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THE IMPACT OF USING ROBO-ADVISORS ON FINANCIAL INSTITUTIONS PERFORMANCE

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ABSTRACT

Business advancements are being made with emerging technology. The innovation of Robo-Advisors increases the ease of a company's financial decision-making process. Moreover, the wealth management industry in Saudi Arabia is undergoing a rapid transformation, with the traditional methods of offering financial advice being disrupted by the latest and innovative types of technology. Thus, this work has analyzed the impact of using Robo-Advisors on financial institution performance in Saudi Arabia. This work was carried out based on quantitative method. Data from secondary sources were analyzed. The key findings have shown that Kingdom of Saudi Arabia has been engaged to FinTech Robo-Advisors with assets under management of US\$346m in 2019. Furthermore, the number of users is expected increase up to 152.8 thousand by 2023. The automation technology supplied by Robo-Advisors helps reduce costs and improves control and compliance of the company. In addition to providing the best service to existing customers.

INTRODUCTION

With the advancement of technology is increasing all over the world, new techniques and methods are being applied in every business sector and every industry [1]. New IT solutions are being developed to meet the needs of the market. The invention of Robo-Advisors is one such invention in the financial sector. Robo-Advisors are a class of financial advisors who tend to provide financial advice or who are also responsible for managing investments that take place online with less to moderate human interference. These Robo-Advisors tend to provide digital financial advice based on mathematical rules or algorithms [2].

Robo-Advisors do not require human interference to work. The algorithms behind the development of Robo Advisors are implemented by the software, which does not require a human advisor to provide financial advice [3]. The software behind Robo Advisors tends to use its algorithms to align, manage and optimise user assets independently. In addition, Robo Advisors are digital platforms that comprise interactive and intelligent user support elements that make efficient use of information technology to guide or advise users through an automated investment advisory process [3].

Robo-Advisors tend to vary from current investing sites or online brokerages in terms of two distinct conceptual levels: client evaluation and client fund management [4]. Furthermore, the definition of Robo-Advisory is most widely used in the field of financial investment advice. Nowadays, the Robo-Advisory concept is being used in larger companies and is replacing the classic retail consumer advisory process [4]. Moreover, in terms of consumer evaluation, Robo-Advisors prefer to expand existing advisory solutions, since their emphasis is on transforming the conventional, human-to-computer process. Whereas in client portfolio management, robo-advisors experts vary from existing methods, whereby it focuses on the customer portfolio management [5]. Customer portfolio management is defined as portfolio management that includes more than one or more financial product in relation to customer-by-client requirements.

According to Abraham et al. [6], an automatic consumer on board is one of the essential features of the Robo-Advisor in FinTech field. Robo-Advisors aim to collect knowledge and details such as demographic information, financial goals and asset management expertise through a comprehensive questionnaire. Following this, an appropriate analysis is carried out, and then these robo-advisors produce custom portfolios. Furthermore, according to Lam [7], FinTech firms are those who aim to incorporate the technology offerings of financial service entities in order to improve their application and sell to customers. Thus, to achieve these requirements, Robo-Advisors are utilized. Moreover, according to Salo and Haapio [8], Robo-Advisors will play a major role in financial institutions. One of the advantages that Robo-Advisor may have on financial institutions is the risk profiling mechanism. Robo-Advisor simplifies risk profiling and calculates the ability to take risks.

According to research by Phoon and Koh [9], Robo- Advisors play a significant role in handling the company's resources. There are several Robo-Advisors who are building an increasing client base. Not only are these Robo-Advisors still growing, but they are also being paired with conventional financial firms that provide wealth management services [10]. In addition, Robo-Advisors can help create ideas for the bank's wealth management consultants that will potentially improve the personalised experience of consumers [11]. Likewise, the automation technology offered by Robo-Advisors helps to minimise costs and increase monitoring and enforcement. It allows companies the opportunity to scale by allowing them to best represent current consumers and target new groups of clients that have historically been neglected by wealth management institutions due to the lack of funds [12].

Robo-Advisors tend to eliminate the need to hold hands and thus enable financial advisers to assist those who prefer more attention. The Robo-Advising model simply gives banks a great opportunity to scale while meeting consumer expectations for better digital experience. Thus, this work has investigated the impact of using Robo-Advisors on financial institution performance in Saudi Arabia.

METHODOLOGY

This study was carried out based on quantitative method. This study has utilized secondary data gathered from a statistical website, which involved the Saudi Arabia's banks and other related agency that have utilized Robo-Advisors.

