

Internet Banking Channel, A Case For Comprehensive Usage – A Retail / Consumer Banking View

In our journey of 21st Century, World Wide Web has complemented us in multiple ways in which we communicate, perform transactions, and socialize with the world and so on. Banking habits of people are substantially changing every day with a host of self-service gadgets enhanced by the improvement in infrastructure, bandwidth, and processing capabilities. Internet Banking (can be equivocally described as Online Banking) has been transformed from being a mere static Web site to a self-reliant channel competent enough to derive independent revenue, process operations over complete lifecycle and service customer holistically while complementing other channels, efficiently supporting the blend of offline and online proposition.

This paper discusses a “case for comprehensive utilization” in line with the global trends of adopting a completely-evolved Internet Banking channel. In addition, this paper gives a glimpse on how some of the leading banks and financial institutions across the globe make effective use of the Internet Banking channel to garner impressive results. In fact, our observation leads us to the conclusion that most of banks across the globe predominantly use Internet Banking channel for cost reduction or revenue growth; whereas very few banks seem to adopt this channel comprehensively, and that is true even for some of the banks with direct platform.

About the Author

Shripad Vaidya

Shripad Vaidya is a Banking specialist from the Banking Domain Group of Tata Consultancy Services (TCS) and has over twenty years of experience in the Banking and Financial Services sector. He was instrumental in creating the evaluation criteria for judging the "Best Global Internet Banks" for a leading global business magazine and has led the TCS team for 3 years from 2004 to 2007 to shortlist the finalists from the list of participant banks for this contest. Shripad is a Fellow Chartered Accountant and a Master of Commerce.

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Introduction

From a traditional high street branch to a new generation RFID enabled branch, banking has come a long way. Conceptually, banking transactions have been in existence since the era when trade and commerce transactions were initiated. However industrialization era of the 19th and 20th century has brought a profound transformation encompassing multiple dimensions in which, businesses and individuals would bank. But nothing has been as revolutionary as e-commerce with induction of the web. Within less than two decades since the introduction of the web for commercial operations, Internet Banking channel has come a long way.

In its early stages, banks used Internet for unidirectional communication such as for publishing the offerings and corporate data of the bank. Also, at this stage, Internet Banking was merely an additional channel of information source for general public and customer. This was followed by providing basic transactions on internet such as “View current account balance, pay utility bills online, transfer funds” amongst others. While Internet Banking was undergoing a transformation on the contents, parallel developments in telecommunication, infrastructure, and requisite software helped to enhance the capabilities of this channel extensively.

From a status of being complementary channel of conducting basic transactions, Internet Banking has come a long way and now it is being recognized as “a self-reliant channel capable of conducting banking independently and posing as a strong complementary channel in a multi-channel integration era”. Bankers and technocrats of the world are pushing the Internet Banking channel to be more flexible, customized according to customer needs, addressing the customer needs in line with their goals, enhancing captive revenues, and improving designs and contents to radically improve customer experience. Multiple technologies such Web 2.0, STP, Imaging or Truncation are helping the banks to service customers as well as innovate the “Web Real Estate”.

With every such enhancement, banks are aggressively improving customer experience in terms of depth, breadth, technology innovations, customization, front-office and back office integration. However, security threat is a deterrent in the minds of customer as well as the banks. It would need an industry-wide initiative to counter the threat. Multi-factor authentications and relentless efforts of establishing creative secured deployments are being tested rigorously across the globe. Needless to say, no amount of precaution and innovations for security aspects is enough for restricting evils by anti-social elements. Security is always a challenging task for a banking and technology community.

Transition of Web Based Banking Over Time Horizon

As seen in the introduction; use of internet has been evolutionary within the banking world. From a period of unidirectional static websites, Internet Banking has taken a new shape in terms of bi-directional and interactive Web Real Estate in which the prospect or a customer is informed, communicated, involved, listened, suggested, recommended and serviced. Today, while customers get services from any channels of their “choice, need and convenience”; e-banking complements in-tandem with other channels or it can provide independent service.

The current generation internet banking channel aims towards “enhancing customer experience” as a key objective in their vision to keep in pace with the new era of multi-channel deliveries. In fact, currently banks identify “customer” as a focal point and various channels such as Branch, ATM, Telephone, Internet, Mobile, Kiosk and others as more of servicing locations.

