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Recommended Citation
Holland, Christopher and Gutierrez-Leefmans, Maria Manuela, "Online Consumer Behaviour and Competitor Performance in the Mexican Bank Market" (2013). *UK Academy for Information Systems Conference Proceedings 2013*. 15.
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Online Consumer Behaviour and Competitor Performance in the Mexican Bank Market

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Abstract

The combination of smarter customers and increased use of the Internet in Mexico means that the Internet is now an important competitive weapon to acquire new customers and also to retain existing customers. Previous research into online strategies in banking has tended to focus on either high-level strategic outcomes or on internal web data that is specific to a particular bank. In this paper, online panel data is used to generate insights into consumer behavior and bank performance in the key areas of share of online search, share of e-service and overall levels of online banking. It is shown that the market leader Banamex is underperforming in the online channel relative to its market share. In contrast, the online attackers HSBC and Scotiabank are very strong in terms of their Internet performance. By distinguishing online activity into two groups, search and e-service, it is shown that smaller banks have an inherent advantage in online markets for customers searching out a new banking relationship – this is termed the 'online attacker advantage'. The theoretical and managerial implications are outlined for the use of panel data generally and the results of the analysis concerning the Mexican banking industry specifically.

Key words: consumer behavior, Internet banking, information search, e-service, online performance

1. Introduction

The financial services industry is highly competitive reflected by lower profitability levels of banks and the willingness of consumers to switch between competing banks and also to use alternative banking facilities offered by non-banks, e.g. retailers. One important area of activity for banks is channel strategy i.e. the use of branch, ATM and Internet to acquire and retain customers. In the context of channel strategy, the Internet has become strategically important because it is a competitive weapon to attract new customers and reduce the cost of serving existing customers. According to McKinsey and Company and the European Financial Management and Marketing Association (EFMA) (2011), the role of the Internet

for information seeking activities and advice is expected to grow significantly over the next few years.

Although consumer behavior has been studied extensively from a variety of theoretical and empirical perspectives, the specific importance of information search behavior in banking has received relatively little empirical attention. According to De et al. (2010), despite the widespread adoption of search technologies on the Internet, empirical research that examines the effect of these technologies is scarce. Marketing managers need to understand how best to use the Internet and an important component of their online strategy is to be able to model and evaluate online consumer behavior. Previous research has tended to focus on internal, click-stream data, e.g. from a bank's web server to study customer development and retention (Meer, 2006). For example, an individual bank such as Barclays can use its own click-stream data from the Barclays web server to analyze the behavior of Barclays' customers only. But click-stream data of this type tells the Barclays managers nothing about the general behavior of online banking customers, in particular their search patterns which involve visits to more than one bank, or the volume of traffic to competing bank websites. It is very important that online marketing managers take a more external, competitive perspective and take full advantage of new information resources such as online panel data.

An important distinction is made between search, sales and e-service in order to be able to evaluate the performance of banks in a more focused and activity-specific manner, i.e. to evaluate Internet banking performance measured by the banks' overall shares of unique visitors, and then to be able to focus in on the two separate activities of consumer online search, and consumer e-service. Online search is a critically important activity in the acquisition of new customers while e-service has an important influence on customer retention. The evaluation of online sales is beyond the scope of this paper because it also involves a range of additional variables such as the value of the offer, branding, website design and other factors involved in the sales process. However, based on other research, there is a clear relationship between share of unique visitors and online sales, and in this case, we wish to focus our research efforts on evaluating online bank performance in online search and e-service, and to explain the significance of this distinction and its implications for online competitive strategy.

The paper provides an overview of the current banking sector in Mexico, and examines the performance of both the market leaders and the smaller banks that are attacking the incumbents. Unlike traditional consumer behavior research which has extensively used surveys as a methodology (e.g. Simon et al., 2010; Vatanasombut et al., 2008; Wan W.W. N. et al., 2005) this study uses online panel data from a commercial source together with secondary data from official resources on the Mexican banking industry to analyze consumer behavior.