RESULT AND DISCUSSION

Today, in the Kingdom of Saudi Arabia, it is no longer enough to be a digital consumer. In order to boost a myriad of economic and social gains at the digital border, the Bank and Financial Services Institutes (BFSI) must also develop the required technologies and associated human capital. It is a crucial time for the Kingdom of Saudi Arabia. Sustained organic growth is not going to be enough to transform the region into a leading digital economy. Activating the full digitization potential for the financial sector will require a thorough, tangible, collaborative action and it must begin immediately.

Saudi Arabia has taken measures to diversify the economy. The emphasis on emerging financial services is part of its Vision 2030 wider diversification programme. Finance is one of the eight big sectors that have led the potential development of the Saudi economy. The Saudi Arabian Monetary Authority (SAMA) unveiled the FintechSaudi project in April 2018, in accordance with Saudi Arabia's Vision 2030 to encourage entrepreneurship and develop financial technology (FinTech) infrastructure [13]. The goal of the project is to accomplish a range of objectives, the boldest of which are: to introduce the first edition of the Kingdom 's FinTech system; to educate and encourage individuals to improve their expertise and to have successful skills in the field of FinTech. In addition, funding for local financial institutions, foreign FinTech firms and collaborators to develop the true essence of FinTech operations in the Kingdom of Saudi Arabia.

Fintechs In Saudi Arabia

Banks and FinTechs in Saudi Arabia are working together to develop technologies that improve customer service. Saudi Arabia is heading into becoming a blockchain-powered country. In October 2017, the Research Division of the Islamic Development Bank, announced that it had struck a deal with the marketing firm Ateon and Belgium-based SettleMint to carry out a strategic pilot project with a goal to utilise blockchain technology to create sharia-compliant services, with the intention of promoting financial inclusion initiatives along its participating countries.

In May 2017, Al Rajhi Bank completed a cross exchange within a few moments using Blockchain [14]. In February 2018, Saudi Arabia's national

bank signed an agreement with the U.S.-based wave to allow banks in Saudi Arabia to use Ripple 's product for flash settlement payments sent to and from the nation.

As part of their Vision 2030, which was launched in April 2016, the Government of Saudi Arabia has launched a programme for the development of the financial sector [15]. The programme seeks to achieve a number of objectives: financial variety, financial comprehensiveness, financial security, digital change, and money-related depth.

Fintech Regulators

When it comes to regulators, the main financial regulators in the country are the Saudi Arabian Monetary Authority (SAMA) and the Capital Market Authority (CMA) [16]. In May 2017, SAMA gave a Cyber Security Framework, which sets out standards and goals for the inception, usage, support, checking and improvement of network protection controls in the Member Organization [17]. The aim of the CMA is to promote financial technology in the investment market by offering a streamlined regulatory structure that is proactive in nature in financial technology in the Kingdom of Saudi Arabia.

FinTech can locate and test its revolutionary FinTech capital market-related products, services and business models under defined criteria and timeframes. In January 2018, the CMA gave the Financial Technology Experimental Permit Instructions to give an administrative system that is conducive for the development of monetary innovation (FinTech) in capital market inside Kingdom of Saudi Arabia [18]. Organizations apply for the grant so as to partake in the FinTech lab where they can convey and test their creative FinTech items, administrations, and plans of action identified with capital market inside determined boundaries and time spans.

Fintech Investors

In 2018, Gulf Capital, an advantage the executive's firm, gained a US\$266.6m stake in electronic installment arrangements supplier Saudi Geidea [18].

Saudi Arabia Public Investment Fund (PIF) is a financial specialist in the SoftBank Vision Fund. In May 2017, SoftBank Vision Fund reported that it had raised over \$93 billion to put resources into innovation.

Saudi FinTech is required to dispatch various workshops, instructive and mindfulness exercises focusing on college understudies, speculators, organizations and banks to present the activity and its commitment to a subjective move on the arrangement of budgetary innovation administrations.

The Saudi British Bank (SABB) and King Abdullah University of Science and Technology (KAUST) set up the KAUST-SABB University Entrepreneur Accelerator TAQADAM in Saudi Universities. The reason for the program is to help the more youthful phase of the college understudies and workforce

business visionaries in forming their ideas into high-potential beginning stages [18].

Saudi Robo Advisors Performance

The Robo-Advisor's fragment contains private resource the executives' suppliers who offer robotized online portfolios in which private speculators can pick venture volumes relying upon their degree and private craving for hazard.

Suppliers, for example, Wealthfront, Schwab Intelligent Portfolios and Betterment permit private and additionally institutional speculators to put away their cash (beginning at extremely limited quantities) in prior portfolios, which are naturally overseen by exclusively designed calculations.

