

# Missed Opportunities in Mobile E-Commerce Usability

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**Abstract**— Fundamentally, the development of mobile e-commerce has immense potential. While a minority of companies and organizations are improving their sites by making them more mobile friendly and functional for users, majority have failed to recognize the important differences existing between usage in this area and what is offered using standard internet access; a medium which was slowly adopted. This paper reveals that (using the m-commerce example), this is the case and business is slow to respond to such developments or changes, similar to what happened when the e-commerce opportunities were first made available. Although, this may bring enhanced benefits to the minority of 'first movers' in the market, the unresponsiveness and lack of attention by most companies indeed represents largely missed opportunities to participate in mobile e-commerce usability.

**Index Terms**— Usability, M-commerce, E-commerce, Mobile E-commerce

## 1 INTRODUCTION

THIS paper makes the case that the portrayal of technology enabled change as being dynamic and fast-moving, with opportunities and challenges being taken up by businesses resulting in rapidly transformed services and profits, is a misnomer in general terms and with regard to m-commerce in particular. There are a lot of potentials in mobile e-commerce and many companies are developing mobile-friendly sites. However, many companies failed to distinguish usages and through standard internet access. These companies lack foresight and are unable to comprehend the potential that exists, in terms of customer relations management, since they are overly concerned with issues such as privacy and security.

## 2 THE POTENTIALS OF MOBILE E-COMMERCE

While the technological advances of recent years are often highly acknowledged, it can be argued that the pace of changes in business and in marketing strategies that have ensued have been, at best, unimpressive compared with the potential to have better strategies. For example, web-enabled mobile devices have been available since the late 1990's [9], but it is only in recent years that the potential inherent in smart phones have begun to be aligned with their technical capabilities. In spite of this, there has been a dramatic increase in the popularity of these devices and in their use commercially. The extent of this usage is enunciated by Cisco in [4] who reveals this using available statistics. He uncovers that the amount of traffic via mobile devices across the world was "885 petabytes per month at the end of 2012 [4]," this represented a 60 per cent increase over the monthly usage levels that were recorded till the end of 2011.

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In addition, the mobile data traffic for 2012 was increased 12

times [4], which the internet produced in 2000 and the speeds with which connection could be made "roughly doubled" in 2012 [4].

Other statistics reveal that mobiles phone currently represent approximately 47 per cent of site traffic in Australia, 40 per cent in Brazil, 34 per cent in Korea and 31 per cent in the UK and the US [7]. Mobile traffic, furthermore, is expected to overtake that of desktop and laptop computers by 2014 [10] and m-commerce, is estimated to have grown by 254 per cent between 2010 and 2011 and by 3000 per cent between 2011 and 2012, in spite of the apathy described previously [7]. An interesting point relevant to this paper, is that tablet users are far more likely to use their devices to make a purchase than a smart phone user, as revealed in the survey, 64 per cent have made a purchase using this device compared to a corresponding figure of 29 per cent for smart phone owners [7]. Similarly, despite the fact that an estimated 44 per cent of smart phone owners have used their devices for a shopping activity, the most popular use was in taking pictures of products in shops and in contacting people from the shop and/or sending a picture [7]. Other 'shopping' activities included scanning bar codes, researching product features and checking products' availability, with the least activity being the actual purchase of a product using a smart phone [7].

## 3 OPPORTUNITIES THAT EXIST IN MOBILE E-COMMERCE

The opportunities, as noted, have been there for a relatively long period of time but the adoption by retailers and marketing management teams has been slow. In 2010, there was a general or widespread reluctance to embrace m-commerce. For example, a survey in this year indicated that 94 per cent of mobile users would be willing to make purchases via their handsets of up to €25 and over 50 per cent of users would have been willing to make purchases valued over €100 [8]. This may be as a result of concerns regarding payment security and privacy [2].

Primarily, the opportunities provided by m-commerce were not fully exploited because of the focus on privacy and securi-

ty problems which in the end proved to be an unnecessarily cautious approach providing reasons for not taking advantage of this market. In 2010, despite a forecast that the global revenue from m-commerce could reach \$200 billion by 2015, only 5 per cent of UK retailers were within the m-commerce market in terms of availability to mobile users and this apathy can be observed in the finding that “only 24 per cent of remaining retailers were planning to develop one” [8].