2. Literature Review

Channel strategy is a vital component of an integrated marketing strategy in banking, where banks must allocate resources to their branch network, Internet, telephone and ATM channels. Channel strategies can be adjusted and appropriate resource allocated on the basis of an improved understanding of online consumer behavior. The need to measure actual technology usage behavior instead of intention or adoption was already suggested by Guriting and Ndubisi (2006). Either due to further testing required, new developments in technology or need of more focus on factors under study, researchers confirm that contributions in the field are still required (Hernandez et al., 2010; Ha et. al, 2010; Hernandez and Mazzon, 2007). In addition, one could argue that, it is the tools for analyzing consumer behavior that have changed, thanks to the Internet , which allow to do more objective studies now than before. A more recent study that looked at three decades of research on consumer adoption and utilization of electronic banking channels, showed that studies have been done for certain countries in Europe, Asia, America and Middle East with different quantitative and qualitative methods (Hoehle et. al, 2012). However, as suggestion for future research is the use of different conceptual frameworks instead of the traditional ones, as well as different approaches for the research method as some of them according to the authors, have been heavily- or under-utilized.

Buying behavior theories consider purchase decisions to be ‘problem-solving’ processes with multiple stages. Engel et al. (1995) differentiate between five stages in this process: need recognition, search for information and information processing, pre-purchase alternative evaluation, purchase decision and post-purchase evaluation (Engel et al., 2007). This theory has been used successfully to explain consumer behavior. Following Darley (2010), these five stages are the most widely accepted, as evidenced in a majority of consumer behavior

textbooks (Engel et al., 2007; Solomon, 2006). However, it lacks the metrics that allow measuring the specific click-stream behavior if we want to do a quantitative analysis based on web server logs. This is why other authors have incorporated estimates of measurements for online performance for each stage of the decision making process. In the case of Latin America, Brazil is the country where a great number of studies have been undertaken (Hoehle et al., 2012). However, that is not the case of Mexico, currently the second largest economy in the region, which is the focus of this study.

2.1 Online Consumer Behaviour

Online consumer behavior models have incorporated website features, together with consumer skills, attitudes towards online purchasing and perceptions about control to traditional consumer behavior models (Laudon and Traver, 2007) while others have simplified to a three stage phase model (Rafi et al., 2001) based on the pre-purchase, purchase and post-purchase stages of the decision buying process with the use of click-stream data.

In addition, while demographics such as gender and age have been extensively used for consumer behavior studies, some authors believe instead that the most important predictors of online consumer behavior are the session characteristics and the click-stream behavior of users very close to the moment of purchase (Chaffey et al., 2006).The limitations on click-stream data have been addressed claiming that in all studies done there may be an over or under-count of visitors that could generate bias on the data. However, those errors do not detract from their value of this type of data to compare how competing banks perform relative to each other. Consumer behavior studies on Internet banking have not clearly distinguished among online services provided by a bank for the use of customers such as daily transactions (e-service) and online search activity conducted by potential customers.

2.2 Online performance

The value of making a distinction between e-service and search is relevant to measure online performance in relation to market share, hence, in a competitive content. According to an Internet banking survey from McKinsey Quarterly (2011), a full quarter of respondents did

not know what share of their customers currently use online banking. Even for banks who do count with this measure, an additional report from McKinsey and Company and the European Financial Management and Marketing Association (EFMA) (2011) reveals a fast-moving European retail-banking sector with some players already encouraging the multi-channel route while others are just starting. Such reports confirm that customers increasingly use face-to-face channels for sales and advice, and remote ones (the Internet and ATMs) for most transactions with differences at a country and product level, and during different phases of a product purchase. These phases include information seeking, receiving advice, product purchasing and post-purchase support.

In the case of Mexico Internet penetration is still low however, increasing at important rates e.g.14% from 2010 to 2011 (AMIPCI, 2011). According to AMIPCI (Mexican Internet Association), the number of Internet users reached 40.6 million in 2011. The country has 112 million inhabitants (INEGI, 2011) and Internet penetration is therefore 36%. If we look in more detail at specific online activity, recent survey data from AMIPCI (2011) are presented in Figure 1.

