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The impact of financial digitization on the sustainability performance of financial listed companies تأثير التحول الرقمي المالي على أداء الاستدامة للشركات المالية المدرجة

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Abstract

This research aims to study the influence of applying financial digitalization on the sustainability of Asian listed financial companies. This study selected a sample of Asian financial companies for 117 listed companies from 2019 to 2022. The study utilized secondary data from the annual reports and databases. The study reached a conclusion that there is a important influence between financial digitalization and sustainability for financial companies. Digital sustainability is a concept that revolves around setting sustainability goals and achieving them using digitalization as a means. Companies usually have minimal knowledge about their assets or products after they are produced and sold using financial digitalization. However, the results shows there are the positive and important relation between the financial digitalization on the sustainability. The companies can start collecting information on the demand, and usage of items to gain economic profits using digital technologies. Digital finance plays a role in reducing inequality, providing low-income companies and families with new implements to increase their income, improve financial flexibility and access new social opportunities and economic. Digital financial services increase productivity and company revenue by linking the company to “economic opportunities”.

Keywords: financial digitization, sustainability, Asian financial listed companies

المستخلص

يهدف هذا البحث إلى دراسة تأثير تطبيق الرقمنة المالية على استدامة الشركات المالية الآسيوية المدرجة. وقد اختارت هذه الدراسة عينة من الشركات المالية الآسيوية شملت 117 شركة مدرجة خلال الفترة من 2019 إلى 2022. واستخدمت الدراسة بيانات ثانوية من التقارير السنوية وقواعد البيانات. وخلصت الدراسة إلى وجود تأثير مهم بين الرقمنة المالية والاستدامة بالنسبة للشركات المالية. والاستدامة الرقمية مفهوم يتمحور حول تحديد أهداف الاستدامة وتحقيقها باستخدام الرقمنة كوسيلة. وعادةً ما تكون لدى الشركات معرفة محدودة بأصولها أو منتجاتها بعد إنتاجها وبيعها باستخدام الرقمنة المالية. ومع ذلك، تُظهر النتائج وجود علاقة إيجابية وهامة بين الرقمنة المالية والاستدامة. ويمكن للشركات البدء بجمع المعلومات حول الطلب على السلع واستخدامها لتحقيق أرباح اقتصادية باستخدام التقنيات الرقمية. ويلعب التمويل الرقمي دورًا في الحد من عدم المساواة، حيث يوفر للشركات والأسر ذات الدخل المحدود أدوات جديدة لزيادة دخلها، وتحسين مرونتها المالية، والوصول إلى فرص اجتماعية واقتصادية جديدة. كما تزيد الخدمات المالية الرقمية من إنتاجية الشركة وإيراداتها من خلال ربطها بالفرص الاقتصادية. الكلمات المفتاحية: التحول المالي، الاستدامة، الشركات المالية المدرجة في الأسواق الآسيوية

1. Introduction

Digital change offers various benefits for both the service provider (or the private sector) and "the service recipient, as it saves a lot of effort and money, and has great benefits in terms of improving work and operational efficiency, and helps to improve the quality and simplify the procedures for obtaining services provided to beneficiaries (Kesuh, 2020)". "Digital transformation offers greater opportunities for the government and the private sector to grow significantly and reach citizens who want to obtain services, through innovative and simple solutions, far from the routine". "Digital transformation is no longer a luxury that can be done without at present, especially for institutions and organizations that deal directly with the public, which seek to develop and improve their services and facilitate their access to citizens, and the concept of digital transformation goes beyond the use of technological applications to become an approach and a way of working that brings together institutions to make the delivery of services easier and faster" (Federica et al., 2020).

Digital transformation increases efficiency through the use of technology, reduces waste of resources and energy, and accelerates production and service processes. Transparency and improved governance also provide tools for real-time performance tracking and oversight, enabling accurate data-based decisions. It also contributes to improving the customer and citizen experience through digital services that facilitate access and improve service quality. The challenges associated with digital transformation include high costs and a digital infrastructure that requires significant investments, especially in developing countries. There is also a significant disparity in access to technology across regions and social classes.

