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## Internet Banking Websites Performance in Greece

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### Abstract

Research studies have paid no sufficient attention in examining the performance of internet banking (IB) websites. This paper examines factors such as the reach percentage (real users), the traffic rank and the number of web pages viewed (per IB user per day). The main objective of this paper is to explain the performance of Greek IB websites in 2008. The results show that only large Greek banks show high average statistics. However, their statistics are low compared to other European banks.

**Keywords: internet banking; websites; reach; traffic rank; page views; Greece**

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## **INTRODUCTION**

Technology continues to make a significant impact in service industries (banking) and radically shapes how services are delivered (Durkin, 2007). Informational technological (IT) developments in the banking industry have speed up communication and transactions for customers (Giannakoudi, 1999).

The banking industry has been significantly influenced by evolution of technology, such as the use of internet (web). Internet adds another delivery channel to the existing channels in banking system (ATMs, branches, and telephone). Internet banking (IB) refers to the use of the Internet (web) as a remote delivery channel for banking services, such as opening a deposit account or transferring funds at different accounts etc. Further, IB is a desirable opportunity for banks, where the key to success is customer adoption (Nelson and Richmond, 2007).

The evolution of internet banking has many advantages over traditional banking delivery channels (Gan and Clemes, 2006). This includes an increased customer base, cost savings, mass customization and product innovation, marketing and communications, development of non-core businesses and the offering of services regardless of geographic area and time (Giannakoudi, 1999). Further, the main (economic) argument for adopting the Internet as a delivery channel is based on the expected reduction in overhead expenses made possible by reducing and ultimately eliminating physical branches and their associated costs such as staff and rent (Hernando and Nieto, 2007).

No research studies have paid sufficient attention in examining the performance of internet banking websites. This paper's analysis includes factors such as the reach percentage (real users), the traffic rank, and the number of web pages viewed (per IB user per day). The main objective of this paper is to provide recent information to explain the performance of Greek internet banking websites in 2008.

## **INTERNET BANKING WEBSITES IN GREECE**

The revolution of the IT in banking began in the early 1970s with the introduction of the ATM and credit cards, followed then by telephone, web and mobile. The rapid expansion of IB is most noticeable in the developed countries such as the USA, Australia as well as European countries (UK, Germany, France, Norway, Denmark etc.), where the availability and easy access to the internet has made it easier for banks to adopt IB (Jenkins, 2007). Offering IB services contributes to the overall image of the bank through "the variety of services offered", "accessibility of these services", "enhanced level of security as perceived by the customers" and "its consistency with all the elements and actions that make up the reputation of the bank" (Flavian et al., 2004). Further, according to Nelson and Richmond (2007), IB does improve banks profits. They report that the extent of this impact depends on the number of customers the banks succeeds in getting to adopt it.

The last decade the number of banks that adopted IB increased dramatically. These include both large and small banks from all over the world. This paper provides all statistics necessary to evaluate the IB websites in Greece. Not as many Greek customers as banks would desire use IB services. According to Sayar and Wolfe (2007),

websites can be evaluated either from users, providers or both together.

To analyse the behaviour of IB users in Greece (and the daily performance of IB websites), we use data from the official website of Alexa, the web information company ([www.alexa.com](http://www.alexa.com)). In particular, we consider the following statistics:

- Reach: it measures the number of users. Reach is typically expressed as the percentage of all Internet users who visit a given site (one-week and three-month average reach are measures of daily reach, averaged over the specified time period).
- Page views: It measures the number of pages viewed by site visitors. Multiple page views of the same page made by the same user on the same day are counted only once. The page views per user numbers are the average numbers of unique pages viewed per user per day by the visitors to the site. The three-month change is determined by comparing a site's current page view numbers with those from three months ago.
- Daily traffic rank: It reflects the traffic to the site based on data for a single day. The traffic rank is based on three months of aggregated historical traffic data from millions of Alexa users and data obtained from other, diverse traffic data sources, and is a combined measure of page views and users (reach). Daily traffic rank in the Trend graphs allows short-term fluctuations in traffic. It is possible for a site's three-month traffic rank to be higher than any single daily rank shown in the Trend graph (for more information see Alexa.com).