The benefit of these administrations lies in the latent part of the financial specialist, who may not need or can't bear the cost of continuous individual observing of their portfolio improvement. Such computerized speculation benefits additionally take into consideration appealing gets back with low beginning capital and without explicit venture skill, which is as opposed to exemplary ventures offered by customary banks.

In the Robo-Advisors section, money related figures show the benefits under administration of mechanized online portfolios. Online dealers without computerized and proposal-based warning capacities are excluded from this portion.

Saudi Arabia oversees resources in the robo-guides portion add up to US \$346m (2019), and these advantages under administration are relied upon to show a yearly development rate (CAGR 2019-2023) of 46.9% bringing about the complete number of US \$1,614m by 2023. Notwithstanding the clients of robo-guides are required to ascend from 37.6 up to 152.8 (in thousands).

In the dreary speculation climate of the most recent decade with failing to meet expectations ETFs and falling product costs, Robo-Advisory immediately increased public intrigue. Huge venture reserves are actualizing the Robo-Advisory innovation as the productivity of robotized portfolio the executives guarantees exceptional yield rates contrasted with antiquated other options. One should likewise anticipate solidification between autonomous parts in the business, as productivity is firmly identified with versatility and high volumes under administration. In spite of the fact that Robo-Advisory has substantiated itself over late years and has been embraced by numerous banks as an aspect of their administrations, they yet should exhibit their viability in the following downturn.

Figure 1 shows the forecasted Assets under Management (AuM) development of the selected market (market segment, region) in for each year (stock), and the year-over-year changes in assets under management. Based on Figure 1, assets under Management in the Robo-Advisor's segment amounts to US\$346m in 2019.

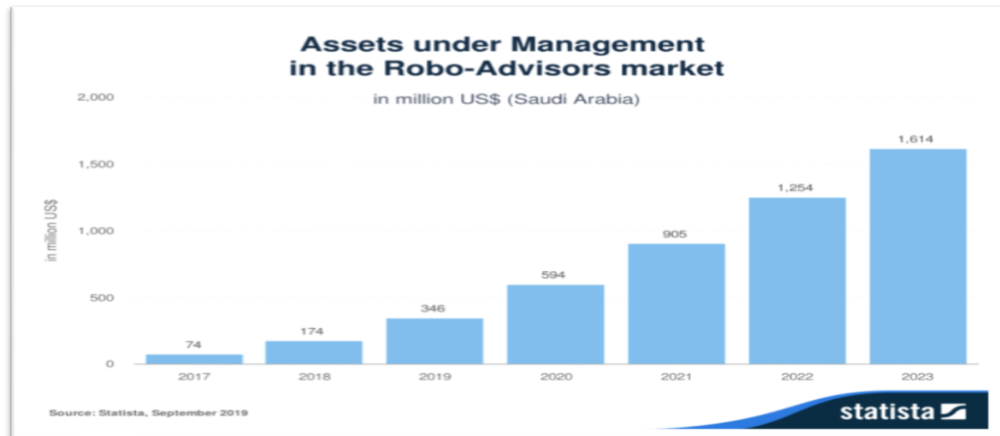


Figure 1. Assets Under Management in Saudi Robo-Advisors.

Figure 2 shows the “Users”, which is the number of active paying customers (or accounts) of the selected market (market segment, region) in millions for each year. Based on Figure 2, in the Robo-Advisor’s segment, the number of users is expected to amount to 152.8 thousand by 2023.

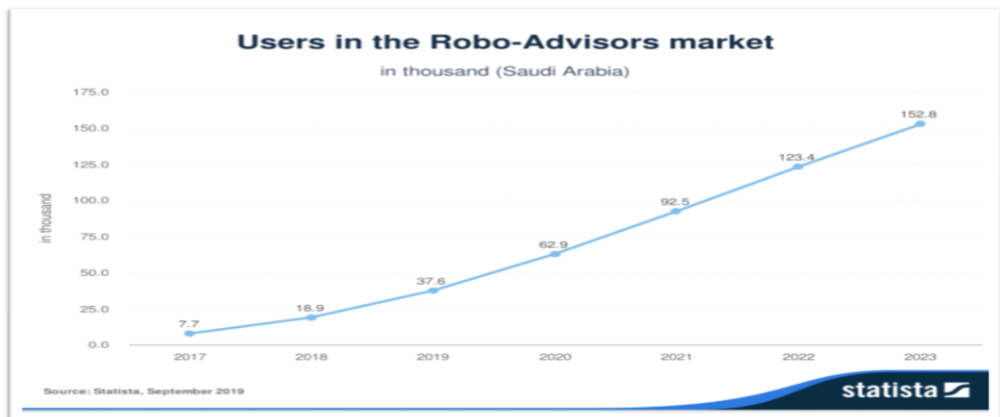


Figure 2. Number of Users of Robo-Advisors in Saudi Arabia

Figure 3 shows the “Penetration Rate”. The “Penetration Rate” box shows the share of active paying customers (or accounts) from the total population of the selected market (market segment, region) for each year. User penetration in the Robo-Advisor’s segment is at 0.1% in 2019.

