Customer reception of digitalization of retail services by financial institutions during covid-19 pandemic: the case of turkey and Emea Region

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Abstract

The usage of the Internet in our daily life, the unstoppable development of technology and competition have made it necessary for financial institutions to work more technology oriented. Because banks have turned to digital banking applications. By using digital tools, people can to most of the things automated and faster that they have done manually in the past and ubiquitous mobile technologies introduced more opportunities for digital life style. In the context of COVID-19 consumers' spending and banking preferences are rapidly evolving and retail banks face an urgent imperative to reshape their existing digital and remote channels. Purpose of this research is to examine the customer reception, under the distress conditions of COVID-19 health crisis, of new digital and remote channels offered by retail banks in Turkey and EMEA region. A comparison between satisfaction levels of customers in different nations is also made. Results revealed no difference between satisfaction level of retail banking customers in different regions considering digital tools provided, but mixed results in fin-tech services usage highlighted a possible gap in digital transformation efforts of financial institutions.

Keywords: Customer acquisition; COVID-19 pandemic; Digital banking; fin-tech services; retail banking

INTRODUCTION

Many banking and finance companies are looking for ways in which they can accelerate digital transformation in their business functions after the COVID-19 outbreak. Digitalization for financial institutions, in other words transforming business operations and performance, customer service and experience through more automated, secure and faster practices, requires an automation capability with artificial intelligence, process mining, analytics and other advanced technological tools. Under pandemic conditions another challenge has arisen for financial institutions, especially for retail banking, providing contactless transactions and services.

Organizations that deliver highly digitized business capabilities in a composable and modular way have the biggest opportunities. In terms of these opportunities, financial institutions have a reputable saving from their operation costs and time. When innovating operations, balancing the risks, capabilities and potential costs against business benefits should be considered. The main purpose of digitalization is saving costs and reducing operation times. Reducing number of bank branches and headcounts, creating more automated branches and increase operation efficiency with RPA (Robotic Process Automation) systems, natural language processing (NLP), machine learning (ML) and artificial intelligence (AI), financial institutions will be able to gain a competitive advantage, save money and time. However fewer branches and headcount cannot be the only objective for a successful digital transformation, especially with the current state of pandemic.

By using digital tools, people can to most of the things automated and faster that they have done manually in the past and ubiquitous mobile technologies introduced more opportunities for digital life style. For preferred payment types, an emerging trend proves that most payments will become digital in future (see Figure1). Financial institutions have different channels to reach customers and new digital solutions for customers are increasing in the industry from different channels such as mobile, telephone, online banking. Previous research on banking services shown that "the vast majority of customers receiving banking services in Turkey (65%) use mobile banking, 21% prefer to use internet banking, while only 14% still prefer to use branches. From the point of view of

digitalization of traditional banking services, Turkey performs with 50% above the EMEA average (40%)" (Çavuş, 2018).