Table 1 shows an overview of the Greek banks examined in this study. We consider data from 15 top banks. Our analysis is divided into three groups of five banks each. We categorized the banks following the World Ranking (based on the official reports published in Bankscope). Accordingly, group 1 has five large banks (National Bank of Greece; Eurobank; Alpha Bank; Piraeus Bank; Emporiki Bank), following by group 2 (Agricultural Bank; Marfin Bank; Post Bank; General Bank; Attica Bank), while the last group has 5 remaining banks (Aspis Bank; Probank; Proton Bank; Panellinia Bank; Millennium Bank). All 15 banks offer banking services over the Internet (web). Table 1 presents not only the websites of the above banks, but also their total assets (along with the year of establishment).

Furthermore, Table 2 shows the performance statistics of their websites. In particular, we report the three-month average statistics as measured over the specified time period (as reported previously). Looking at the reach statistics, Eurobank is ranked first, while the page views statistics show mixed results (Probank is ranked first with 14.7%). Our results show that large banks (group 1) provide greater statistics in terms of the average number of Internet banking users. Hence, the five largest Greek banks attract (and adopt) more internet banking users than any other bank in Greece. However, we should notice that the percentages are very low compared to other European banks offering banking services over the Internet (e.g. Scandinavian banks).

**Table 1 – Overview of the Greek Banks**

BANK	World Rank*	Established	Total Assets* (2007) – mil EUR	WEBSITE
<b>GROUP 1:</b>				
National Bank of Greece	169	1841	90386	<a href="http://www.nbg.gr">www.nbg.gr</a>
Eurobank	215	1997	68389	<a href="http://www.eurobank.gr">www.eurobank.gr</a>
Alpha Bank	256	1879	54684	<a href="http://www.alphabank.gr">www.alphabank.gr</a>
Piraeus Bank	287	1916	46427	<a href="http://www.piraeusbank.gr">www.piraeusbank.gr</a>
Emporiki Bank	439	1907	27324	<a href="http://www.emporiki.gr">www.emporiki.gr</a>
<b>GROUP 2:</b>				
ATE Bank	488	1929	24273	<a href="http://www.atebank.gr">www.atebank.gr</a>
Marfin Egnatia Bank	741	1991	13715	<a href="http://www.marfinbank.gr">www.marfinbank.gr</a>
Hellenic Post Bank (TT)	762	1900	13182	<a href="http://www.ttbank.gr">www.ttbank.gr</a>
General Bank	1552	1937	4335	<a href="http://www.geniki.gr">www.geniki.gr</a>
Attica Bank	1653	1925	3916	<a href="http://www.bankofattica.gr">www.bankofattica.gr</a>
<b>GROUP 3:</b>				
Aspis Bank	1927	1992	2944	<a href="http://www.aspisbank.gr">www.aspisbank.gr</a>
Probank	2037	2001	2862	<a href="http://www.probank.gr">www.probank.gr</a>
Proton Bank	2185	2001	2365	<a href="http://www.proton.gr">www.proton.gr</a>
Panellinia Bank	NA	2001	626	<a href="http://www.panelliniabank.gr">www.panelliniabank.gr</a>
Millennium Bank	NA	2006	3825	<a href="http://www.millenniumbank.gr">www.millenniumbank.gr</a>

**Notes:**

- Source: Bankscope (2008).
- NA: information is not available.

