



Digital Transformation and Strategy in the Banking Sector: Evaluating the Acceptance Rate of E-Services

Dr. Sanjeet Kumar

Ph.D. (Faculty of Social Science), Department of IRDM,
Magadh University Bodh Gaya, Bihar, India.

Corresponding Author - Dr. Sanjeet Kumar

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Abstract:

Digital transformation in the banking sector is a continuous process that affects both the external and internal environment by redesigning internal processes and existing methods. There are many reasons that digital transformation takes place, such as servicing remote areas without physical branches, differentiation from competitors or reduction of operating costs. In any case, there are a lot of doubts about the acceptance of digital technologies. Thus, this article examines the acceptance rate of digital transformation in the banking sector in Greece. One hundred and sixty-one employees at Greek banks completed the survey. A Multivariate Regression Analysis was implemented to analyze the items of the Technology Acceptance Model. The findings of this paper indicate the perception of bank employees with regard to new technologies. This paper provides a practical contribution for executives of Greek banking organizations to schedule targeted educational programs to facilitate the transition to the new digital era for their employees. Executives are curious if employees are ready to accept and implement digitalization in their daily job routine. Therefore, the Technology Acceptance Model can provide answers to executives in facing these challenges.

Keywords: Digital Strategydigital Transformationdigital Bankingtechnology Acceptance Modele-Servicesuser's Intentionbusiness Model

Introduction:

The modern, ever-changing technological environment forces all economic units to undergo digital transformation. Digital transformation has dual functions in that it enables banking organizations to offer new service channels through new electronic platforms (e-banking, virtual banking) and service points (e-branch stores, POS) and also reduces their operating costs by limiting the number of physical stores and staff that they use [1,2]. This is the reason that, according to [3], the banking industry worldwide spends three

times more money on IT investments than any other industry as a whole. Business models are under scrutiny in the banking industry. Digitalization, disruptive innovation and new technologies are changing traditional business models and processes.

For [5], digital transformation is identified as “the process that aims to improve a unit by bringing about essential changes in its structure through combining information, information technology, communications, and connectivity technology.” According to [6], the digital

transformation includes a broad concept of banking, namely: digitization of documents, an electronic signature for transactions, e-learning, teleconference, online trading platforms, digital stores, e-statements and m-payments. Customers are increasingly using digital disruptions, and new types of solutions are emerging in this sector. Thus, new business models are essential in the banking industry to spotlight all significant banking processes.

The transition to e-banking, however, is the result of other equally important factors, which include the need for banks to adapt to the new technological data of the time, to offer an additional service channel, to deregulate the banking market and to allow the entry of other companies (e.g. Alipay, Paypal) to intensify competition [1,]. Ref [5] used the term “open point of banking” to describe all non-banking companies offering products and services similar to banking. Half of the population in their research was receptive to using such products.

A significant number of banking transactions are now carried out on most people's computer or mobile phone. The plethora of possibilities, plus the saving of time and cost, and the ease of use of these applications constantly grants them a share of conventional banking channels (bank branches). Also, through these applications, the owners-customers are allowed to have real-time information about the valuation of their investment products, the banks' reward programs and the expenses they have incurred through digital media to receive more favorable tax treatment.

Materials and Methods:

Data Collection and Calculation:

The digital transformation of banks has two sides. The first one affects the customer base of banking institutions by offering new products, immediacy in transactions and banking presence 24/7 even in areas without a natural banking presence. The second one significantly influences their human resources. In the case of the customer base, the benefits are easily perceived through empirical papers on the use of new technologies e.g., e-banking, m-banking and, in the case of their impact on banks' staff, the existing academic research has not covered a significant aspect of this topic. Commonly, most of the up-to-date analyses on the subject are in financial investigations and forums. For many researchers, the term digital transformation is used in new digital trading channels such as e-banking, m-banking and e-branch. Few have associated it with the degree to which the banks' staff accept it and describe the opportunities or threats it creates or influences. As digital transformation is a relatively new concept in the banking sector, the relevant reports focus mainly on the degree of acceptance and usage of new technologies by users of e-banking applications, whether they are customers or bank employees. The first interesting reference is made in 1927 in an article in *The Australian Banker* [4], which shows the extent to which workers and their trade unions accepted the technological developments of that time in the banking industry. Characteristically, it is stated that when the old manuscripts were replaced with a computer printer, there was a portion of conservative employees who