Figure 1. Emerging Payment Solutions in Europe (2021)
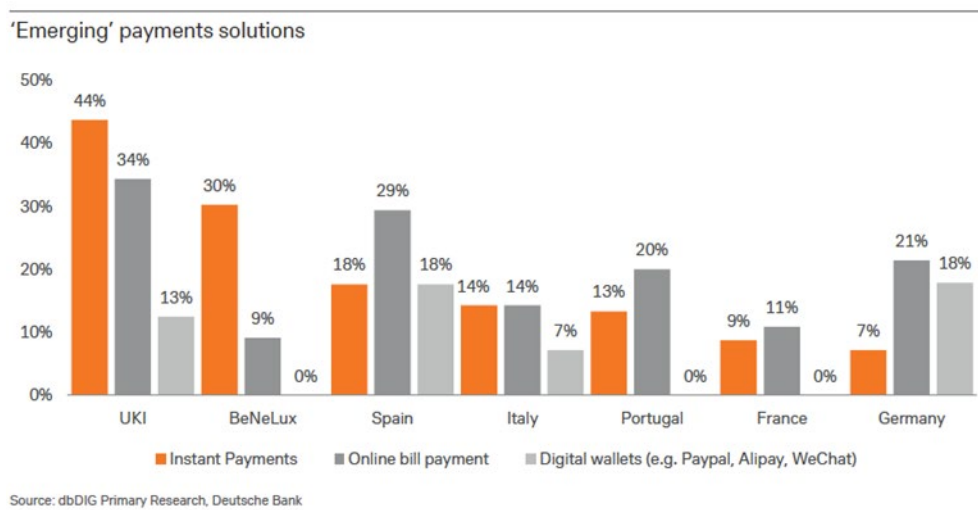
In the context of COVID-19 consumers' spending and banking preferences are rapidly evolving and retail banks face an urgent imperative to reshape their existing digital and remote channels. A study in Denmark, based on transaction-level customer data from the largest Danish Bank, shown that "aggregate spending was on average 27% below the counterfactual level without the pandemic in the seven weeks following the shutdown" (Andersen et.al, 2020). Another research from Romania revealed increased level of mobile/internet banking services consumption of customers during the pandemic in comparison with the period before the pandemic (Baicu et. al, 2020). This study is about customer reception of digitalization efforts and new services of retail banks operating in Turkey and EMEA region. Among others, comparing the satisfaction level of customers in Turkey and EMEA region is the major purpose.
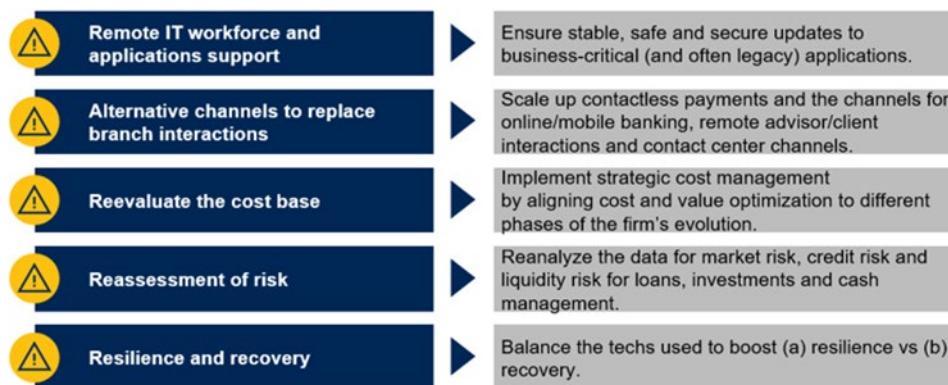
COVID Pandemic forced banks for an immediate change. Customers needs and behaviours keep changing and banks need to adapt to the conditions of lockdowns during pandemic. Banks invested in new technology services and products more than before because the need for digitalization of retail banking and contactless consumer service become the new normal after Pandemic. "With the permission of remote customer acquisition, we will be able to become the customer of the bank we want without going to any branch of the bank or making physical contact. In this customer-bank relationship, where human interaction

is almost non-existent, all interaction will take place through digital applications" (Sezer, 2021).

Digitalization for financial institutions allows cost saving from operations while considering from the financial perspective. Better customer service and experience, automated human resources, increasing day-to-day operations efficiency, gain a competitive advantage, simplifying IT systems, reducing operation costs and time are the main benefits of digitalization for financial institutions. "Bank, investment and insurance CIOs have an abundant choice of overlapping automation tools, making it a challenge to determine what to use and how. CIOs should start the selection process with a clear view of the business problem and then determine which automation technologies can solve it" (Shotton & Sturgill, 2021).

Figure 2. CIOs IT Investment Alignment to Face COVID-19

COVID-19 Forced Immediate Change on Banking CIOs

⚠ Remote IT workforce and applications support	Ensure stable, safe and secure updates to business-critical (and often legacy) applications.
⚠ Alternative channels to replace branch interactions	Scale up contactless payments and the channels for online/mobile banking, remote advisor/client interactions and contact center channels.
⚠ Reevaluate the cost base	Implement strategic cost management by aligning cost and value optimization to different phases of the firm's evolution.
⚠ Reassessment of risk	Reanalyze the data for market risk, credit risk and liquidity risk for loans, investments and cash management.
⚠ Resilience and recovery	Balance the techs used to boost (a) resilience vs (b) recovery.

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The biggest threat for banks is internal factors instead of external factors that is usually comes from their employees who is careless or not conscious for malicious threats and risks. Digital workforce that telecommutes increased significantly for financial institutions during the Pandemic. This affected the way of doing business and customer experiences in retail banking. Employees stayed at home and started to work remotely at various locations but the rise in remote work brought vulnerabilities. Risks related to consumer privacy and theft of sensitive financial data increased as more telecommuters were authorized for remote access to the databases and systems of the financial institutions. To mitigate such

risks, banks need to reassess the impact of remote work and invest accordingly in security controls and network support.

With right digital tools, process and automation tools, human errors and fraud could be more preventable for financial institutions. Machine learning could be the biggest opportunity to prevent fraud while financial institutions get digitalized in the future. ML algorithms are now used to detect credit history falsifications, the instances of fraudulent debt reduction, by quickly and accurately identifying the authentic actions. ML is also effective in minimizing mobile fraud as abnormal activities of mobile payment users can be detected thus additional authentication can be enforced by the financial institution. Moreover, ML software has the ability to differentiate between actual and spam or fraudulent email addresses so that most phishing attempts to steal financial account information of bank customers can be diverted. As a matter of fact, people are more vulnerable to mobile and online/e-commerce fraud during COVID-19 way of life. Most of the shopping is done online and contactless mobile payment technologies are used via smartphones. As mentioned, ML technologies can assist financial institutions in protecting not only their own assets but the interests of their clients as well.