**Table 2 – Statistics: Reach, Traffic and Page views**

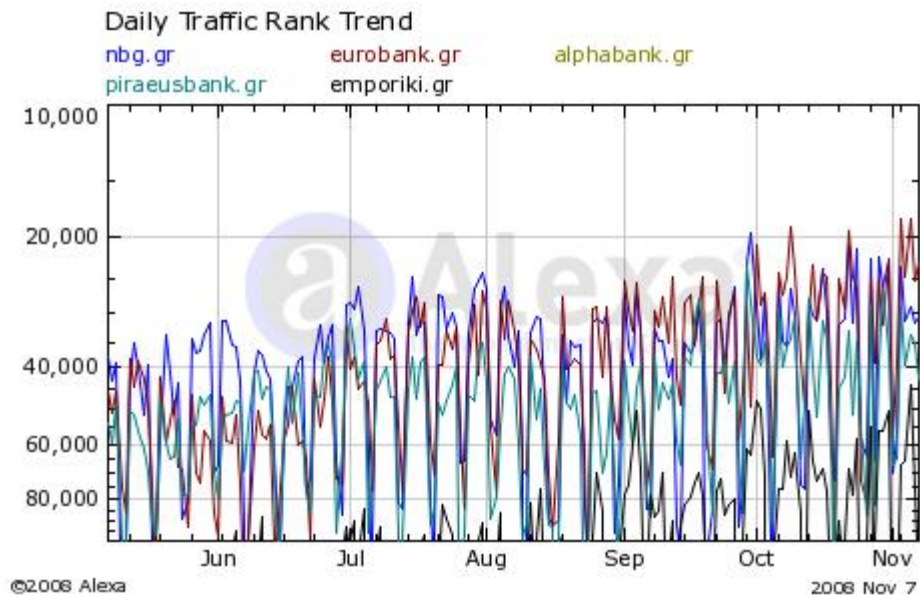
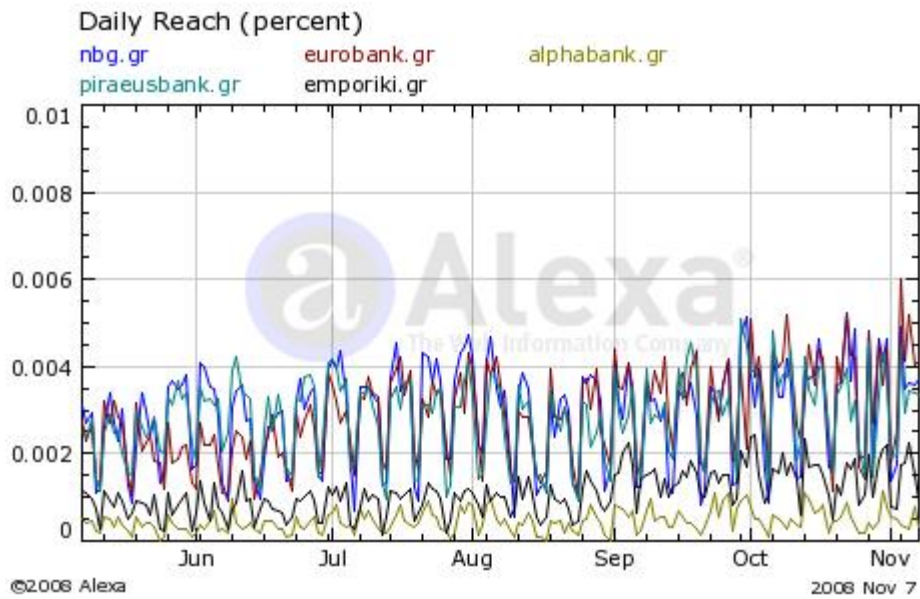
<b>GROUP 1:</b>	REACH (%)	TRAFFIC	PAGE VIEWS (%)
National Bank of Greece	0.00297	37018	3.26
Eurobank	0.00321	33349	3.73
Alpha Bank	0.00049	242677	1.68
Piraeus Bank	0.00292	44648	1.9
Emporiki Bank	0.00134	86037	2.82
<b>GROUP 2:</b>			
ATE Bank	0.00036	261562	3.7
Marfin Egnatia Bank	0.000146	612440	2.8
Hellenic Post Bank (TT)	0.000239	348219	5.1
General Bank	0.000242	410246	2.6
Attica Bank	0.000007	7475439	1
<b>GROUP 3:</b>			
Aspis Bank	0.000176	517967	2.6
Probank	0.000094	623136	14.7
Proton Bank	0.000036	1898978	2
Panellinia Bank	0.000028	2124176	3.2
Millennium Bank	0.00035	273881	3.8