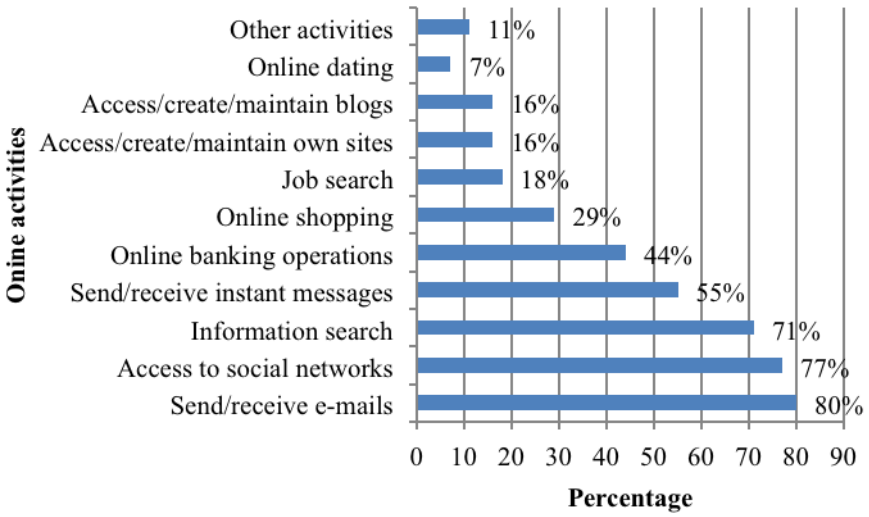

Fig. 1 Habits of Internet users in Mexico. Source: Habits of Internet users in Mexico, AMIPCI, May 2012

The study showed that information search represents 71% of the main online activities in the country as reflected in Figure 1. Online banking represents 44% of Internet users who have conducted some form of Internet banking activity. This can include having printed an account statement or made a transfer between accounts. However, as users make use of other facilities

to conduct transactions as doing a payment through online intermediaries, the use of Internet banking through the bank's website can be inconstant.

Figure 2 presents data specifically on online usage in the Mexican banking industry.

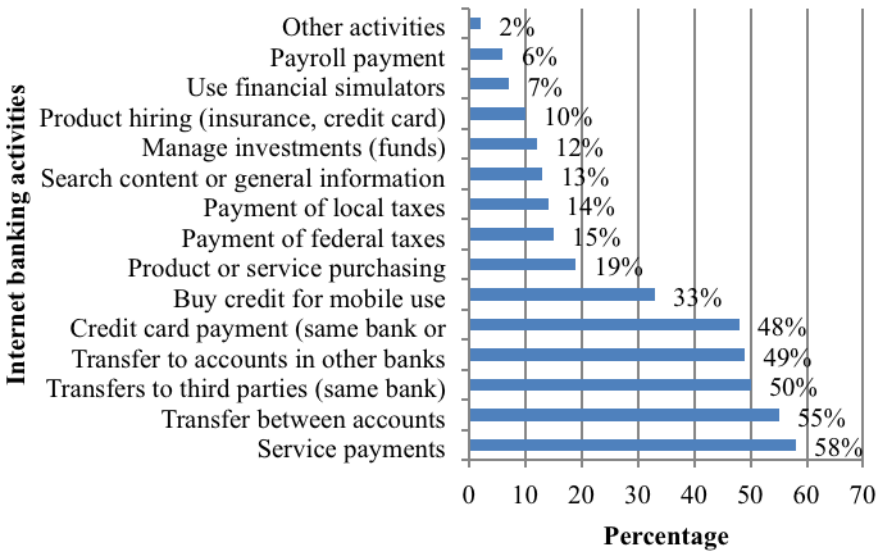

Fig. 2 Internet banking activities in Mexico. Source: Online Banking, AMIPCI, May 2012

Money transfers between accounts represent 55% of Internet banking activities and service payments 58%. Such e-service activities refer to people who already have an account. The importance of search is demonstrated by the 13% of people who are searching for content or general information. In addition, 19% of online consumers used the Internet to purchase a product or service and this will include a significant search component.

The above survey data is very useful in gaining an overview of the general use of the Internet in Mexico, and in particular the relative size of specific online activities. It also confirms the importance of online banking and also that of online search in finding out about potential new suppliers. However, it does not tell us anything about the detailed search and e-service behavior of online customers and for this we have used online panel data, which is discussed in the next section.

3. Research Methodology

Goodhart and Ehrenberg (1967) used panel data to conduct a 'conditional trend analysis' for examining stationary and non-stationary data on consumer purchases of different products. With the use of panel data, actual distributions of consumer purchases helped them verify predicted behavior. Other applications identified by these authors were for brand duplication and brand switching analysis. The power of panel data is that it gives us detailed insights about actual consumer behaviour, rather than reported behaviour of historical actions or intended future behaviour. Online panel data is very reliable because the data capture process is automatic and is based on relatively large sample sizes when compared to traditional surveys.

Online panel data is based on a sample panel of Internet users whose behaviour is tracked automatically through the use of a specialist piece of software that is installed onto their machines. The detailed online usage and habits of the online panel sample is then projected onto the general Internet population. ComScore Inc. has a global infrastructure established through a 2 million person panel, approximately one million in the U.S. and one million overseas, which makes it a world leader in online digital marketing intelligence (ComScore, 2012). The analysis of such data can be used to gain an overview of online customer behaviour across a market and therefore yields different insights than would otherwise be possible using more conventional research techniques. The data used in this study considers a projected total of 25.5 million Mexican Internet users. The sample excludes public computers such as Internet cafes, and also access from mobile phones or PDAs (ComScore, 2012).