In December 2020 Deutsche Bank (DB) and Google Cloud signed an agreement to "co-innovate the next generation of cloud-based financial services" and one of the goals of this cooperation is "establishing a unified, intuitive interface for retail customers in Germany to more easily view the range of Deutsche Bank and Postbank products" (Google, 2020). Providing cloud based client services generally considered vital for digital transformation strategy of banks and often used as an alternative channel to replace branch interactions. Branch interactions can also be substituted with online messaging systems that provide instant communications channels through chat applications. To further communication capabilities with retail customers, DB was one of the first financial institutions to integrate WhatsApp into its list of client interaction platforms. This was also part of DB's strategy to expand client communication channels during COVID-19 pandemic, "the uncertainty surrounding the global COVID-19 pandemic has increased the need for around the clock communications with clients through a variety of messaging platforms" stated by the bank (Smith, 2020). Vessey, Ott and Dimidschstein (2020) point that financial institutions

should develop those digital capabilities that maintain a "human touch", allowing them to better interact and support their clients (for example, live chat or video calling).

RESULTS

Former studies based on widely accepted theories like innovation diffusion theory (IDT) and the technology acceptance model (TAM) addresses to the impact of technology and innovation on consumer behavior in digital banking environments (Hanafizadeh et al, 2014; Waite & Harrison, 2015). Rather than developing and testing a theoretical model similar to the ones already introduced in the literature, our study intended to explore the differences in reception of digital services in retail banking during pandemic, therefore banking consumers from Turkey and other foreign regions were targeted. In other words, our key assumption or hypothesis is that, COVID-19 health crisis has changed the consumer behavior in retail banking beyond doubt in many regards. During several isolation periods, authorities enforced limitations on access to many services including banking ones, so online solutions emerged in retail banking and people embraced the digital life style essentially.

In order to assess the COVID-19 and digital banking services effects on retail banking consumers' behaviour and satisfaction, where the consumers were from different nations, 5 hypotheses were proposed. For space limitations only 3 of them are introduced in this paper. These three hypotheses and some of their constructs are presented in Table 1 below.

Table 1. Research hypotheses and constructs

Hypotheses	Constructs
There exists a difference between customers' satisfaction with the digital advantages and solutions provided by the banks during the pandemic process (H1)	- Satisfaction level with the digital services - Satisfaction level with the security

There exists a difference between usage of digital tools for customer service (H2)	- Level of internet banking services usage - Level of mobile banking applications usage - Video conferencing tools
There exists a difference between usage of fintech applications provided by the banks (H3)	- QR code applications - Contactless card usage - Remote lending channels

For data collection and to test research questions, three financial institutions from Turkey, Europe and EMEA Region were selected. Selection criteria for these financial institutions was their operational activities in different regions or country and below is the list of included banks:

Bank A: This is a Turkish bank that has operations only in Turkey.

Bank B: This is an European bank that operates both in Turkey and EMEA Region.

Bank C: This is an European bank that has activities only in Europe.

An online questionnaire was administered within the operational periphery of the selected financial institutions. The data obtained from the questionnaire was analyzed through the SPSS 25 program. The frequency distribution (frequency and percentage) and graphs were used for the banks in which the customers involved in the study received services. Kruskall Wallis test was applied in comparison analysis due to the fact that the dependent variable was included in the ranking scale when evaluating the data in the study, and there were more than 2 independent variables. The results were evaluated at the level of significance $p < .05$, within the confidence of 95%

Table 2. Frequency distribution of respondents from 3 banks

Banks		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A Bank	95	52,5	52,5	52,5
	B Bank	38	21,0	21,0	73,5
	C Bank	48	26,5	26,5	100,0
	Total	181	100,0	100,0	

The Kruskal Wallis test was applied to compare the level of satisfaction of customers working with banks A, B and C with the digital advantages and solutions provided by the bank during the pandemic. Accordingly, there are no significant differences in the level of satisfaction with the digital advantages and solutions provided by the bank during the pandemic process compared to customers of banks A, B and C ($p > .05$). In other words, it seems that the levels of satisfaction with the digital advantages and solutions provided by the bank during the pandemic process between banks A, B and C and customers do not differ decidedly (Figure 3). Preliminary analysis of the collected data indicates that H1 is rejected, or there exists no difference between satisfaction level of customers from Turkey and other regions.

Since the threats such as cyber-attacks, fraudulent claims, risks associated with data security and identity theft are not diminished during the COVID-19 health crisis, one of the constructs in testing our first hypothesis was related to security measures provided by the banks in case of suspicious transactions online. Banks keep confidential data such as customer and financial information in their databases and information systems and they authorized more of their employees for remote access to these systems during social distancing and lockdowns, therefore vulnerability of system security is increased. However, it is better for financial institutions to pay attention to the trade-off between increased security measures and usability of online services. Adding more security measures to digital services and online banking applications may have an unexpected impact on customer usage and satisfaction.