Financial inclusion has become a focus of interest for many financial regulatory bodies in most countries of the world, as well as international development agencies, as financial inclusion has been identified as a key factor in achieving seven of the seventeen sustainable development goals (Ngulingwa, 2019). The interest of policy makers, international institutions, and private sector institutions in the concept of financial inclusion has increased, the technological development for all segments of society, as financial innovations, electronic money and payments, and mobile financial services have emerged. The percentage of adults who have bank accounts worldwide has reached 69%, and the number of borrowers from commercial banks (per 100,000 adults) has reached about 164,000 borrowers, according to World Bank data for 2018. The number of ATMs (per 100,000 adults) was estimated at about 49,000 machines, according to World Bank data for 2019, which led to an improvement in the level of financial inclusion globally and in turn enhanced the desired economic growth. Financial inclusion has become a focus of interest for many financial regulatory bodies in most countries of the world, as well as international development agencies, "as financial inclusion has been recognized as a key factor in achieving seven of the seventeen sustainable development goals" (Okaro, 2016 & Lancee, 2017).

The interest of policymakers, international institutions, and private sector institutions in the concept of financial inclusion has increased, and "many countries have begun to implement policies that enhance and expand the scope of financial inclusion in a way that stimulates economic growth and achieves financial stability, as well as reduces poverty rates and increases women's empowerment, by enhancing and facilitating access to financial services supported" by technological development for all segments of society, as financial innovations, electronic money and payments, and mobile financial services have emerged. Asian countries have taken concrete steps towards financial inclusion, particularly in improving the diffusion, access and wider use of financial services, as this outcome has been driven by the fundamental inclusion of mobile money services as a platform for the delivery of financial services and, through financial innovation tools, geographical barriers have been overcome, particularly in rural areas with low population density, where the costs of obtaining financial services have significantly decreased. Financial technology innovation also alleviated the restrictions associated with access to financial services. The significance of financial inclusion is evident as one of the core axes in the 2063 sustainable development agenda, as it appeared clearly in many of its goals. Therefore, this study assume the financial digitalization is a positive and significant with sustainability performance of listed financial companies.

1-2. Literature review

Financial digitization means applying digital transformation technologies and moving the services provided by sectors to an innovative business model based on digital technologies. Digital transformation provides various benefits to parties, the service provider, the private sector, and the service recipient, as it saves a lot of effort and money significantly, and has great advantages in improving work and operational efficiency, and helps improve quality and simplify procedures for obtaining services provided to beneficiaries. Financial digitization refers to the integration of modern digital technologies into the delivery of financial services, such as digital banks, e-wallets, e-payments, digital currencies, artificial intelligence in financial analysis, and other technologies. This process aims to enhance efficiency, reduce costs, expand access to financial services, and improve user experience. Financial digitization has become a critical factor in achieving financial inclusion, especially in developing countries, helping to deliver financial services to groups previously excluded from the traditional banking system. It has also contributed to accelerating remittance transactions and providing safer and more flexible payment solutions.

Sustainability discusses to the ability of a process to continue available and effective over time without depleting resources. It addresses the goals of economic, environmental, and social sustainability, with practical examples to illustrate. It also discusses the origins of the concept of sustainability and its applications in the modern world, with a focus on economic, environmental, and social sustainability (Sumin et al., 2023 &Lo & Kwan, 2017). It refers to the principles of sustainability and their importance in business. As various businesses continue to operate, "the desire to maintain or support a process on an ongoing basis over time has become necessary to prevent the depletion of natural or material resources"; this in turn has led to the emergence of the concept of "sustainability (Ion et al., 2022).

The Awad et al., (2018) study aimed to explain the concept of "financial .inclusion" and study the relationship between financial inclusion and economic development on the one hand, and financial inclusion and financial stability on the other hand. The paper also studies the behavior of financial inclusion in the Middle East and North Africa region to clarify the main challenges and opportunities facing the countries of the region. It also focused on Egypt as one of the largest countries in the Middle East and North Africa region as a case study to measure the level of individual access and awareness of financial services. The study relied on the descriptive research approach through a survey, where the random sample used included 140 respondents and the survey was distributed mainly in the Cairo area. The study concluded that most of the Egyptian society may not be fully aware of financial inclusion.