Additional, general bank market information was collected from surveys conducted by the National Council of Banking and Securities in Mexico (CNBV). Government surveys of this type present data in a clearly defined manner, which is well documented and of high quality (Saunders et al., 2000).

Regarding the data analysis process, according to Wolcott (1994), it should follow the iterative cycle of description, analysis and interpretation. This is the cycle the data analysis in this study followed. After description we then move to analysis and interpretation by calculating ratios among a certain indicator according to the bank size in terms of market share to measure the banks' performance.

3.1 Research framework

This research presents a novel research methodology by the introduction of online panel data. In consequence, the strategy framework suggested presents a different way of looking at channel strategies based on the use of panel data as metrics which could fit different service industries. Figure 3 represents the framework summarizing the banks' channel strategies using either branches, Automated Teller Machines (ATMs) and Internet.

The branch and ATM distribution capabilities are measured using standard, Government surveys, coupled with data from a range of bank sources. To distinguish between search and e-service, an assumption is made that online customers who visit one website only are primarily concerned with e-banking, i.e. e-service. Those customers researching two or more banks are conducting online search. Search can be measured through duplicated visiting and cross-visiting reports. As consumers move from one site to another, their behavior tells us the level of search. This information is relevant for advertising purposes as marketers can detect audiences for campaigns and the right message to address to them. In the case of e-service, there are significant implications for website design. Finally, the purchase activity defines the point of sale and this is excluded from our analysis.

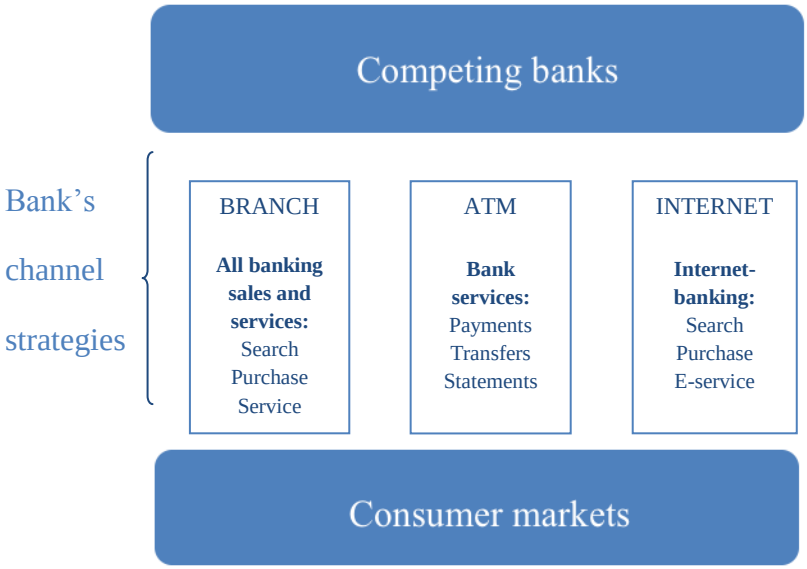

Figure 3. Research framework

Banks have multi-channel strategies to acquire and retain customers. The traditional branch channel has been used for all aspects of the consumer journey. It is important for customer acquisition because it provides an environment for consumers to find out information about bank products and deal directly with a bank sales representative. A good sales person has the advantage of being better at sales conversion, and the disadvantage of being more expensive than the online channel. The bank branch is also important for the delivery of bank services to existing customers, although visits to bank branches from existing customers is in decline, largely because of the increased use of the Internet for e-banking. The ATM channel offers a wide range of bank services, e.g. payments, money transfers and banking statements are all offered through ATM networks to existing customers. ATM networks are therefore important in terms of customer convenience, customer service and customer retention.

The Internet channel can be used in all the stages of the customer journey. It is used for online search of information or products, the online purchase and for e-services. The use of the Internet channel for both customer acquisition and retention is even more important due to its easy access, convenience and reach in comparison with the branch channel. Banks are therefore starting to invest much more effort into their online channels and it is important from a research perspective to develop new methods and frameworks to evaluate the relative performance of competing banks in the online channel.

According to Porter (2004), industry leaders usually enjoy some advantages in defending themselves from competition, such as reputation, economies of scale, cumulative learning, and preferred access to suppliers or channels. An important research question in this respect is whether they also enjoy these advantages in the online channel versus the smaller attacking banks.

