# Internet based Innovation Strategy for the Banks in the Era of 2008 Global Financial Crisis

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# Abstract

The latest turmoil in financial markets and subsequently in the global economy has challenged international banks and financial institutions, diminishing their returns and capital, increasing volatility in capital markets affecting investment tendencies. In advanced economies, well known financial institutions and banks experienced bankruptcy. Innovative banks implementing competitive strategies in internet banking stood alive and took rebound in economic recovery process, faster than other traditional banks. In this study, it is aimed to draw a theoretical frame for the success in innovative bank strategies related to internet banking services and transactions. Moreover, the linkage between profitability, internet based innovative strategies and the number of internet based transactions in Turkish Banking Industry has been examined questioning how it helped innovative banks to respond simultaneously in recovery process.

Key Words: Financial Crisis, Internet Banking, Strategy, Profitability, Innovation

# 1. Introduction

Global financial crisis which intensified in the last quarter of 2008 turned into a global economic crisis including sharp slowdowns in global economic activities. Some of major economies also experienced recessions during economic collapse. Moreover, the major impact of 2008 economic crisis on banking industries was fatal for many reputable banks. During financial turmoil, some of pioneering financial institutions faced bankruptcy. Some of them were assisted by central governments and rescued by capital injections. Recruited financial institutions began to take rebounds in financial activity after regulations in markets took place in practice.

In advanced economies, banks with adequate liquidity, capital strength, sufficient implementation of risk management principles and innovative strategies succeeded to regain their stakeholders' loyalty. Those banks have successfully competed with others based on internet based innovation strategies. Leading banks in the industry were identified as the winners at the forefront of electronic payments, winning new customer in growing markets, growing deposits and producing cost efficiency following the recovery process of the world economy. In literature, studies illustrate the importance of effective internet banking activities in cost efficiency, productivity and long term profitability. Moreover, researchers argue that there is a linkage between innovation in internet banking activities and bank's profitability. Moreover, it is pointed out that the banks having a well articulated online strategy helps innovative banks stand out from their competition [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12].

# 2. Financial System Outlook in Global Economic Crisis

## 2.1. Financial Turmoil in 2008

Market risks related to mortgage systems in America transmitted into a systemic risk with its devastative effect on financial conditions and the effective circuit of credit system which is necessary for banking services and real industry as financial stress transmitting from advanced economies to emerging economies (fig.1)[13]. Financial crisis linked to subprime mortgage system in US has catastrophic effects on financial stability and turned into a global economic crisis. Subsequently, investors and traders have lost confidence in the global economy inflicted by the stress of financial system. Especially advanced and emerging markets have almost lost their functionality.

#### **Insert Figure 1 about here**

According to World Bank and IMF reports on world economy, advanced economies experienced on unprecedented 7.5 percent decline in real GDP in the fourth quarter of 2008 [14]. Figure 2 illustrates the growth and unemployment rate in advanced economies in comparison with emerging economies: Growth is low while unemployment is high.

The collapse in the global financial system transmitted risks into commercial life as banks require more liquidity, capital injections and intervention and guidance of legal authorities on transfer of toxic assets. At last, governments in advanced economies interfered into business of banking and central banks simultaneously dropped the interest rates and injected liquidity into the financial system in order to create financial stability and support economic recovery efforts.

## 2.2. Financial System in Recovery

Following the intervention of governments and regulatory bodies into the financial systems; (1) accessing liquidity was granted, (2) toxic assets in bank's balance sheet transferred into state backed funds, (3) major banks under stress of capital were supported by capital injections, (4) weak financial institutions were forced to bankruptcy.

#### **Insert Figure 2 about here**

Measures taken to stabilize the world economy and financial system supported recovery process to gain strength. However, problem of unemployment and the latest emerging macroeconomic risks in Euro Zone, related to debt crisis in Greece, Italy, Spain and Portugal seem to affect advanced economies again. Table 1 illustrates the figures on IMF's projections on the World Economic Outlook; there is a recovery in the world economy in 2010. However, projected figures show the changes in the world economic output in 2011 and 2012 under the effect of ascending financial stress and volatility in the markets.

