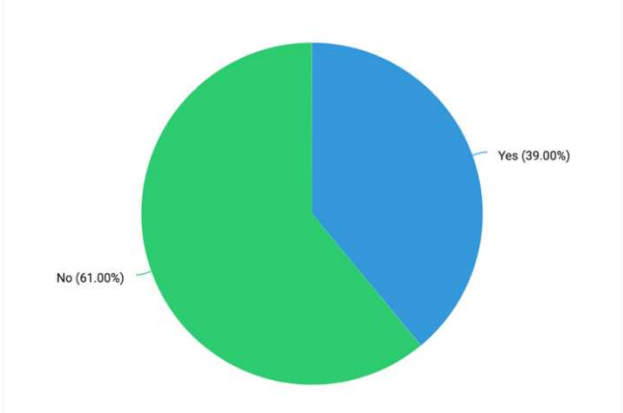


Figure (15). Public or Private banking account preferences

About 63% of correspondent declared that they prefer to open and use government bank account instead of bank account because it's less trusted, besides the financial difficulties and corruption happens in private banking sector in Iraq general which has been evident researches in the last decade. This opinion has been changed positively and substantially after 2021 when the majority of private banks implemented new procedures, guidelines, and technologies to provide more services with better quality and increased their financial inclusion specially simplifying the procedure of opening account, increasing branches in additional cities, increasing its ATMs, online banking services, supporting small and medium enterprises SMEs operation central bank of Iraq and international financial corporation in various programs to provide credits and loans to private sector entities in Iraq in general, in the same time Kurdistan region have been excluded until now.

Table (5). Numbers of Fintech accounts and application

Do you have an account in one or more of these applications?	%
FastPay	27%
FIB First Iraqi Bank	22%
My Korek	15%
Zain Cash	4%
Nass Wallet	2%
Asia Hawala	1%
None	29%

Source: Author's preparation according to the questionnaire's respondents

One of the earlier financial technologies Implemented in Iraq was Asia Hawala Financial services provided by Asia Cell company, as well as Zain cash provided by

Zain telecommunication company, in addition to Fast Pay digital currency transaction services by Nawroz telecommunication company. The focus of each of these implications on a specific geographical area, why it was difficult to spread in all regions and cities in Iraq, even though that these companies are planning and trying to expand their services to reach out the majority of cities in Iraq.

29% of the respondents didn't use annual financial technologies applications in Iraq so far, which seems unlikely because its services have been provided since 2021 in collaboration with many entities via job and trade fairs, a special offer has been promoted to universities especially academic and administrative staff. One of the most using financial technology applications is the services provided by the first Iraqi bank FIB due to its strategic marketing planning to reach out the majority of the citizens in in whole Iraq, that's why 22% of the respondents declared that they are using almost weekly application of FIB because of its good service quality has been evidence in few graduate project by fourth year students in department of business administration at college of administration and economic universe of Duhok on the service quality provided by financial technology applications particularly FIB.

Only 8% uses their fintech accounts for seven times and more each month for different needs and transactions, while 56% of them uses only once per month which indicates that they could be using for mobile recharge only or pucrhase internet packages. In addition, 18% uses their mobile fintech applications twice a month, while 8% uses three times, 5% uses four times per month.

Based on the usage statistics of FinTech applications among the academic and administrative staff at the University of Duhok, where 74% use these apps only once a month for basic transactions like purchasing internet packages or recharging mobile phones, there is a clear opportunity to enhance financial literacy and expand the utility of these tools. To encourage greater engagement and maximize the benefits of FinTech applications.

Only 7% of the respondents are using their financial technologies applications to purchase real products specially consuming products, while 28% are using for Internet recharge packages which is easy for them to pay in a few seconds, besides 27% of them are using it to purchase mobile recharge cards which seems is happening once a month by each of the respondents. In addition to that 80% of them are using these applications to transfer cash to relatives, business associates, partners, private sector entities as a financial transaction.