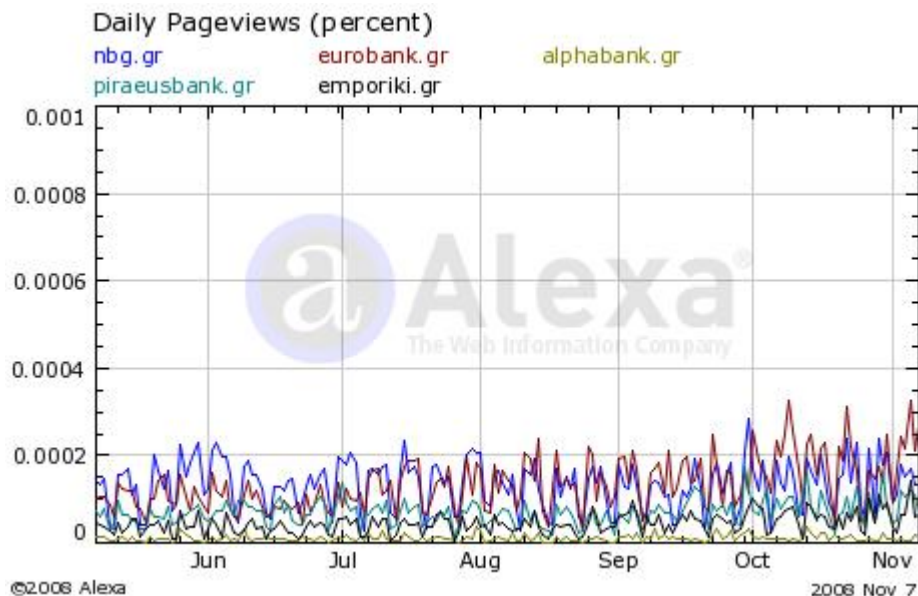
**Notes:**

- Source: Alexa.com
- Reach: Percent of global Internet users who visit this site.
- Traffic: Traffic rank based on a combined measure of page views and users (reach).
- Page views: The number of unique pages viewed per user per day for a given site.
- We report three-month average statistics only.

Figure 1 shows the plots of the above statistics for the largest Greek banks (group 1). It is obvious that top banks show a stable performance over time (i.e. internet users and customers visit their websites regularly). In other words, the “trust” factor among the current users is expected to be quite high. However, the fact that the statistics for Greek banks are low (compared to other developed countries) it means that Greek banks should invest more to improve the quality of their websites (and Internet banking systems). It will increase customer reliability and attract more Internet banking customers.

Figure 1 – IB Website Performance (Group 1)





## SUMMARY AND CONCLUSION

There is no doubt that the revolutionary developments in IT transform the banking industry. E-banking is an important part of this transformation. Electronic banking is the wave of the future. It provides enormous benefits to consumers in terms of ease and cost of transactions, either through Internet, telephone or other electronic delivery channels (Nsouli and Schaechter, 2002).

IB (part of E-banking) is attractive for customers as it makes it possible to conduct banking transactions anytime (24/7) and anywhere, faster and with lower fees compared to using traditional bank branches (Floros and Giordani, 2008a). Furthermore, IB provides banks with a competitive advantage, by improving the quality of customer services and reducing the operational costs.

All of the largest European banks offer Internet banking options for their retail and business customers. In this study we provide evidence on the bank's websites performance from top Greek banks for 2008.

The results show that only large Greek banks (group 1) show high percentage of global Internet users who visit their sites. This is in line with Floros and Giordani (2008b). They report that Greek banks with a large number of ATMs (e.g. National Bank of Greece) are more efficient than those banks with less ATM (Panellinia Bank).

Although top Greek banks show a stable websites performance over time, their statistics are low compared to other European banks. Hence, Greek banks need to follow an investment plan to improve the customer relationship and increase the quality of their banking services over the Internet.

According to Lympelopoulous and Chaniotakis (2004), if Greek banks consider the

Internet as a major channel in their distribution strategy, they should try to exploit all potential ways to promote its use through an effective communication mix. This could go beyond the branch and include advertising and publicity addressed directly to customers in order to boost demand for e-banking services.

Future work should examine the quality and efficiency of the Internet banking services using data from top European banks.

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