Therefore, the customer relations is not channel centric, but relatively “customer-centric and channel agnostic”. Channels such as branch, internet, kiosk, telephone and others have to be strong enough to service, but also enable creation of new customer segment and service multiple segments. With these principles, a customer is no longer only a branch generated customer, or internet-based customer, but is a subject-matter of all the banking organization across multi-channels.

This principle enables banks to service various customers across regions, channels, and segments. In addition it provides an opportunity to the bank to cross-sale and up-scale the products and services across multiple business segments and operating units. Figure 1 explains the way Internet Banking world has moved in various phases.

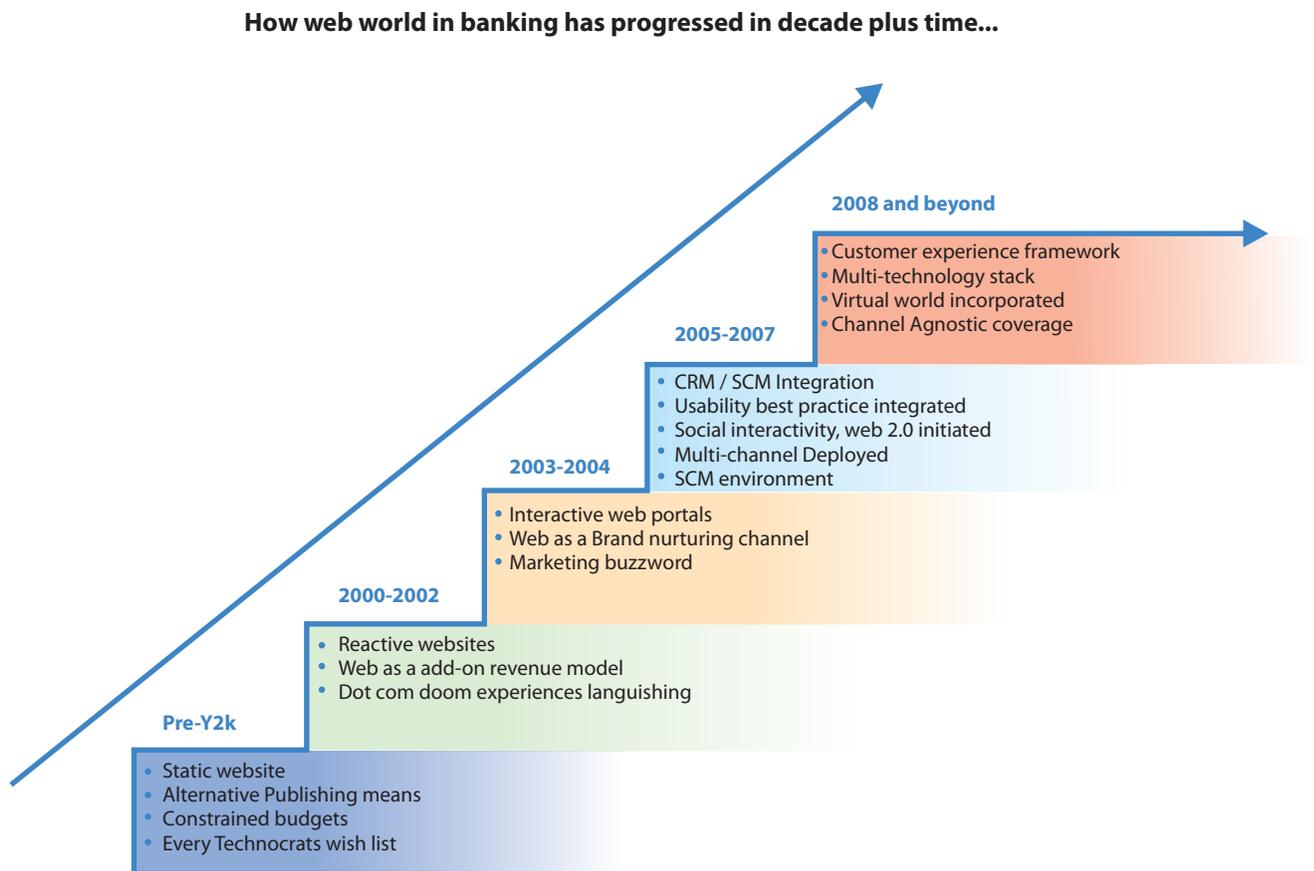


Figure1: Phases in Internet Banking World

Figure 2 explains the evolution of the strong Internet Banking channel from mere static view in initial “Establish” stage to initiating transaction at “Nurture” stage followed by highly automated multi-channel integrated offering in “Complement” stage and then achieving the status of Self-dependency in “Evolve” stage while continuing to complement the other channels in a bank. Here at “Evolve” stage one can draw parallel to the banks achieving “comprehensive utilization”; however only actual assessment can depict whether the channel has been comprehensively utilized or not.

