AN EMPIRICAL STUDY ON E-COMMERCE APPLICATIONS
GROWTH OPPORTUNITIES AND BUSINESS PROSPECTS

Dr. N. Venkateswaran
Professor, Department of MBA
Panimalar Engineering College, Chennai
Tamilnadu - South India

ABSTRACT

e-Commerce applications is an issue that is gaining increasing importance with the advancing maturity of such systems. During the first two decades of e-Commerce, most business models were based on the assumption that e-Commerce was a substitute for brick-and-mortar retail. Consumers are using online tools to compare pricing, research functionality, and secure discounts such as groupon, only to make the final purchase in-store.

There is no question that e-Commerce is here to stay as an integral component to a successful retail sales strategy. However, we are in a highly transformative time as changing customer expectations, commerce capabilities and technology evolve rapidly. Tomorrow, we will see emerging customer experiences such as in-car navigation, home appliances and many other items connected to the web open up future commerce opportunities.

Many e-commerce firms which found a footing in regional or domestic geographies are now strongly aware of intense competition in their maturing sectors and scramble to develop their brand abroad in underexploited markets. E-commerce companies of all sizes analyze existing and future markets, and strategically anticipate how existing e-commerce solutions will grow with business ambitions so there is built-in functionality flexibility, and scalability.

Mobile devices have become integrated in e-commerce and in consumers' shopping habits. Volumes in mobile commerce are still limited, but they will increase rapidly as the behaviour spreads to new customer segments. Shops can take advantage of these opportunities, but it takes a lot to build a successful mobile sales channel.

As the e-Commerce marketplace continues to evolve, it is critical for merchants to make the right choices in technology and operational capabilities. This paper looks at the latest developments and key elements that are important to any e-Commerce solution, including payments, security and marketing.

Keywords: Smart phones, tablets, mobile commerce, B2B, retail outlets, merchants

INTRODUCTION

The quality of e-Commerce applications has been constantly improved over the last few years. Especially the major suppliers run websites which are of noticeable usefulness and which are reliable enough to assure the customer’s trust.

Very soon, more and more retail outlets will be using mobile devices to not only make sales, but also to show customers additional features or other products available for special order.
And if the customer wants the special order product, the employee can swipe the customer’s credit card on the spot and place the order for them.

The mobile era has truly arrived. Over the last few years, consumer uptake of mobile has grown exponentially and our own research has shown that a staggering 93% of consumers now own a Smartphone and 53% own a tablet. Almost half (46%) own both.

Many consumers already take it for granted that they will be addressed personally when they pay repeat visits to the major E-shops such as amazon.de, buch.ch or ebay.com, and will not have to key in their address and banking details with every new purchase. They allow the shop operators to offer their customers additional tailor-made benefits.

The web browser will be only one of many touch points that merchants will need to support in order to maximize transactions with customers. Already, an average of two percent of e-Commerce revenue is coming from smartphones such as the iPhone® and Android™ powered devices, according to a report from Forrester.

There is no question that e-Commerce is here to stay as an integral component to a successful retail sales strategy. However, we are in a highly transformative time as changing customer expectations, commerce capabilities and technology evolve rapidly. Initiatives that seemed like science fiction just a few short years ago, such as mobile commerce, app stores or shopping on Facebook®, are now realities that are shaping what merchants need to do to keep their e-Commerce initiatives current and competitive.

As shown in the below figure prospective consumers across the globe are making a clear shift from “traditional” retail shopping to an integrated approach that combines digital technologies with the physical environment.

**Figure 1: Shifting patterns in retail sales**

Over the next ten years, the study projects that the ecommerce compound annual growth rate will be five times the rate of traditional retailing with 15% for ecommerce vs. 3% for
traditional retail. On that basis sales will reach $624.17 billion in 2020, as offline sales reach $3.64 trillion making ecommerce equal to 17% of total U.S. retail sales in 2020, compared with 5-6% now.