The Ngulingwa et al., (2019) study this study examines the impact of financial inclusion on economic growth in Sub-Saharan African countries, applying it to 25 countries in the region during the period (2009-2014) using the ordinary least squares method. The study relied on two models of autoregressive distributed gaps. "The first model is to linked studying the relationship among economic growth signified by the per capita share of the gross domestic product, and financial inclusion represented by the general index of financial inclusion". The second model measures the relationship between economic growth represented by the per capita share of the gross domestic product, and financial inclusion represented by its three dimensions (financial diffusion, financial access, and financial use). The second model aims to reach the dimension with the strongest impact on the economy. The results of the study reveal that sub-Saharan African countries can increase economic growth by enhancing financial inclusion and taking advantage of financial technology. The results also indicate that there is a need to expand the dimensions of use and access to financial services by creating regulatory environments conducive to financial intermediation, based on reducing operating costs, especially those related to taxes and fees, reducing the risk of non-payment, and reducing the size of the informal. Economy.

The kesuh Thaddeus et al., (2020) this study investigated the positive impact of financial inclusion on economic growth in a sample of sub-Saharan African countries. The study applied the error correction vector model and Granger causality test to determine the direction of the relationship, using data for 22 African countries for the period (2011-2017), where per capita GDP represented the dependent variable, while the independent variables for financial inclusion represented: the number of ATMs, the number of commercial bank branches, outstanding loans, mobile phone agent outlets, and mobile money transactions. The results of the study indicate the existence of a long-term causal relationship between financial inclusion and economic growth in the study countries, and that the direction of causality is unilateral from economic growth to financial inclusion. The study recommended the need to increase customer awareness of the importance of financial inclusion and training in electronic banking services, and expand literacy programs for financial inclusion for all citizens, in addition to working to facilitate access to financial services easily and smoothly

The important of sources is therefore evidence from a financial companies, which displays a few about financial digitalization on the sustainability of listed financial companies. Therefore, this research explain this contribution by test this connection by proposed:

H1. The financial digitalization is a positive and important with sustainability performance of listed financial companies.

3. Research methods

This study goals to study the influence of applying financial digitalization on the sustainability of Asian listed financial companies. This research selected a sample of Asian financial companies for

117 listed companies from 2019 to 2022. The study used secondary data from the annual reports and databases. The study reached a conclusion that there is significant influence between financial digitalization and sustainability for financial companies.

Study methodology and procedures this study relied on the empirical analysis. It dealt with the independent variable, which is financial digitalization, and the second variable, sustainability performance. The study population consists 117 listed financial companies from 2019 to 2022. This study used the OLS regression to examination the model. The variables measurements for example of all the financial digitalization measured by measuring digital transformation is an evaluation process based on a specific methodology that targets entities to diagnose their current situation and monitor the development of their digital transformation journey according to best practices and standards, which contributes to achieving the goals of the vision. The sustainability measured by Quality of of SR i.e. a weighted measure of 0, 1, 2, and 3". The board size measured by "Total number of directors at the listed financial companies date".The firm size measured by the natural logarithm of the total assets at the date of the private placements firms. The firm age measure by the number of years since the firm was first incorporated

This study shows the model which is with the connection among two basic variables in order to display the effect of the first variable is the financial digitalization and "the dependent variable sustainability performance in the listed financial companies. The model clarified the regression of the relation.

$$SP =_{it} \beta 0 + \beta 1\ FD + \ \beta 2 BSIZEit + \beta 3 FSIZEit + \beta 5\ FAGE_{it} + \varepsilon..(3.1)$$

4. Results

4.1 Descriptive statistics test

The descriptive of statistics of this study displays in the table 1 the" test in the "sample" of 117 in the listed financial firms "annual reports" from 2019 to 2022. The sustainability performance displays a mean with 0.243 and the financial digitalization shows 0.498.