3.2 Data framework

Table 1 summarizes and defines the different Internet variables used for the data analysis.

Variables	Definition
Unique visitors	The number of unique visitors in a three-month time period. This is a measure of the overall level of Internet banking for each competitor. Source: ComScore, 3-monthly unique visitor report
E-service	The number of online customers that visit one bank website only, measured for each competitor. Source: ComScore, Unduplicated audience report
Online search	Number of online customers that visit two or more bank websites, measured for each competitor. Source: ComScore, Duplicated audience and cross-visiting reports

Table 1. Data framework

The above variables can be measured in absolute numbers, e.g. bank A attracts two million unique visitors to its website. However, when exploring the relative performance of banks in a competitive context, it is necessary to use ratios that remove the effect of bank size. For example, to evaluate the performance of a bank in the online channel, its share of unique visitors relative to its market share is used in order to be able to make direct comparisons between different sized banks.

4. Data analysis

Six major banks dominate the market and together account for 83% of the retail bank market in Mexico (CNBV, 2012). Banorte is the only domestic competitor. All of the other banks are part of foreign owned banking groups. The banks offer a wide range of financial services to business, corporate and retail customers. Retail products include mortgages, personal loans, credit and debit cards, current and savings accounts, domestic and international payments, and investments.

Banamex is owned by Citigroup and is the market leader measured by the number of current accounts, which is generally considered to be the most reliable method of measuring market share in the retail market, because the current account is the 'anchor' product in retail banking. Bancomer is part of the Spanish bank BBVA. Banorte is the largest of the attacking group of banks, followed by the Mexican unit of the Spanish bank Santander and the

subsidiary of HSBC Latin America Holdings (UK) Limited. The smallest bank in the study group is Scotiabank. Details on total number of current accounts can be found on Figure 4 together with the market share of each bank.

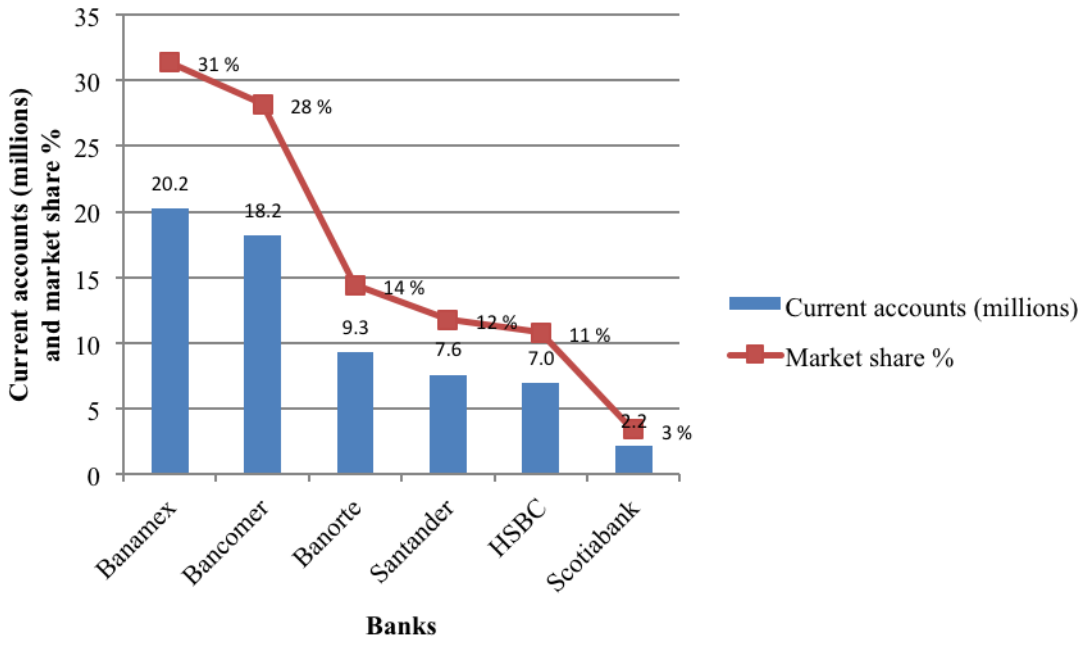

Figure 4. Total number of current accounts (millions) and market share percentage. Source: Banks' Annual and 4Q Reports, 2011

Foreign bank participation for the last six years in the Mexican system, together with the regulatory framework has encouraged banks to expand their marketing activities through the use of multi-channel strategies where the Internet is playing an increasingly important role.