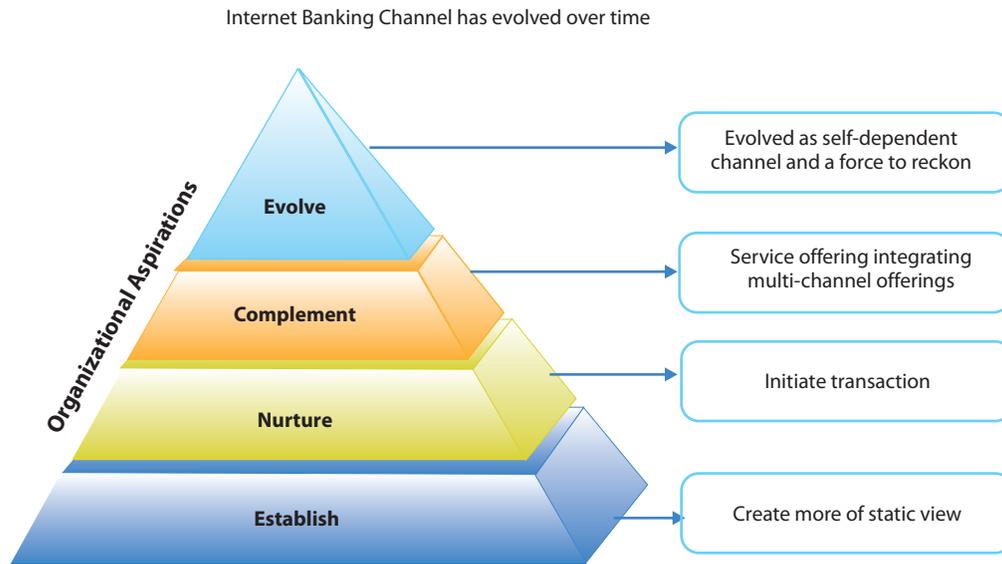


Figure 2 : Evolution of Internet Banking Channel across Time

“Internet Only” Banks and Direct Platform

While dot-com era gave rise to a new generation of “Internet Only” banks, creation of independent “Direct Platform” as an alternative to traditional “Click and Mortar culture” is being incrementally experimented by many of the existing banks. While “Internet only” banks have found a mixed response in terms of brand recognition and customer connect; some of the existing banks have successfully created the Direct Platform while cashing on their established brands. However, Direct platforms is still evolving and will find incremental favors across various countries subject to advancement of e-security laws, national and local infrastructure, ability of the bank to make long term investment, banking habits of people across different continents, level of internet penetration, level of internet banking usage, gender / generation driven patterns to connect with virtual world and others . Therefore, the advantages of fully-blown direct platform will run in parallel to the transformation in banking sector, where Banks will transit from a mere traditional “may-I-help-you” doctrine to new generation banks, proactively identifying the niche strengths and create “specialized servicing” era while they identify their brand perception, focus market segments, niche customer segments, underline servicing strengths and couple it with technology advancements.

Goals of the Internet Banking Channel and Transformation Journey

Goals of Internet-banking sites are much different today than a decade ago. Following is the summary of what Internet Banking sites should aim to achieve today:

- Improve market share
- Enable independent revenue generation
- Complement revenue generation with other channels
- Ensure customer retention
- Improve customer experience
- Provide new avenues and never touched offerings
- Build a brand, nurture and enhance it.
- Provide offline to online migration (need based)
- Ensure cost reduction
- Provide cross-sale
- Complement multi-channel deployment

In fact, Internet Banking today is being incrementally seen as vital e-real estate for a bank and not just must-have URL location to stay in the competition. Therefore it demands a 360 degree assessment of space, contents, services, return on investment (ROI), and customer experience among others.