These trends are not strictly confined to retail sales; they are also playing an important role in B2B sales. For example, a large auto parts company recently capitalized on mobile technology to streamline ordering and payment options for its independent operators. Before, when an auto care center mechanic needed to place an order, he or she would go to one computer to check inventory and confirm part numbers, then go to another computer across the store to ring up the sale and put it on their account. Today, the same process can all be done using an iPad without ever leaving the garage, the mechanic can access inventory, process charges and run an efficient business.

**HOW E-COMMERCE OPENS THE DOOR TO MORE TARGETED MARKETING**

There is no doubt that consumers use online media when researching products or services. In fact, this study analyzed that 97 percent of consumers use online media before making a trip to the store.

The popularity of mobile devices has greatly increased the availability of news content. The consumer is rarely without the latest headlines and whether it’s keeping up with breaking news from the sofa, when travelling to work or when out with friends, the additional screens of mobile news consumption give publishers more options to engage with their readers.

More than one billion consumers now use a smart phone device on a daily basis. The mass adoption of sophisticated smart phones and tablet devices has led to a massive shift in e-commerce trends. Instead of marketing to consumers solely via traditional browsers, many retailers now target customers over the mobile web. The efforts are paying off handsomely, as mobile e-commerce trends show increasing growth in all sectors.

The United States leads the way in e-commerce, spending a projected $231 billion for 2013. China is not far behind with spending of approximately $181 billion. Consumers in the U.K, come in a distant third with $141 billion in spending. Across the globe, consumers are expected to spend a cumulative total of more than $1.2 trillion dollars this year on mobile purchases. Google research suggests that a whopping 72% of all tablet owners use their devices to make digital purchases on a frequent basis. This number is expected to continue growing as more consumers make the transition to tablet devices and leave their desktop machines behind. It is important to note that e-commerce purchases over tablets do not just include physical goods. Tablet users also invest in digital content, such as movies, television shows, and digital books. All of these purchases contribute to overall purchasing patterns.

As the study quotes earlier consumers uses mobile devices such as smart phones and tablets which will play them an integral part in shifting their shopping habits. The study highlights some key findings that e-Commerce consumers relying more and more on their smart phones and tablets to perform the following traditional shopping tasks.

- 72% will use their smart phones to find store locations
- 62% will use them to compare prices
• 46% to check product availability
• 45% to read reviews
• 41% to find coupons
• 35% to access social media

Tablet e-commerce growth will also increases in current competitive markets. As consumers grow more and more dependent on mobile devices for shopping their expectations of experience will also grow. Today, desktop websites on smart phones and tablets often obstruct the purchasing process, with incompatible forms and shopping cart functions. Tomorrow, users will simply turn back when they encounter these challenges on their tablet or smart phone device.

The stats are remarkable: in 2012, tablets accounted for 3.3 percent of all US retail purchases made online, shooting up to 7.4 percent in 2013. With growth like this, the study predicts that tablets will have 18.2 percent share in US e-commerce by 2019.

Smart phone usage lags in comparison, with 4.5 percent of total US retail e-commerce sales in 2012, inching to 5.3 percent in 2012. The study predicts only a slight increase to 7.9 percent by 2016. Fat fingers and small screens hinder smart phone mobile commerce growth, as users look to tablets for a less obtrusive online shopping experience.

With tablet driven e-commerce purchases expected to double in the next two years, now most of the sectors reengineering time to mobilize their business through web presence. New devices infiltrate the market every day, and sectors want to be ready to greet customers from each one.

**MOBILITY CONNECTS SHOPPERS**

Smarter retailers are integrating mobile solutions in a fashion that enables a seamless and consistent cross-channel shopping experience. This includes leveraging the anywhere, anytime reach of mobile to provide customers with conveniences such as real-time product and order information, as well as personalized offers and assistance. They are using mobile strategies to drive more traffic into the store, increase market baskets and improve the retailer’s overall brand image.