Table (6). holding other currencies beside Iraqi Dinars

Do you hold a currency other than the Iraqi dinar?	%
I do not hold any foreign currency	58%
I own US dollars on an ongoing basis	33%
I own Turkish Lira currency on an ongoing basis	1%

I constantly own Euros or British Pounds	1%
Others	6%

Source: Author's preparation according to the questionnaire's respondents

According to the responds of the questionnaire, 58% of the respondents declared that they Don't hold any foreign currency for their financial activities, 33% shows that they hold US dollars beside Iraqi dinars for certain activity which requires foreign currency specially use dollar. Only 28% of the responds have more than one steady and stable source of income, thus it is very difficult to balance between the income and expenses as they are not sure exactly when they can receive their income every month. Half of the participants don't have any information about the financial markets in Iraq in general and particularly Iraq stock exchange, as they don't know what has been trading on this financial market, only 18% responded correctly that come on stock and government bond are being traded publicly in Iraq stock exchange. In addition to that 11% seem to have interest on cryptocurrencies that's why they link it to financial market in Iraq. Regarding the question Does buying a single share of a company usually provide a safer return than a stock investment fund? 28% of the responded agreed on that, while 38% did not, and 38% seems do not have any information about the topic.Majority of about response seem to know that there is difference between net profit and net cash flow, which is good indicator for their financial understanding as a basic financial literacy. While they couldn't relate the work of accountants and finance as only 34% of them understand that the financial manager work when the accountants finish their work, and about half of them don't know the relation between the both. In addition, 39% of the participants don't have any information about investment strategies, and about half of participants declared that the investment diversification is better than investing in one basket (one sector or one financial security).

Only 8% of respondent knows that the main financial statement that is needed for every company in Iraq, and 92% of them did not answer correctly this question, as 48% of them acknowledge that there is only one financial statement, and 22% of them seems they have information that there is two financial statements, while 14% of them seems to have information that there is more than four financial statements, as 9% of them answered that there could be only three financial statements needed for every company in Iraq. Therefore, their basic knowledge about the ABCs of financial management and financial analysis is not adequate and enough.

11. Conclusions and Recommendations

11.1. Conclusions

1. This study highlights a concerning gap in financial literacy among respondents in the Kurdistan region, despite their educational backgrounds. The findings reveal a lack of understanding concerning basic financial concepts, investment strategies, and financial market awareness.

2. The results represent that the majority of the respondents lack an adequate level of financial literacy, even though that they are among the highest in educational and cultural postion in Duhok City. Many participants show limited basic knowledge about managing personal and family finances, highlighting the need for a comprehensive strategy to enhance financial literacy. This could include activities like practical training courses, targeted seminars, workshops, and personalized one-on-one coaching sessions for all academic staff despite of their pure scientific specification.

11.2.Recommendations

1. Increase the awareness of the academy staff through intensive workshop seminars and professional courses one the fundamental of financial management especially financial literacy in both orientation personal and family finance.
2. Creating a community support networks where families can exchange tips and resources on cost-effective shopping, access discounts on children's supplies, or receive donated items from those with surplus.
3. Offer practical workshops or seminars on family and personal financial management such as budgeting techniques that prioritize savings for emergencies.
4. Launch a resource centre or online platform where staff can access additional information, tips, and tools related to financial wellness.
5. Create a targeted campaigns to educate staff about the benefits of having a bank account, such as safety, convenience, and access to financial services. Highlight the importance of financial literacy and empower staff with knowledge on basic banking procedures and financial management.
6. Introduce incentives such as discounts on university services or special offers from FinTech partners for regular users of these applications. This can motivate staff to integrate FinTech into their daily financial routines.
7. The study recommends implementing targeted educational programs, community support initiatives, and the integration of FinTech solutions. These measures aim to enhance financial knowledge and empower individuals to manage their finances more effectively, ultimately fostering better financial stability and well-being in the community.

By implementing these recommendations, the University of Duhok can effectively increase the adoption and utilization of FinTech applications among its academic and administrative staff, empowering them with greater financial literacy and efficiency in managing their personal finances.

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