Some economists including Frederic S. Mishkin have been criticizing FED's fiscal policies and many of them concerned that the effectiveness of cuts in the target federal funds rate may have been diminished by the financial dislocations, suggesting that further policy action might have limited efficacy in promoting a recovery in economic growth [15].

#### **Insert Table 1**

#### 2. The Role of Innovative Banking Strategy in Financial Turmoil

Until the first quarter of 2011, financial markets under the positive effect of liquidity injections, financial reinforcement and regulatory measures sustained positive outcomes flashing strong profit opportunities especially shown in banking industry. Positive atmosphere spurred equity prices and lowered bond prices as volatility decreased. However, under stress of Greece's possible default risk, volatility in financial markets increased once again with increasing risks on European banking activities affecting investor's appetite on stock investments.

Bank operations during the turmoil are complicated and required (1) strong capital and adequacy, (2) skilled staff and managers, (3) risk management systems and practices, (4) ability to adapt banks operations to change, (5) developing innovative solutions in financial applications and channels including e-banking.

Innovation process for banks has not been an easy task for examination. However, there is no doubt on the fact that Banks investing in innovation technology have better results in return on equity than any other banks not sufficiently investing in innovation technologies.

Researches also illustrate that in the last two years, innovative banks have challenged sufficiently against the effect of volatility and operational obstacles in banking industry. Especially the banks stayed alive after the first wave of financial tsunami, they had implemented new investment strategies in internet banking.

Amid the recession, mortgage loan market debacle, sovereign debt crisis and intervention of regulatory regimes, banks have continued to push the envelope with their banking initiatives [2].

Researches on service quality measurement in internet banking services also linked to cost efficiency, productivity and competitive advantage as traditional banks satisfying only the needs of their customers by delivering a range of banking service products, mostly in face to face encounters while the modern banks investing in internet technologies, delivering remote banking services which is gradually reducing human contact. Via the use and implementation of internet technologies, in volatile financial markets, customers can transact with the bank's computer network at anytime and anywhere [1], [2], [3], [4], [5], [6].

*Global Finance* identified the leading banks that are finding ways to thrive online during economic crisis. According to Surveys, some of the internet banking leaders including Citi, HSBC, Lloyds TSB International, are the winners at the forefront of electronic payment, winning new customers in growing markets, fortifying relationships with existing clients, developing mobile banking applications, growing product lines and producing cost efficiency. Therefore, these banks that have a well articulated online strategy stand out from their competition [2]

# 4. Internet based transactions in the Turkish Banking sector and financial outcomes

Turkish banks and their tendency towards investment in internet technologies have interestingly been adapting to global competition. Turkish banks with thanks to the bitter experience of 1999 and 2001 last banking crisis, managed well to the challenge of 2008 global financial crisis. The figures adopted from the Association of Turkish Banks illustrate the role of internet based banking investments and transactions have important role in Turkish Banks' financial recovery in global financial crisis.

In 2005, after the U.S. mortgage crisis, the Turkish banking sector has entered into a severe restructuring process. Increase in foreign-owned banks by the Banking Law regulations and foreign direct investment has started to boost the competition day by day. Banks in the increasingly competitive environment, by activating the alternative distribution channels, care to provide the services that meet the customer needs. At this point, the banking transactions on the internet has gained momentum step by step, in parallel with this increase, internet based product diversity has also raised.

#### **Insert Figure 3 about here**

Internet-based transactions in the Turkish banking sector can be examined as the 2 main groups which are investment and financial transactions. Investment transactions on the internet can be summarized in 7 categories such as gold transactions, bonds and bills, repurchasing agreements, realized share certificate and Turkish Derivatives Exchange (VOB) transactions, time deposit accounts, foreign currency transactions and investment funds. Investment transactions on the internet have fluctuated since 2006 in Turkey. Specially, in the post-global crisis period, investment transactions are mainly accounted for the stock transactions. However, foreign currency transactions and investment transactions also have priority over the internet based investment transactions during the period.