Germany has the most consumers with bar code scanning apps, the report says, with 32% of Smartphone owners there having a reader app installed. That is followed by the Netherlands (31%) and Spain (30%). Code reader apps are more popular among iPhone (39% installed) and Android (33%) users than other European Smartphone users (27%).

Unfortunately, while mobile shopping is connecting merchants and consumers, it also is breaking down the walls of traditional brick-and-mortar stores by giving consumers the ability to easily find a cheaper price in a store down the street. This technological evolution means that businesses will need outstanding barcode programs to meet customers’ expectations. Consumers will be encouraged to load applications that tie to store “beacons” via free Wi-Fi or their cell networks. These applications will detect their location in the store and tie to their cross-channel purchases and browser histories, shopping lists, social networks and marketing response to deliver
It is not unusual today to see consumers whip out their iPhones to do some comparison-shopping while they are in the store. They can compare brands within a store. Now consumers can get in on the barcode action, with mobile applications. Smartphone users can take pictures of barcodes to get product information and reviews on demand. These innovations will surely revolutionize the barcode industry. As consumers come to expect accessible information, virtually all barcodes will be part of an “open loop” system that includes not only manufacturers, distributors, and retailers, but also end users. Thus conforming to industry standards and ensuring barcode quality will continue to gain importance.

STRENGTHENING E-COMMERCE SECURITY

Operating a secure online store is challenging, to say the least. Yet, by minimizing losses due to fraud and using security to build business through customer confidence, merchants can increase the profitability of their e-Commerce initiatives.

The fraud rate by order (the percentage of orders that turned out to be fraudulent) dropped from 0.9 percent in 2010 to 0.6 percent in 2011—the lowest in the 13 year history of the survey. The fraud rate by order dropped 33 percent, from 0.9 percent in 2011 to 0.6 percent.

The study identified merchants are working harder than ever to keep fraud in check, using more tools and reviewing more orders. Clearly the criminal element is growing more sophisticated. The study also found 27 percent of merchants have made investments in true m-commerce channels (accept orders from a mobile app or mobile optimized browser). On average, merchants say 1 percent of online revenues were lost to fraud in 2011, a slight increase over last year's 0.9 percent.

GOING BUSINESS GLOBALLY

The study examined three-fourths of respondents sell merchandise internationally. However, this same study shows that online merchants are doing little to actively encourage orders from consumers outside the domestic market.

In 2012, B2C ecommerce sales grew 21.1% to top $1 trillion for the first time. The study estimates this year, sales will grow 18.3% to $1.298 trillion worldwide as Asia-Pacific surpasses North America to become the world’s No. 1 market for B2C ecommerce sales.

Sales in North America grew 13.9% to a world-leading $364.66 billion in 2012—a figure expected to increase 12.2% to $409.05 billion this year—as more consumers shifted spending from physical stores to retail and travel websites thanks to lower prices, greater convenience, broader selection and richer product information.

Three Asia-Pacific markets—China, India and Indonesia—will see faster B2C ecommerce sales growth than all other markets worldwide this year, while Japan will continue to take a large share of global sales.
China, unsurprisingly, is the primary driver of growth in the region. The country will surpass Japan as the world’s second-largest B2C ecommerce market this year, taking an estimated 14% share of global sales, as its total reaches $181.62 billion, up 65% from $110.04 billion in 2012.

The US will remain the single country with the largest share of worldwide B2C ecommerce spending, at 29.6% in 2013—down from 31.5% in 2012 despite relatively strong growth. This will continue throughout the forecast period, though China is closing the gap fast. In 2016, China will have 22.6% of the worldwide market, vs. 26.5% in the US.

Respondents were asked to select the major challenges of selling to a global online marketplace. The top six responses were:

- Customer service and returns (45 percent)
- Fraud management (32 percent)
- Legal and regulatory concerns (23 percent)
- Ability of customers to see the final cost in local currency (18 percent)
- Language translation (29 percent)
- Payment type preferences (26 percent)

Interestingly, four of the top six issues are all payment related, making payment acceptance a critical factor in building a more favorable consumer experience. Merchants can attract and retain international customers by addressing these issues with tools such as currency conversion displays that show the exchange rate at checkout and give international shoppers the option to “lock in” the sale amount in a home currency, or global pricing catalogs that present items in the shopper’s local currency throughout the site.