4.1 Overall online performance in Internet banking

Table 2 shows the share of unique visitors and relates it to market share, i.e. a bank's share of current accounts overall. Market share is measured in terms of current accounts as we believe they are the best indicator for market share not only because the accounts are part of the product sales accounted for by each bank, but because it is considered as the anchor product because of its daily use for payment and deposit transactions.

The online / market ratio represents the relation among market share and unique visitors share. This analysis takes out the effect of bank size from online performance. This is done in order to compare the online performance among banks under the same basis. A ratio equal to 1.0 means that the bank's online performance is in line with its market share, i.e. its share of

unique visitors matches its share of bank customers. An online to market ratio lower than 1.0 indicates that a bank is underperforming in the online channel relative to its size, and conversely a ratio above 1.0 indicates over-performance.

	Market share %	Unique visitors share %	Online / Market ratio
Banamex	31	29	**0.9**
Bancomer	28	27	**1.0**
Banorte	14	13	**0.9**
Santander	12	11	**0.9**
HSBC	11	15	**1.3**
Scotiabank	3	3	**1.5**

Table 2. Online / Market ratio. Source: Derived from Key Measures report, ComScore, 2011 and Boletín Estadístico Banca Multiple, CNBV, 2012

The market leader Banamex is slightly underperforming in the online channel whereas its nearest competitor, Bancomer, matches its market position. Of the attackers, Banorte and Santander are slightly underperforming in the online channel. In contrast, HSBC and Scotiabank are significantly over-performing. A similar analysis has been performed to evaluate the banks' performances in the branch and ATM channels and the results for all channels are shown in Table 3. This data gives a much more comprehensive view of the overall performance of the banks' distribution strategies.

	Branch/ Market ratio	ATM / Market ratio	Online / Market ratio
Banamex	0.7	0.6	0.9
Bancomer	0.9	0.9	1.0
Banorte	1.1	1.1	0.9
Santander	1.2	1.2	0.9
HSBC	1.3	1.7	1.3
Scotiabank	2.9	1.6	1.5

Table 3. Performance ratios. Source: Derived from Key Measures report, ComScore, 2011 and Boletín Estadístico Banca Multiple CNBV, 2012

Banamex, the market leader, is significantly underperforming in the branch and ATM channels and is also underperforming in its online channel. The second largest bank in the country, Bancomer, is slightly underperforming in its branch and ATM channels and its Internet performance is in line with its market share.

Banorte is slightly over-performing in the branch and ATM channels and slightly underperforming in the online channel. Santander is strong in the branch and ATM channels and similar to Banorte, is underperforming in the online channel. HSBC is an interesting case as it is significantly over-performing in all three channels. HSBC is therefore pursuing an aggressive growth strategy. The case of Scotiabank is similar to HSBC as results indicate a significant over-performance in all channels. This indicates an attacker strategy trying to expand. A very high branch ratio shows how the bank is being aggressive trying to strengthen its physical presence in the market.

In conclusion, there are significant differences in the profile of the channel strategy performance for each bank, and this starts to give us insights into how they are likely to perform and how they are allocating their marketing expenditure. Of the two market leaders, Banamex is underperforming and therefore will lose market share if all conditions remain the same while Bancomer is likely to defend its position more effectively than Banamex. In contrast, HSBC and Scotiabank, the attackers' or smaller banks' over-performance in all channels means that they will gain market share, ceteris paribus.

4.2 Online search and E-service

Under the assumption that visiting one website represents e-service, that is, consumers who repeatedly visit the website to conduct a transaction; visiting 2 or more websites represents search activity where the user is concerned with finding different information on a product or service. The third activity not part of this research that users perform along the consumer journey is the actual purchase which takes place before the e-service. Table 4 indicates the total unique visitors in thousands of all the bank audiences split by e-service and search activities.

	Total Unique Visitors (000)
Total audience	2,956
E-service – 1 site only	2,328
Search - 2 or More Sites	628
Search - All Sites	3

Table 4. Cross-visiting audience (thousands). Source: Audience duplication report, ComScore, December 2011

The number of online users conducting e-service is therefore 2.3 million and 628 thousand users are performing online research into two or more banks. Hence, 73% of total unique visitors visited one site only. This ratio of e-service to overall use of the online channel is consistent with earlier research conducted in the UK and Germany. It can also be seen that just 1% of total unique visitors used all six websites. The majority of online bank use is therefore for e-service. However, a significant proportion of online users, around 20%, also conduct search across two or more banks. This is where the online competition takes places and this is an important measure of the intensity of online competition.