Post global financial turmoil in 2008, banks across the world have taken various initiatives to achieve growth of the top line, restricting customer attrition, growth of bottom-line by extensive cost containment and rationalization, and improvement in operational efficiency. Internet Banking is a key channel for addressing various factors for sustaining the growth or helping a bank to retain its dwindling numbers.

However at this post-turmoil era, introspection by various stakeholders of Internet Banking channel is needed to radically improvise the comprehensive utilization of this channel from both, strategic as well tactical view. Many banks across the globe are increasingly attempting to culturally shift from Internally-focused enhancements to value-driven and proactive market-driven externally focused strategies. Every bank need to introspect whether goals similar to those mentioned in this section above have been thoroughly reviewed in their channel strategy, while mapping to their overall organizational objectives.

Figure 3 displays the “e-banking real estate”, which would be designed to achieve following objectives in a transformation journey extending on the goals defined in the figure:

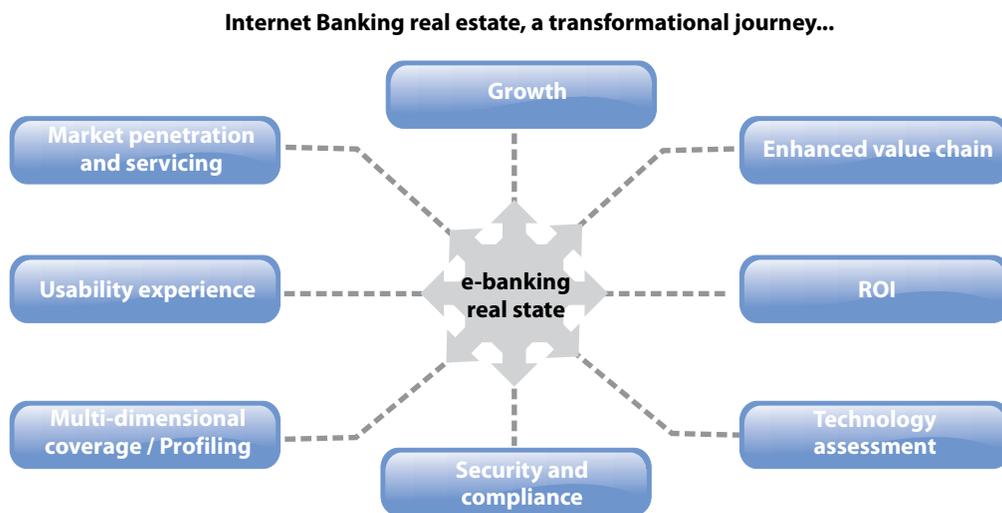


Figure 3: e-Banking Real Estate

- **Growth:** Internet Banking is a vital growth driver for any banking organization. However, in the recent market turmoil it is necessary to design products and services, which will counter competition, connect with the customer, and restructure the offerings to which customer can connect very easily. Some of the banks have used internet as a channel to grow new customer segments. For example, new cross-border fund transfer online offerings developed by a bank to target specific customer segment of foreign nationals who frequently transfer funds to their home country or other example can be of bank's collaborating with social networks to target new customer segment who can be prospective e-tailers using Internet Banking channels.
- **Enhanced value chain:** As the internet banking has been merely extension of the traditional banking for most of the banks, only front-end aspects of the services have been provided by some of the banks. Therefore, the post-transaction service is not handled effectively or it is not provided in the near real-time scenario. For example, some banks do not offer entire transaction service on the internet and leave the rest to be handled by call center / branches. In the case of online broking blended with online banking, many banks offer only order placement and confirmation on real time; but for the rest of the transactions absence of sacrosanct STP delay the other legs of the transaction. However, some of the leading banks (especially those with a direct platform) would like to achieve everything in "Just-in-time" or "at a real time", as applicable for each case.
Therefore, banks have to aggressively try and enhance customer experience through:
 - a. Comprehensive STP at the back-end, complementing the front end efficiencies
 - b. Covering entire life cycle of a transaction.
- **Market penetration and servicing:** In a comprehensive use of web real estate, banks should be made to target the entire value-chain holistically. For example, at the initial stage where a prospect or even a mainstream visitor visits the website; attempts can be made to engage and draw the attention to the visitor-desired location and create a bi-directional path for the visitor with an intension that after the visitor returns back, he can easily connect with the contents that he was previously looking at. This effort can be backed by the sales force automations within the banking organization, while marketers try to convert the visitor as an opportunity and finally gain him as a customer. After he becomes a customer, banks can try to create a hand-off process suitable for the customer. Meanwhile, the relation management process is continued. The cross-sell and up-sell is the key to involve the visitor through his journey in the other offerings of the bank, not experienced by the visitor before.