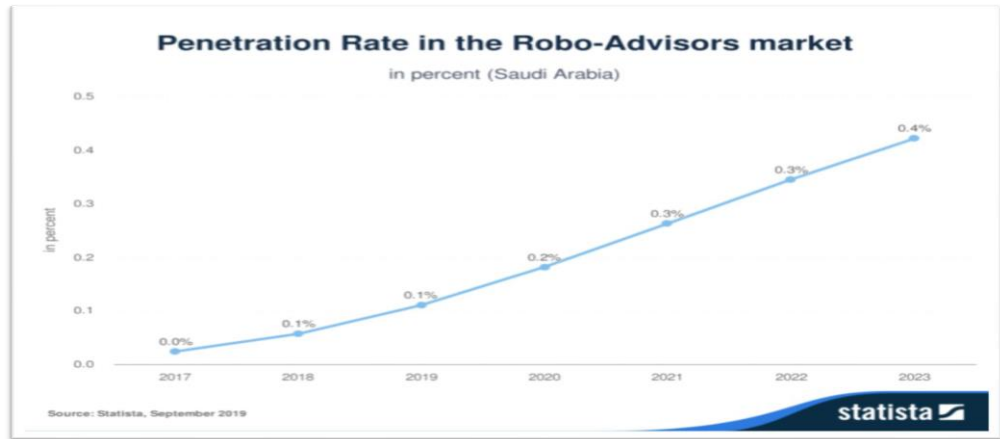


Figure 3. Penetration Rate of The Users In Robo-Advisors.

The following Figure 4 shows the average annual stock of assets under management per user (or potential user) for each year. The average assets under management per user in the Robo-Advisor’s segment amounts to US\$9,211 in 2019.

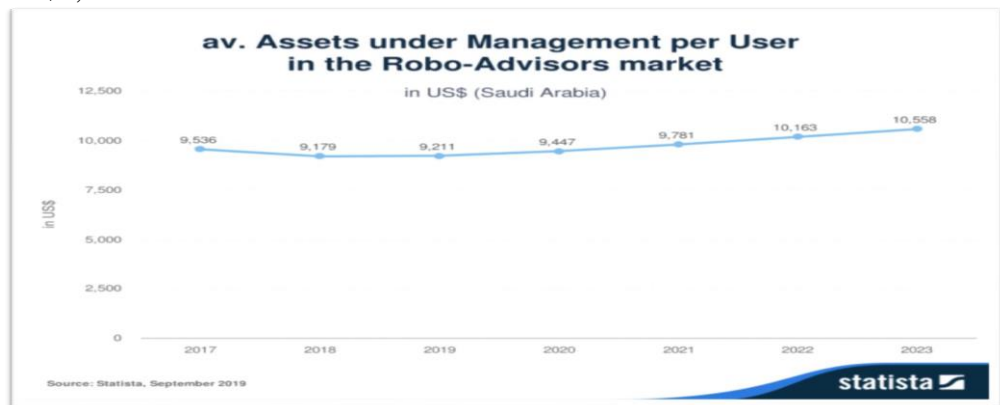


Figure 4. Average Assets Under Management Per User in Saudi Arabia

Based on Figure 5, it is observed that with a total transaction value of US\$749,703m in 2019, the highest value worldwide is reached in the United States.

| Top 5 | |
|----------------|--------------|
| United States | US\$749,703m |
| China | US\$179,442m |
| United Kingdom | US\$14,803m |
| Germany | US\$8,460m |
| Canada | US\$5,448m |
| Saudi Arabia | US\$346m |

Figure 5. Average Assets Under Management Per User in Saudi Arabia**CONCLUSION**

This paper established a relationship between technology and financial institutions and analysed the role of Robo-Advisors to Saudi Arabia 's FinTech organizations. According to that analysis made, the Kingdom of Saudi Arabia has been engaged to FinTech Robo-Advisors with assets under management of US\$346m in 2019. Also, the number of users is expected increase up to 152.8 thousand by 2023. Today, Saudi Arabia is one of the top five countries who have utilize robo-advisors technology in their financial institution's services. Thus, the future of Robo-Advisors in Saudi Arabia is very promising, as the concept of Robo-Advisor will be viewed as the instrument that will be used by almost everyone from the financial advisors in the wealth management organizations to the average at home retail investors.

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