Table 3. Examination of the difference between the digital advantage and solution levels provided by the bank during the pandemic between the clients of Banks A, B and C

Variable	Type	n	$\bar{x}line$	X^2	sd	p
Satisfaction with the	A Bank	95	89,92			
digital advantages	B Bank	38	84,66			,381
and solutions	C Bank	48	98,16			
provided by the bank				1,930	2	
during the pandemic						
process						

Satisfaction of respondents related to security solutions provided by the banks is presented below. Four point Likert Scale type responses were collected from the participants.

Figure 3. Satisfaction level of digital banking solutions and applications during Pandemic
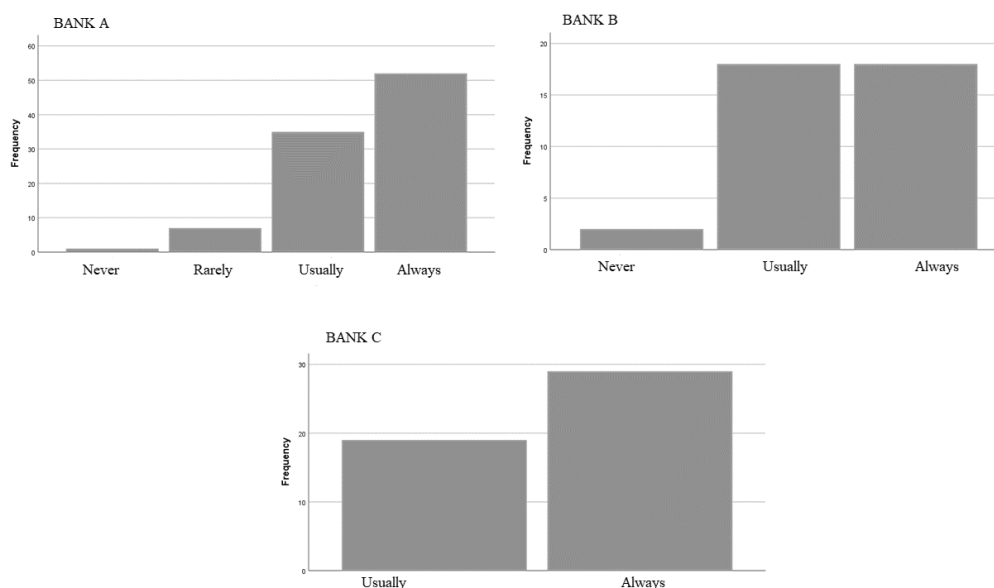
Bank A: This is a Turkish bank that has operations only in Turkey. Bank B: This is an European bank that operates both in Turkey and EMEA Region. Bank C: This is an European bank that has activities only in Europe. Comparison of satisfaction level of digital banking solutions and applications during Pandemic.

DISCUSSION

Because of the repeated lockdowns and social distancing imposed under COVID-19 pandemic, retail banking consumers' have been obliged to use more digital services and remote channels to classic channels and branch transactions detriment. This study reaffirms that customers adopted and were using online banking services and other digital channels developed by retail banks. Additionally, results do not support the existence of regional differences between customer reception for most of the digitalized services and online banking. Similarly, retail banking customers from three financial institutions operating in Turkey, Europe and EMEA region put across high satisfaction with the digital solutions provided during pandemic crisis.

CONCLUSION

On the other hand, customers reaction to the fintech applications shows some variation. This may be a sign of unavailability of some fintech tools. Our statistical analysis also verifies such absence of fintech tools offered. For example, based on frequency distribution analysis, QR code withdrawal feature as a cardless transaction is provided just by one bank operates only in Turkey. This is not suprising, in the sense that, depending on their digital transformation strategies retail banks are implementing digitalization initiatives in different pace and urgency. Such fluctuations in digitalization efforts or the late introduction of new technologies by financial institutions can be the limitation for this study. Since no digitalization criteria were preset during the selection of financial institutions, availability of digital technologies in all categories were not taken into consideration. For future research, financial institutions can be selected through benchmarks that are based on diverse and multiple digitalization criterion.

Findings from this study once again emphasized that security is still a major issue for digital service consumption in retail banking. Customers from all 3 financial institutions were satisfied with the solutions and support provided for secure services. COVID-19 crisis put distress on consumers since they have to complete most transactions remotely but the current security measures of banks seems to be working effectively. Although fintech services have a way to go, financial institutions must have a clear view of customer needs

and expectations through their capabilities for digitalization strategy even after the COVID-19 pandemic.

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