While all such marketing attempts are made, personal relationships are paramount and banks should ensure that they have parallel force working within the organization to connect the prospective-customer through comprehensive channels and develop personal relationships depending on the customer's profile.

- Usability experience: - From the "establish" stage of a unidirectional websites (as described in Figure 2), which merely listed products, services, "about us" information; web sites have moved to developing the real estate with a meaningful categorization in the ensuing stages.

This was followed by the persona represented designs, which would help the visitor to establish identity based on the probable goals of the visitor's usage.

To take a simple example, some of the banks enable user navigation driven by probable goals of the individual such as "buy a house" or "education" or "plan a retirement" as against simply listing category names such as "personal products", "Loan products", "Saving Products". Such goal based paths have given a good response from the customer as it is easier to connect with the bank. Banks should continuously improve the usability experience while listening to the customers, studying his profile and needs, encouraging his participation in the process. Therefore designing the website using scenario designs (reference by Forrester Research Inc) has been useful for some banks, where web developers can visualize the profile and need of a customer who is trying to conduct a transaction or open an account using Internet Banking.

In the recent period, use of various widgets incorporated within web 2.0 enriched by Rich Internet Application (RIA) has established improved customization, optimized use of the real estate and enabled visitor or customer to associate with the "overall browsing experience" (and not just "Internet Banking experience"). Similarly leading banks have initiated to offer flexibility to the customers to choose or draw the relevant "look and feel", contents, structure and other features of their "Browsing experience" using RIA. The newer generation banking websites are enabling the user to stay put with the banking activity while the user continues to visit Google and connect with his accomplice through face book and also sets the own calendar for his payment schedule in a collaboration framework using widgets adopted in web 2.0 environment.

RIA experience is not only about transactional convenience, but can also help user to analyze the voluminous data dynamically. For example, if a customer is about to trade in Microsoft stocks, he gets a six month "High-Low-Open-Close" data of Microsoft scrip in a glance dynamically and with relevant graphics- immediately when he moves cursor near the scrip name "Microsoft". In a non-RIA environment it would take much large efforts and cost to present the depth of data from multiple dimensions in dynamic environment.

- Return on Investment: In the earlier phases, ROI for Online Banking was not a major threshold, as e-banking was a mere complementary display. In the following stages, e-banking became a mandatory investment, irrespective of any returns it would offer. In addition, competing factors and ever-changing business scenario baffled various managements on how to assess the ROI especially when the competition was increasing.

After the Internet Banking technology, channel perception and customer adoption reaches a critical mass; banks can assess the key parameters in judging the success of the investments they made over period of time. The cost of Internet banking can be divided into two major elements:

1. The essential cost of maintaining this channel complementing the comprehensive channel bandwagon
2. Specific cost incurred for development of Online driven value-adds. Also this later part, can be broken up into:
 - a. Routine essential needs
 - b. Aggressive initiatives for stay ahead (or in least stay in line with) of competition.

In today's scenario, ROI can be determined by a combination of:

1. Channel's strength to generate independent revenue stream.
2. Capabilities of the channel to bring new customers.
3. Reduction in cost of conducting transaction in comparison with the other channels.
4. Ability to offer customer convenience for multi-channel integration.
5. Brand-valuation built and enhanced by the bank due to enriched offerings.

In effect, the success parameters would be determined not only by customer acquisition, but also by reduction in customer attrition, improvement in customer loyalty, improvement in customer satisfaction index and customer experience horizon, improvement in organization brand value, transparency, and adherence to social values