The total number of online bank users reported by ComScore is lower than the number of people who said that they had ever used some form of online banking operation reported by the AMPCI survey data. However, the AMPCI data reported on whether consumers had *ever* used the service, even if only once, at any point in the past. It also included any type of online bank operation. The panel data used in this survey reflects the online banking activity of consumers who used the six major banks only and was conducted over a specific three month time period.

Cross-visiting data reveals details of how users search on multiple websites, that is, the amount of search they do and how they switch from one bank website to another when conducting such search. By combining cross-visiting data with non-duplicated visits, it is possible to distinguish between e-service and online search. Table 5 shows the share of search and share of e-service for each bank, and relates this to market share to create online performance measures of search and e-service that are independent of bank size.

	Market share %	Share of search %	Search / Market ratio %	Share of e-service %	E-service / Market ratio %
Banamex	31	25	**0.8**	35	**1.1**
Bancomer	28	23	**0.8**	32	**1.2**
Banorte	14	15	**1.1**	10	**0.7**
Santander	12	14	**1.2**	7	**0.6**
HSBC	11	16	**1.5**	13	**1.2**
Scotiabank	3	7	**1.9**	3	**0.8**

Table 5. E-service and search shares per bank including Search and E-service / Market ratios. Source: Derived from Cross visiting report, ComScore, December 2011

It can be seen that the search to market share ratio is significantly lower for the market leaders Banamex and Bancomer. The mid-sized banks Banorte and Santander enjoy a small advantage in online search. HSBC and Scotiabank have a significant advantage in search, relative to their market size. For e-service, the position is reversed. The market leaders have a significant advantage. Only HSBC outperforms in both search and e-service, and this is also reflected by its very strong position in terms of its overall share of unique visitors shown in Table 2.

Although larger banks have more cross visitors in absolute numbers, the smaller banks have a higher share of cross visitors relative to their market share than the large banks. The reason that smaller banks have an advantage in online search is that a higher proportion of their overall visitors are 'searchers', i.e. looking at two or more bank websites. Figure 5 illustrates the composition of each bank's audience split into e-service and search.

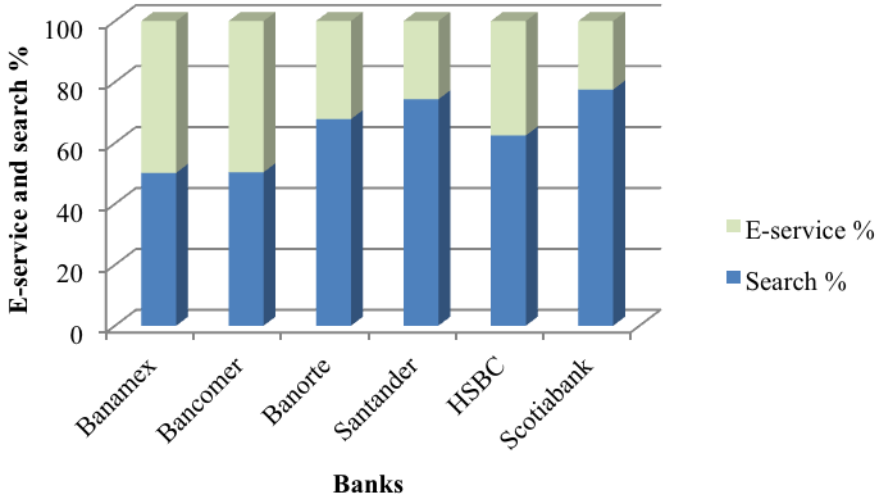

Figure 5. Composition of online activity split into e-service and search by bank. Source: Cross visiting report, ComScore, December 2011

The results in Table 5 demonstrate clearly that the smaller banks have an inherent advantage in the online channel where customers are searching out a new bank relationship. This is termed the 'online attacker advantage'. The statistical strength of the relationship between bank size and share of online searchers / market share ratio is shown in Figure 6.