The fact that a minority of companies and organizations made positive moves which led to them reaping rewards in the early period that m-commerce was introduced, should have been a major motivating factor for more organizations to adopt m-commerce. One example is Amazon, which in September of 2010 stated that it had processed orders from all areas in which it operates of more than \$1 billion from customers who had placed their purchases using a mobile device [2]. Another example of a retailer that took advantage of opportunities that could have been equally taken by its rivals is Argos, a branch of Home Retail in the UK, which has so far managed to achieve 17 per cent of its total sales of £889 million in the second quarter of 2013 via m-commerce [6].

Even where retailers are delaying in their adoption of m-commerce, there appears to be either a lack of understanding of the true potential of the market or apathy towards exploiting this potential to the fullest. For example, in terms of market segmentation, Askalani in [1] suggests that for companies that have embraced m-commerce, besides having an iPhone application, which seems to be the end for most and restricts strategizing further, there exists so much more potential and opportunities that organizations can tap into. Market segmentation that entails understanding the behavior of mobile customers in the same way that marketers have learned to exploit segmentation in the laptop and desktop e-commerce markets is necessary. The challenges may be different but the same basic principles can be applied. Fundamentally, the data usage information is out there, or can easily be obtained by monitoring and gaining a true understanding of the market and its inherent potential.

#### 4 THE MISTAKES OF MOBILE COMMERCE

The biggest mistake made by most retailers, is acting nonchalantly as regards the development or establishment of a mobile presence providing opportunities for smart phone users to shop using their mobile devices. The underlying rationale for this has been explained in the previous sections of this paper with evidence extracted from available statistical data. From among those that have adopted m-commerce, many perceive having mobile presence either as an extension of their existing websites and demonstrate a lack of understanding as to the full potential of m-commerce usability [1].

Companies that have adopted m-commerce lack understanding/knowledge on how to use the tools associated with m-commerce. For example, E-commerce Facts in [5] draws attention to several common errors as highlighted by Google. One of which is that, when smart phone users get to a desktop page, they are often redirected to a mobile-proficient site but end up in an “irrelevant page”. Another error is that, numerous sites display their content to laptop and desktop users but

when the sites are accessed via a smart phone, an error page comes up. This problem has received some attention from Google as it has changed its ranking criteria so that sites which do not pay attention to these errors are punished. Google has also issued guidelines which recommend that users who access internet via a smart phone should be automatically redirected and, even if the company does not have its content in “smart phone friendly format,” it should at least show the content from the main (desk and laptop) sites [5].

While the above mistakes are quite easy to fix, they are made very often, to the extent that the major global search engine (Google) expresses the need to protect its own reputation by imposing penalties that will reduce the access potential for scores of companies that make such mistakes. Randolph in [10], presents some other errors and examples of companies that commit such errors. For example, the New York Times allows smart phone users opt in to its mobile-friendly facility rather than automatically re-directing them. In addition, Starbucks invested a lot of time and effort to produce a very impressive one-page advert for one of its coffees with “lovely big call to action buttons” [10]. However, while it is clear and easy to view adverts on the desktop version of this ad, what smart phone users get is submerged in reviews that obscure the relevant ‘buttons.’

In more general terms, Starfish 360 in [11] highlights the fundamental opportunities that many sellers are missing out on by contrasting the fact that, on one hand, many sellers do not allow customers buy via their smart phones and on the other hand, research has shown that approximately 7.7 million potential customers are prepared to shop via their hand sets. One fairly consistent criticism observed from most literatures is that firms are either missing opportunities to link with social media [11] or do not understand how best to use this form of communication [3]. Perhaps, the most common mistake that is worth re-emphasizing is when assumptions are made that m-commerce and e-commerce are the same. In addition, obvious facts such as the differing sizes of screens, how operable one is compared to the other, the compulsiveness that can come with being mobile as opposed to the approach of shopping online with e-commerce and different methods of making payments are ignored.

If these points are aligned with research findings that 82 per cent of customers will be negatively influenced with regards to purchase decisions. However, they perceive a poor online performance, and that even includes offline purchases, one can be puzzled by the lack of attention to m-commerce by so many selling companies.

#### 5 CONCLUSION

It is easy to assume that because the world of business and commerce has changed at a much faster pace in recent years than in previous times. The new dynamic compels that companies have to be at the ‘cutting edge’ of change if they are to survive by quickly adopting new technologies to increase company potential via innovative methods and approaches. However, when considered more carefully, and when the veneer of apparent dynamism is removed, only a minority of companies that take up the challenges reap the rewards.

This paper has explained, through the example of m-commerce that companies are slow to respond to mobile-friendly sites and the opportunities that are available in mobile e-commerce availability. While this may bring enhanced benefits to the minority of 'first movers' in the market, the in-ertness and lack of attention by most companies does indeed represent largely missed opportunities in mobile e-commerce usability.

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