#### **Insert Figure 4 about here**

Financial transactions on the Internet can be analyzed in 4 basic categories. Money transfer operations have been almost the biggest share each time since 2006. As an alternative to the physical payment systems in banks, Internet-based payment transactions have started to increase day by day. So, this situation shows that customers prefer to utilize from the internet rather than using the physical branches for the payment transactions. In addition, retail customers are predominantly in the analysis of the customer profile for the internet based transactions and commercial customers have increased dramatically since 2008.

#### **Insert Figure 5 about here**

The banking sector into the restructuring process after the 2001 crisis get more momentum with the banking law in 2005. As a result of the increase in foreign investment and merger-acquisition activities, shifting to the core banking activities has been accelerated.

In parallel of this development, banks have focused on non-interest incomes depending on the falling interest rates and declining margins. As seen above, interest income includes interest on loans, securities portfolio and deposits in other banks, Interbank Funds sold other interest income like that. Non-interest income indicates income from commissions and Fx transactions, capital market transactions and other Non-interest income. In this context, non-interest banking income with its steady growth since 2005 was decreased by the negative impact of the global crisis in 2008. However, the growth of non-interest income has continued after this period. Interest income in the banking sector was inside an upward trend until the end of 2006, after this year, continuous downward trend shows itself.

## **Insert Figure 6 about here**

As the banking sector maintains positive progress in terms of return on assets until the 2008 Global crisis, in the post-crisis period, the net profit / total assets continues to be at the growth trend. The relative slowdown in the banking sector profitability has been seen in 2010.

## 5. Conclusion

Global financial crisis which intensified in the last quarter of 2008 turned into a global economic crisis including sharp slowdowns in global economic activities as many banks in advanced economies experienced bankruptcy. Innovative banks have challenged sufficiently against the effect of volatility and operational obstacles in banking industry during financial turmoil. Especially the banks stayed alive after the first wave of financial tsunami, they had implemented new investment strategies in internet banking.

Internet banking services are linked to cost efficiency, productivity and competitive advantage as the innovative banks investing in internet technologies, delivering remote banking services which are gradually reducing human contact. Via the use and implementation of internet technologies, in volatile financial markets, customers have found cost efficient and time saving channels to transact with the bank's computer network at anytime and anywhere. Leading banks in the world had found ways to thrive online. Innovative banks are the winners at the forefront of electronic payment, winning new customers in growing markets, fortifying relationships with existing clients, developing mobile banking applications, growing product lines and producing cost efficiency. Therefore, these banks that have a well articulated online strategy stand out from their competition.

Turkish banks and their tendency towards investment in internet technologies have interestingly been adapting to the requirements of global competition. Turkish banks with thanks to the bitter experience of 1999 and 2001 last banking crisis, managed well to the challenge of 2008 global financial crisis. The figures adopted from the Association of Turkish Banks illustrate the role of internet based banking investments and transactions have important role in Turkish Banks' rapid rebound in the era of 2008 global economic crisis.

While the rate of interest income in operating income in the banking sector fell in regularly after 2006, noninterest income shows a stable growth trend, except for the 2008 global crisis, over the years. This situation demonstrates that competitive environment in Turkish Banking sector, together with the effect of the Banking Act, has been accelerated by the declining interest rates and the increasing foreign investment due to the economic development. Thus, non-interest income sources specially start to become the one of the most important productivity factors for the Turkish banking sector. In this context, the growth of the internet based financial and investment transactions will be a foregone conclusion. In addition to this, return on assets in the banking sector is largely parallel to the growing trend of banks' non-interest income. Therefore, instead of focusing on instruments that contain interest income, concentrating on the alternative distribution channels based on non-interest income such as Internet banking activities will provide to be one step ahead at the competitive environment, Finally, concentrating the internet based transactions as an engine of the banks' growth is an inevitable situation.