- **Multi-dimensional Coverage and Profiling:** Banks across the world are putting relentless efforts at demand side in understanding customers, their behavior and habits, their needs, their expectations, their fears and other factors which lead to customer behavior. Therefore, profiling customer by the demographics, income, saving potentials and investment potentials has gained paramount importance. At the supply side, banks have to create customized offerings at the segment and sub-segment level. In addition, personalize the pricing models based on the relationship. This exercise involves a 360 degree review of the relationships and creating multi-dimensional offerings suiting the needs of the multiple customer segments.
- **Security, Compliance and Regulations:** Provision of reliable security is a key aspect for smooth conduct of internet banking. However, the definition of reliable security is being debated since the inception of Internet Banking. There is no quick-fix solution for countering the security threats. The world has seen innumerable ways in which security experts are striving to counter the anti-security community. In USA, the Federal Financial Institutions Examination Council (FFIEC) has defined authentications factors as follows:
 - Single factor: something you know (for example, user ID and password,)
 - Two-factor: something you have (for example, one-time use token)
 - Multi-factor: something you are (biometrics).

However, there are debates within the Information Security community on whether these are fool-proof mechanisms. The effort for countering the security threats is a continuous process.

There are a few banks that have used creative ways of enabling image based authentications. In addition, some banks extend liability guarantees (either comprehensive or partial depending on the type of transactions) for unauthorized transactions involving security intrusions. The effort of enhancing security infrastructure is an ongoing process.

In addition to security compliances, banks as well as customer have to comply with various laws and regulations as prescribed by each country for Internet banking. These laws and regulations can be of the following nature:

- Ensuring ethical and transparent disclosures
- Enabling the interfaces facilitating smooth access for disabled human beings
- Ensuring that product or service offerings do not contravene the laws of the land
- Ensuring that any specific banking channel is not used to enable transactions which are contravening the acts such as AML, Patroit and so on.
- Ensuring cyber laws regulation on communication, transaction, distribution mechanism for information devices and technologies over network
- Ensuring data privacy laws for financial and non-financial data, technology and the public perception on privacy.

While customer may obtain compensation in form of a specified liability guarantees, either on agreed terms and conditions or with mutual understanding; banks also protect their interest by extensive automations at each stage of authentication, which ensures the non-repudiation so as to save the bank's interest in genuine case. Earlier, banks were keen on authentication to be conducted at the login stage and to a limited extent at the transaction stage, but now security initiatives are progressing with advanced software, hardware and network security infrastructure proactively attempting to counter the security threats dynamically as well as proactively.

However, banks have to ensure that security is not just a factor of few automated devices but composition of multiple areas such as:

- Devising information technology strategies including security policy, internal and external audits, analytical teams, disaster recovery plans amongst others.
 - Devising new generation Online Transaction Security mechanism.
 - Developing customer compensation guidelines.
 - Developing customer education and awareness initiatives.
- Technology Assessment: Internet banking has evolved with the help of multiple technologies enabling:
 - Improving functional coverage.
 - Improving usability experience.
 - Analyzing customers for their behavior and banking habits.
 - Analyzing customer's profile and providing customized offerings.
 - Creating customer specific promotional schemes.
 - Enhancing intra-channel and inter-channel customer experience.
 - Providing value-additions over internet banking.

Various functionalities have been designed within the Internet Banking segment due to radical improvements in technologies such as Web 2.0, Check truncations, Imaging, SCM / CRM / SFA, Multi-channel Integration architecture, STP, Mobile, BI / DW and others. Banks need to assess the timing, ROI, customer expectations, competing threats, budgets, existing infrastructure and other such factors while adopting or extending any new technology initiative.

Enriching Customer Experience in the Multi-Dimensional Coverage

Customer experience is an evolving phenomenon and is studied from multiple-dimensional perspective as described below:

- **Customer convenience and servicing:** Customer services enhanced by providing of various tools, self-assisted advisors, customized multi-dimensional reporting, multi-language supports.
- **Bi-directional communication:** Today's internet banking communicates customer about his whereabouts, recommends or guides the roadmap, listen to needs and enable him customized services.
- **Collaboration, education, and participation:** Customer participation is paramount for the growth of the net banking. Various practitioners of the internet banking have successfully handled participation and education of customers in terms of test marketing, feedback drives, social networking and others.
- **Customer relationship:** Banks across the globe are utilizing new, automated campaigns using the best of the solutions involving automation utilizing Sales Campaign Manager, CRMS-enabled banner, and Customer preferences analytics. Specific studies are conducted for understanding generation based assessment to analyze customer behavior, trends and thus targeting customization of the channel based on this analysis.
- **Enhancing Value-chain:** Banks are enhancing the value-chain of the customer offerings by collaborating with new supply chain constituents, enabling multi-channel servicing, cross-selling the profiled customers, and enhancing servicing capabilities blending the channel deployment with offline services.
- **Transaction enrichment:** Various internet banking offerings have been enriched to cover service offerings across the globe. In addition, this includes covering the entire life cycle of the transaction. Various new types of offerings have been made specifically for promoting internet-only products e.g. promoting Internet-only term deposit product offering higher interest rates than the regular deposit product.
- **Improving Usability:** Usability improvement is practiced relentlessly by bankers in terms of the value it provides, effectiveness of the navigation, continuous efforts of renewed and impressive presentation, reinforcing trust, and providing customer convenience. Newer techniques in web designs, incorporation of web 2.0 and RIA features have been utilized to bring about the best value to the e-banking spectrum.
- **Analytical assessments:** While new and enriched offerings are created by the marketing and operational team, banks would be very keen to ensure the compliance in terms of security and other regulations. This channel deployment is adhered to. Also, various analytical assessments are conducted to study the usage of the real estate by the customer, key reason for success and failures of the various segments, return over investment of this channel.

Illustrative Case of Wallet Share Improvement Strategies Employed By Global Banks

Internet banking channel is increasingly enhanced to derive multiple benefits. Recent initiatives of some of the banks to design value-blended product compositions in order to attract new prospect segments or to cross-sale to the existing customer is evident from various innovations carried out by these organizations.

Attempts of various banks trying to create an environment to offer value-additions during presales and sales cycle are visible across the global banks. Instances of these attempts are:

- PNC bank offering virtual wallet for new generation customers especially the Generation Y, enabling insightful automation while they handle financial management mindful of their inexperience.
- Bank of America Add-it up 'online mall' targeting crunched online shoppers with cash back on buys at over multiple e-tailers (An e-tailer is a retailer that primarily uses the Internet as a medium for customers to shop for the goods or services provided.).
- Interactive social websites of Wells-Fargo in targeting connect with web savvy users.
- ANZ banks' "bemoneyconfident" initiative for customer involvement through education.

These are some instances of innovations that some of the banks have employed. This displays how a customer aspiration is blended with bank's outlook so as to create new virtual environment (as seen in Figure 4: Wallet Share Improvement Strategies) while banks increasingly try to enable an efficient hand-off and analysis of the data at the backend starting from "suspect to customer conversion" life-cycle.