**MAJOR KEY FINDINGS FROM THE STUDY**

- The likelihood of shoppers using an app to make an online purchase in the next year is 56 percent for smart phones and 60 percent for tablet users, while 45 percent of tablet users and 49 percent of Smartphone users said they would consider using an app instead of a mobile-based website.
- Smartphone mobile sites typically have very little dynamic content and focus mainly on search and category navigation.
- Major retailers are using Facebook as a vehicle for social browsing discovery, and sharing but not yet as a platform for e-commerce.
- About 52% of the retailers have iPad applications, but 29% of them don’t include purchase capability.
- Tablets drove more traffic to retail sites than smart phones during the first quarter of 2012, 6.52 percent vs. smart phones 5.35 percent.
- Tablet traffic also grew 348 percent, while smart phones increased by 117 percent in the last year.
- iPad users are king when it comes to tablet retail, they account for 95 percent of that traffic.
- Tablet traffic would outpace smart phones by early 2013. Tablets are also taking over the PC shopping experience — PC traffic to retail decline to 88 percent, and this study estimates that it will continue to drop to below 75 percent in the next year.
• One in three consumers admit they are less likely to buy online because of concerns about the risk of fraud
• E-commerce fraud set to rise by 18% by 2015 as an increase in mobile and social media channels creates more opportunities for fraudsters
• 39% of retailers have an adequate plan to address mobile and social media fraud

FUTURE DIRECTIONS OF E-COMMERCE

By 2015 E-Commerce is projected to touch more than 300 billion dollars all round the world and its business can operate on a global scale and there are no distance barriers and reach wider audience.

As e-commerce outlets continue to evolve, shoppers will expect more advanced offerings – and that's not limited to the products being sold. Customer service options have to move forward along with consumer preferences, and that means devising ways to help shoppers troubleshoot through problems more quickly than ever before.

As e-Commerce continues to mature, merchants have the opportunity to take advantage of new technologies that will help them meet the growing demand of the mobile and social revolution. By investing in and adopting emerging technologies that enable commerce across channels, merchants can attract customers who are ready to interact in new, tech-savvy ways.

Now there are Phablets which are bigger sized phones also available in the market, which are becoming quite popular among the users. Companies need to be open to this kind of adaptability. The companies that invest in adaptability will be the ones who earn the most steady long term growth.

Emerging technologies like mobile wallets, merchant specific mobile applications, time and location based strategies, cameras on mobile devices working as barcode scanners, near-field communications, enhanced predictive analytics that will become as integral to e-Commerce capabilities in the future as online shopping carts are today.

In the near future if a retailer wants to not only be successful in e-commerce, but maintain and grow its customer base, it not only has to know what trends are popular, but make sure that products can be easily browsed and bought in a mobile application.

CONCLUSION

While e-Commerce has been around for almost 20 years, in many ways it is still in its infancy. In most countries, e-Commerce still represents less than 10 percent of all retail. And yet today, we see a very clear shift from e-Commerce as a standalone entity, to an e-Commerce model that is integral to retail operations, one that is increasingly globalized, and one that supports a more targeted, intimate conversation with customers.

As the e-Commerce channel continues to grow and evolve, merchants need to find innovative ways to make their online business an important driver of future growth. The online business firms need to adapt strategies such as enhancing payment platform capabilities, preventing fraud and protecting transactions in order to minimize losses, using targeted marketing
strategies, preparing for the future by identifying emerging technologies that are shaping the next decade of e-commerce.

In implementing above mentioned strategies, merchants will set the stage for e-Commerce to make the transition from “sideshow” to a profitable component of retail operations that is integral to the success of the business

REFERENCES