strongly opposed the innovation. As reported in 1930 by a Queensland banker [4], those bank employees who would not adapt to the new requirements of the time were either moved to smaller rural stores or, even worse, were at risk of losing their jobs. Similarly, as early as 1933, there was the first reference [4] to trade union resistance to the Federal Council in adopting the technological innovations of the time, as they feared a reduction in jobs. In 1962, when the first computer was introduced to the State Savings Bank of Victoria, the trade union workers were the first to accept it without resistance. They actively supported the adoption of the digital transformation of that time. It is crucial to indicate that the employees adopted the innovation of the time, and they were compensated with shorter working hours and additional annual leave. As the next decade brought new technological advances (on-line terminals in cash registers and universal computer use), joint consultation between employers and unions became imperative. In this regard, joint committees were set up for the smoothest possible transition of bank employees to the new era. Comparing the above with the developments in the Greek banking market of 2019, there are many similarities. The most common aspect is the early reaction of employees to new technologies due to fear of change [5] and the risk of losing their jobs. Most previous studies reflect the attitude of bank staff towards digital transition. By grouping their results into the main idea and the determinants that influence the acceptance of digital transformation by employees, the following basic concepts are recorded:

change, Technology Acceptance Model (TAM), e-banking, employees' skills and strategy. A key factor in accepting the digital transition, as in any new and different case, is change management [6]. Employers' responsibility is to properly prepare for a culture of change [7] to mitigate possible adverse reactions that will jeopardize the new venture's success [5]. A common denominator in most surveys is TAM and the key variables that make it up, which are perceived ease of use, perceived usefulness and self-perceived effectiveness (perception of one's ability to use the resources of new technology efficiently) [28]. The rate at which TAM variables affect the degree of acceptance is presented in subsequent sections. In many studies (mainly of previous years), the concepts of digital transformation and e-banking are confusing. As the term digitization includes a much larger scope of work and is not exclusively a simple platform for banking transactions, the concepts should be separated. However, it is reasonable for e-banking users to be more receptive to technological change [6]. In every important issue that the management of an organization has to manage (especially in the banking space, where digital transition affects the way a vast number of staff work), a systematic approach and the preparation of a structured action plan within the organization are required [3].

Objective of the Study:

Based on the review of the above studies [3,4,5], four hypotheses are drawn up to analyse the association between the following variables: usage behaviour, perceived usefulness, perceived self-

efficacy, perceived ease of use and intention to use.

Hypothesis 1:

(H1) *Perceived Usefulness positively impacts Intention to use digital banking.*

Hypothesis 2:

(H2) *Perceived Ease of Use positively impacts Intention to use digital banking.*

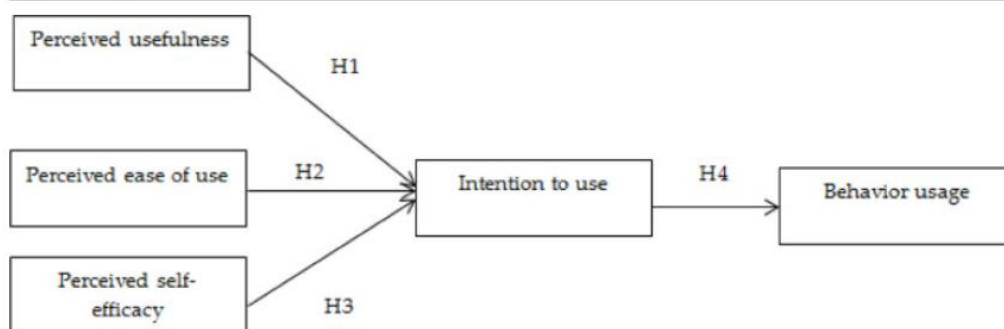
Hypothesis 3:

(H3) *Perceived Self-Efficacy positively impacts Intention to use digital banking.*

Hypothesis 4:

(H4) *Intention to use digital banking positively impacts Usage behavior.*

Figure 1 presents the theoretical framework.



Methodology:

The study was based on the TAM [4] and was applied to bank employees—members of the Federation of Banking Employees of Greece (OTOE)—using an on-line questionnaire. The questionnaire was administered to all bank executives of all levels. It would be misleading to have outcomes either only from the high-level executives (they might present digitalization as a virtue for the banking system) or only from the low-level employees (they might present digitalization as a vice). To represent the standard view, we choose not to concentrate on a specific level. The questionnaire used a five-point Likert-scale (Disagree–Agree) to measure five variables: usage behaviour, perceived usefulness, perceived self-efficacy, perceived ease of use and intention to use. The instrument was

based on similar research which focuses on the extent of acceptance of new technologies in the banking industry, both by staff and by end-users. Table 1 presents the items of the questionnaire for each variable.