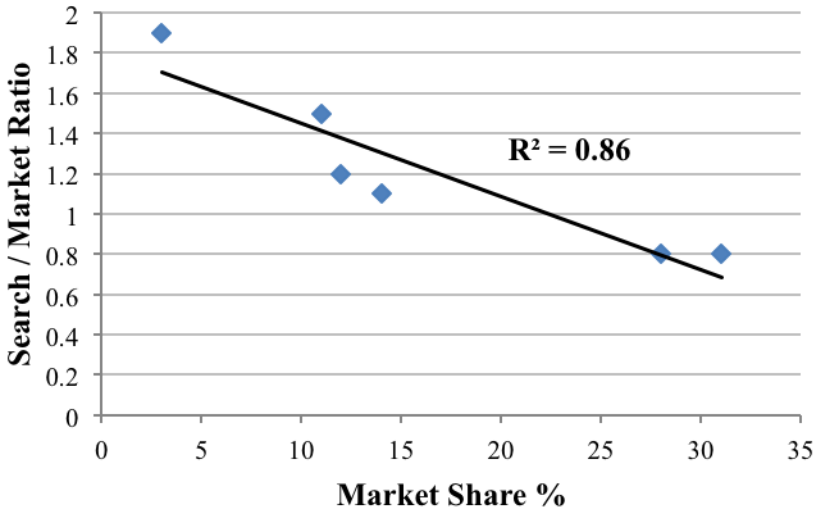

Figure 6. Market share versus Search / Market ratio relationship. Source: Derived from cross-visiting report, ComScore, December 2011 and Bank market share data.

The lower the market share, the higher the share of search in relation to market share. This means that smaller banks have an inherent competitive advantage in the online channel. The online attacker advantage is partly a function of search behavior in a concentrated market. That is, market attackers are inherently more likely to be included in the online search process relative to their size than the market leader. A specific characteristic of the Mexican consumer market could also be reflected here. Due to security concerns, consumers diversify their banking operations and have accounts in different banks. The regulations mean that the banks charge a fee if a deposit higher than 15,000 pesos ($1,138 USD) is made, according to the cash deposit tax law (SAT, 2012). However, this means leaders are vulnerable and attackers have an advantage over the incumbent banks. According to Porter (2004), 'reconfiguration' allows a challenger to compete differently though it is competing with the same scope of activities as the leader. Specifically, it is the 'downstream reconfiguration', where employing channels neglected by the leader or preemptively concentrating on emerging channels serves as avenues to attack against industry leaders.

5. Discussion and Conclusions

It has been demonstrated that online panel data can be used to generate insights into online consumer behavior and online competitive performance by individual banks that would be very difficult and expensive using conventional research methods such as surveys. The combination of online panel data with additional data on channel strategy and market share places the Internet performance within the broader context of market strategy.

The research and data frameworks proposed guided the definition and also interpretation of online performance data, specifically in terms of how to analyze unique visitors, online search and e-service activities. By examining the data in terms of percentage shares, e.g. share of unique visitors, it made it possible to evaluate online performance that removed the effects of size. For example the ratio share of unique visitors divided by market share gives a powerful measure of a bank's online performance where a score above 1.0 represents a high performance relative to market share, a score of 1.0 represents online performance that matches market share, and a score of less than 1.0 represents underperformance in the online channel. These measures are all within a competitive strategy context, and the performance measure removes the effect of bank size.

5.1 Managerial implications

Based on the analysis, some managerial implications can be developed. Despite the efforts of the banks and Government policy, the country is still at an early stage of online banking usage. However, some interesting results can be observed. The smaller banks are performing well in the online channel relative to the market leaders. Small banks have a particular advantage in terms of their share of customers looking to switch banks or set up a new banking relationship for the first time. In Mexico, the small banks are also aggressive in terms of their share of ATM and branch networks. In this case it is therefore reasonable to predict that the smaller banks will gain market share at the expense of the market leaders, *ceteris paribus*.

The use of panel data enabled the researchers to distinguish between online search and e-service and it has been shown that these variables are important indicators of online performance. The results have important managerial implications. The market leaders need to develop strategies that mitigate the online attacker advantage in search, and fully exploit their use of e-service to retain existing customers. The online attackers need to ensure that they convert as many searchers to customers through the use of compelling offers and well-designed websites.

5.2 Limitations

A limitation of the panel data used is the exclusion of online visitors from public computers. While studying only visitors who have a computer either at home or at work, only people with a certain level of education and resources in the country are considered and the results could therefore be biased in favor of the included groups. However, there is no reason to think that those excluded behave in a fundamentally different manner to those studied.

5.3 Future work

Looking ahead, the research could be developed in a number of directions. An international comparison could be done by analyzing data from a developed country in order to see if there are any significant differences between a developing country and markets like the US, Germany and UK. Does the online attacker advantage hold true in all markets? Are there different kinds of online defensive strategies in developed markets? Additional research

should also be conducted into the effects of increased use of mobile devices, in particular smart-phones.

Further insights into the interpretation of the quantitative online panel data could be gained through detailed qualitative research with a sample of online bank use in Mexico. This would generate insights that could explain some of the behavioral patterns observed in this study.

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