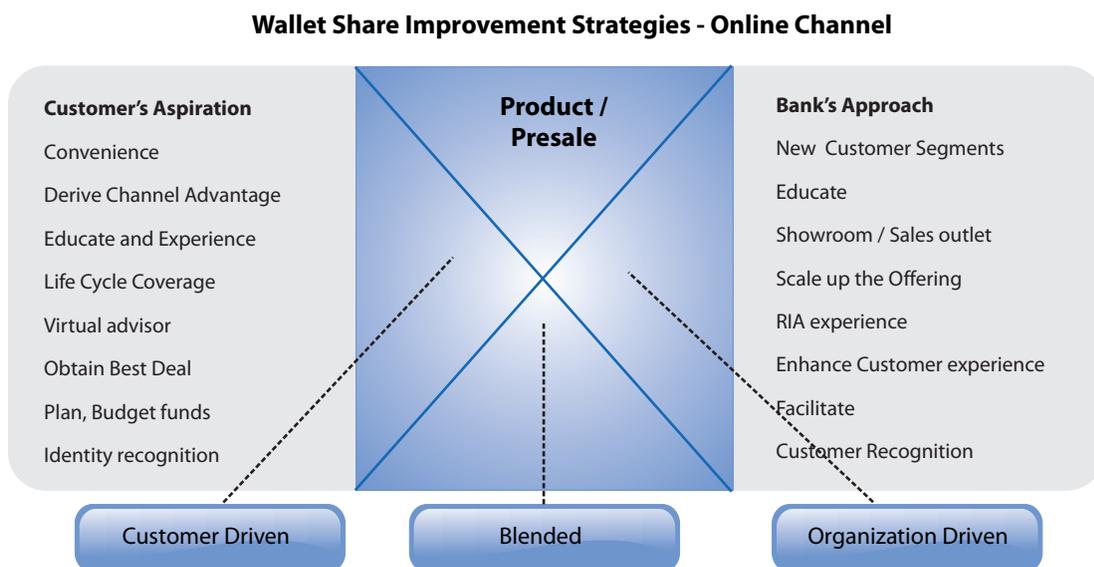


Figure 4: Wallet Share Improvement Strategies

Conclusion

Internet banking has come a long way since its existence, in less than two decades. Today's internet banking is speedily achieving the status of being an independent channel generating revenue as well complementing the comprehensive channel offering of a bank. Efforts of improving usability, presentation, functional coverage, enhancing supply chain components, extending transaction coverage for entire cycle or across geographies are relentless. However improving customer experience uniformly across various channel; customer education and participation, customer profiling, enhancing customer relationship are vital in the growth of this channel. We find that, most of banks across the globe predominantly use Internet Banking channel for cost reduction or customer convenience; whereas very few banks seem to adopt this channel comprehensively. Introspection by stakeholders of Internet Banking channel is needed to radically improvise the comprehensive utilization of this channel from both, strategic as well tactical level.

While an attempt has been made in this paper to present a case for comprehensive utilization of Online Banking Channel, discussions on the knowledge base on this topic cannot be presented in a single white paper. Therefore, we will attempt to present more such white papers on multi-dimensional aspects of the Internet Banking channel in the ensuing documents on this topic. We would also attempt to share our thoughts on how Internet Banking channel can be comprehensively utilized from multiple parameters such as Functional and Transactional coverage, Customer centricity, Prospecting & Lead Conversion, Channel Oversight, Organization support to channel, Multi-channel servicing, Supply chain coverage etc

How Tata Consultancy Services Can Help?

Tata Consultancy Services (TCS) has decades of experience in offering solutions to multinational, regional as well as local banks and financial institutions across the globe. TCS has been developing and supporting entire gamut of internet banking channel for many clients. TCS has helped banks and financial institutions to build, maintain, enhance e-banking both for the front-end as well as the back-end deployments. TCS has also been involved in evaluating "best global internet banks" in retail and commercial banking for a US based magazine.

With such a vast experience, TCS brings a deep understanding of the banking domain and an innovative approach in enhancing the internet banking value-chain. TCS provides consulting for assessing the functional coverage of the banks in line with best practices across the globe. In addition, TCS helps banks to make the best use of technological capabilities in various stages of establishing, nurturing, complementing, and evolving this competent channel.

Suggested Reading

- "Visible Bank" blog site by Christophe Langlois
- State of Online Banking April 2008- Comscore report
- Customer Experience in Online Banking - ComScore Study
- Reports on Online Banking by Forrester
- Reports on Online Banking by Celent
- "A banker's guide to Internet strategy in the post dotcom era", book by Sanjeev Singhal
- Building Online Banking for Gen Y

<http://www.crmbuyer.com/story/Not-Your-Fathers-Bank-Building-Online-Banking-for-Gen-Y-66246.html>

- Web 2.0 Financial Services Online and Mobile Widget Strategy: A Roadmap - www.myWorkLight.com
- "Internet Banking - Scene of last decade and some learnings"
<http://www.finextra.com/community/fullblog.aspx?id=802>
- "Bankers, are you ready for next wave? Wake up now for GEN Y."
<http://www.finextra.com/community/fullblog.aspx?id=819>
- "Will RIA replace MS office? Will RIA impact banking too?"
<http://www.finextra.com/community/fullblog.aspx?id=1437>

Abbreviations used in the white paper

RFID:	Radio-frequency identification
STP:	Straight through Processing
AML:	Anti Money Laundering
CRM:	Customer Relationship Management
SCM:	Sales Campaign Management
SFA:	Sales Force Automation
BI:	Business Intelligence
DW:	Data Warehousing
ROI:	Return over Investment

Explanation on specific terms used in the white paper

Baby Boomers: Term commonly used by marketing professionals for describing the segment of population born between 1946 to 1963

Generation X: Term commonly used by marketing professionals for describing the segment of population born between 1964 to 1976

Generation Y: Term commonly used by marketing professionals for describing the segment of population born between 1977 to 1994

Silver Surfer: Term commonly used by marketing professionals for describing the segment of population who are more than 50 years old

Terms referred from the following websites:

<http://en.wikipedia.org/wiki/Demographics>

<http://www.homebusinessmag.com/marketing/how-guides/how-market-gen-x-and-gen-y>