Results:

The most significant percentage of the study's respondents belongs to the age group of 36–45 (58.7%). The above is considered completely normal because the last mass recruitments in the industry took place in 2007–2008 due to the economic crisis in Greece. Respectively, it is particularly noteworthy that few belong to the age category >56 years. Due to targeted voluntary exit programs, employees over 55 years old had a particularly significant financial incentive to use voluntary exit programs. The survey found a small

predominance of female employees (54.2% versus 45.8%). The vast majority of respondents (85%) hold Academic/Postgraduate/Doctoral degrees. Only 15% of the respondents do not have an academic degree. Those who responded to the survey are employed in 20 different units—objects of employment. The majority of the respondents work in the store network (45.8%), while a significant percentage (10.3%) manage red loans (unsecured claims). About 11.6% are in centralized services that support other units, while about 5.2% are in insurance services. Regarding the respondents' banking work experience, there is a concentration in the age groups of 11–15 and 16–20, whose population cumulatively reaches 60%. It is noteworthy that there is a group, composing 11.6% of the study population, who have experience

of 0–5 years. Almost all of these employees are employed in units such as IT-Informatics, HR and Internal Audit, and almost no one is employed in the branch network. Based on Figure 1, two models were created in order to implement Multivariate Regression Analysis to analyze the data. In the first model, the independent variables are perceived usefulness, perceived ease of use and perceived self-efficacy, and the dependent variable is the intention to use. In the second model, the independent variable is the intention to use, and the dependent variable is usage behaviour. The reliability was measured using Cronbach's alpha, and the values ranged from 0.860 to 0.911, exceeding the minimally recommended level of 0.70 [49,50]. These values are displayed in Table 2.

Table 2. Reliability analysis of the questionnaire items.

Variables	Cronbach α
Perceived usefulness	0.860
Perceived ease of use	0.863
Perceived self-efficacy	0.881
Intention to use	0.866
Usage behavior	0.911

Table 3. Correlation matrix.

	Perceived Usefulness	Perceived Ease of Use	Perceived Self-Efficacy	Intention to Use	Usage Behavior
Perceived usefulness	1.000	0.798	0.652	0.766	
Perceived ease of use	0.798	1.000	0.718	0.741	
Perceived self-efficacy	0.652	0.718	1.000	0.651	
Intention to use	0.766	0.741	0.651	1.000	0.573
Usage behavior				0.573	1.000

Conclusions:

This article explored the attitude of banks' staff in Greece towards the digitalization of banking operations and their transition to the new digital banking environment. In recent years, Greek banks' employees have also changed their work, as a significant part of their work has been digitized. For this purpose, 161 bank employees participated in this study. As all Greek banks have entered a time of transition to digital banking, in the bid to cut operating costs and adopt a more flexible model of customer service, they need to take cognizance of their employees' attitudes towards this new development. In an economic environment where many service sectors are pushed to search for innovative technological methods to serve their customers better and improve their internal processes, finding new business models with the digitalization of banking institutions' operations (digital transformation) is the most suitable process for the banking institutions of our country. Initially, this need was created for banks as they looked for ways to curb their operating expenses (reduction of physical stores and staff through voluntary exit programs), improve their internal processes and adopt a single way of working. Although many people associate the digitization of jobs with job cuts, the results of the survey show that employees in Greek banks do not oppose the digital evolution of their work. It is seen that, on the one hand, workers accept the new data in the digital economy (entry of new alternative providers, e.g., viva wallet, opap wallet, N26, Revolut); on the other

hand, there is an apparent risk of shrinking banking operations and intense banking competition in the domestic market. They do not leave much room for employees to oppose the new data. This is reflected in the survey results, as the majority of the employees show that they accept the latest data, and it is not harmful to accept the new methods and practices of digital banking. The most critical need in research is training on the usage of new technologies through training programs. Employees in Greek banks are not threatened by digital banking, but they need guidance and training on how to apply these new technologies. This is not only employees' perception. Such e-learning programs are now taking place in the banking sector in order to create a smooth transition to the new era; however, the question is, 'Will those employees who are not familiar with the new technologies and, who seem to have the greatest need to be taught how to use them, be given opportunities to go for training?' The lack of specialized human resources that have the appropriate skills to complete the transformation processes can cause delays in completing the projects. Also, the lack of non-automated processes that require human intervention can lead to the loss of data relevant to the operation of the bank, such as data about its relationships with customers. In the recent agreement between the Union of Greek Banks and the Greek Federation of bank employee unions about the new working framework, one significant issue was the need to have people using new digital tools. Both sides agree that only through educational programs can

employees enhance the positive effects of digitalization and overcome the fear of both sides about the upcoming transition. Digitalization creates new opportunities for development, however, there is a need for a smooth transition through training. Another notable finding of this study is the rate at which employees are satisfied with their work. Employees in Greek banks seem to be generally satisfied with their work, especially in terms of their long-term employment prospects, as they do not see the risk of redundancies. Their most important concerns are related to remuneration policy, as they consider that there is a disproportion between wages and workload, the lack of prospects within the organization and, finally, their inability to apply their methods and practices in their work.

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