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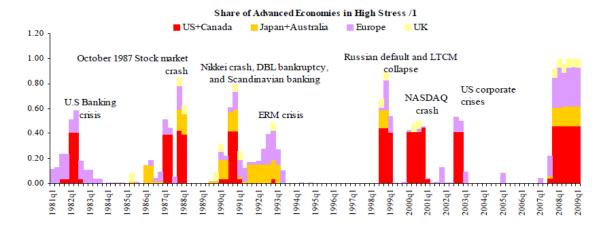
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#### Appendix

Table 1: Overview of the World Economic Outlook Projections (As Percentage) [14]

	2009	2010	2011	2012
World Output	-0.5	5.0	4.4	4.5
Advanced Economies(AE)	-3.4	3.0	2.4	4.5
USA	-2.6	2.8	2.8	2.9
Germany	-4.7	3.5	2.5	2.1
France	-2.5	1.5	1.6	1.8
Italy	-5.2	1.3	1.1	1.3
Spain	-3.7	-0.1	0.8	1.6
ŪK	-4.9	1.3	1.7	2.3
Japan	-6.3	3.9	1.4	2.1
Emerging and Developing Economies	2.7	7.3	6.5	6.5
World Trade Volume	-10.9	12.4	7.4	6.9
Consumer Prices in AE	0.1	1.6	2.2	2.7



## Figure 1: The transmission in Advanced Economies [13]

Figure 2: (a) GDP Growth Rate, (b) Unemployment Rate [14]

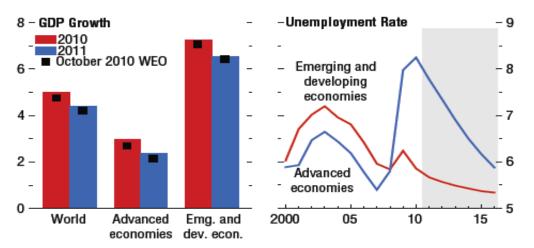
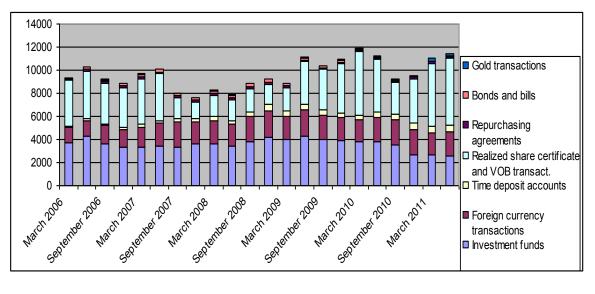


Figure 3: Number of internet based investment transactions (thousands), adopted from The Banks Association of Turkey.



# Figure 4: Number of internet based financial transactions (thousand) adopted from The Banks Association of Turkey

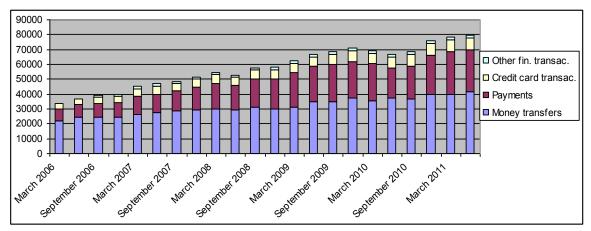


Figure 5: Changes in Interest and Non-interest income in the Turkish Banking sector, adopted from The Banks Association of Turkey

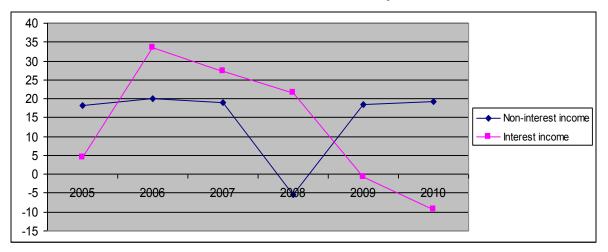


Figure 6: Net Profit (Losses)/Total Assets in the Turkish Banking Sector, adopted from The Banks Association of Turkey