Table 4-1 Descriptive analysis

Variable	Obs	Mean	Std. Dev.	Min
SR	117	0.243	0.345	0.000
FD	117	0.498	0.542	-0.312
BSIZE	117	5.542	0.432	1.000
FSIZE	117	0.342	0.720	0.432
FAGE	117	14.320	0.101	1.000

This research clarified in Table 2, the financial digitalization", board size, firm size, and firm age are positive and significantly correlated with sustainability performance. And firm age there is negative correlated with sustainability performance.

Table 4-2 Correlation analysis

Variables	SP	FD	BSIZE	FSIZE	FAGE
SP	1.000				
FD	0.182*	1.000			
BSIZE	0.407***	0.117	1.000		
FSIZE	0.162*	0.402***	0.400***	1.000	
FAGE	-0.040	0.138	0.337***	0.211**	1.000

The findings for the model shows in the Table 3 disclose the findings linking to FD which shows that FD has important and positive connection with sustainability performance (t=0.83, p-value=0.004). The board size and firm size have significant and positive connection with sustainability performance. The firm age has negative but not significant connection with sustainability performance. As a result, “hypothesis” H1 which predictions that FD is positive connection to SP. Asian regulators in financial sectors could enhance from these findings in their attempt to attain improve process on. Furthermore, the results of this research can also be used to define active FD and SP.

Table 4-3 Regression Results

SR	OLS	
Variables	t.stat	sig
FD	0.83	0.004**
BSIZE	-0.30	0.056*
FSIZE	0.42	0.005*
FAGE	0.10	-0.101
Constant	-0.29	0.761
OLS Heteroskedasticity		
n		117
R2 (%)		26%
Adjusted R2 (%)		45%
F-value		0.25
p-value		0.87

5. Conclusions and recommendations

This research proposes testing the impact of financial digitalization on the sustainability of Asian listed financial companies. The link among FD and SP is recognized employing the “regression analysis”. A results is the FD is positive linked with SP. Also used in this research board size, firm size, and firm age as the “control variables” presented a positive and negative connected with SP.

This study explores the impact of financial digitalization on sustainability by analyzing the relationship between financial digitalization and the development of sustainability indicators in different environments. It also tests the hypothesis that financial digitalization is a catalyst for enhancing sustainability, whether by increasing economic efficiency or reducing the environmental and social impact of financial systems.

This study recommends an evaluation of some indicators of “financial inclusion” in a number of Asian countries. The presentation showed that the performance of financial companies' systems in these countries varied, as financial inclusion indicators witnessed a significant improvement. At the same time, many problems related to the scarcity of company branches in rural areas, the weakness of the regulatory environment within which the financial sector operates, and the difficulty of obtaining credit information persisted. The study also attempted to test the impact of financial digital technology, represented by the use of modern methods of financial companies, credit cards, electronic debts, and mobile money, on financial inclusion in a number of Asian countries. Based on the above and “in order to enhance the growth and development of financial inclusion in Asian countries, the study recommends implementing broader and deeper reforms in most of these countries, including upgrading the level of infrastructure and improving the quality of financial services provided, modernizing the financial system, furthermore to maintaining a stable macroeconomic environment”. The study recommended the need to develop and modernize the technological infrastructure, including what is related to the communications sector and investment in modern financial digital technologies in various sectors, as well as the importance of training workers on how to deal with financial digital technologies, and focusing on security and privacy in financial digital financial transactions. Hence, it is possible to clarify the most important procedures required to be followed to expand the use of digital technology services that would grow and improve “financial inclusion” in Asian countries:

1- Establishing a specialized body whose mission is to accelerate the pace of digital transformation in various economic sectors

2- Spreading the “culture of digital financial technology at the level of individuals and companies at all levels”.

3- Supporting digital “transformation to include not only large companies, but also to include small and medium enterprises”.

4- Seizing new opportunities related to digital and electronic commerce, and promoting policies that provide a favorable “environment for productive digital trade and digital payment and clearance systems” to drive digital job opportunities, fair competition for digital businesses, and contributing to a distinguished position for Africa in the global digital economy.

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