

over secure links and also the sharing of information between business partners.

- **Improved customer relations:**

The success of a business can often be measured by its ability to satisfy customers. Mobile commerce enables fieldworkers the ability to answer customer questions, check order status, delivery status and provide other services anytime their customers need them from wherever they happen to be.

- **Improved decision making**

Mobile Commerce will enable you to conduct business at the point of activity. The ability to collect, access and evaluate critical business information quickly and accurately means better decision making that can have a far reaching effect on your company's ability to compete successfully.

- **Saves Time**

Traders or buyers can now access commercial activities and business documents and files over a secure channel based on real time constraint.

- **Portability**

This would be one of the main advantages of mobile computing, you are not restricted to one location in order for you to get jobs done or even access email on the go

- **Location flexibility**

This has enabled user to carry out commercial activities from anywhere provided there is a connection established.

- **Increased productivity and Reduced cost.**

There will be increased individual productivity, increased sales per sales person, invoice or sales receipt can be saved and viewed on the mobile device.

4.1.1 Mobile Computing Mobile B2B (Business to Business)

Mobile computing solutions (B2B and supply chain management) enable organizations to respond faster to disruptions by shifting resources related to critical events as they occur. The wireless environment has enhanced these commerce transactions (Beaubien, Leidner & Turban, 2009) by integrating the mobile device into the supply chain, it is possible to

- Check availability of a particular item in the warehouse
- Make mobile reservations of goods
- Order a particular product

- Provide security access to confidential financial data
- Reduce clerical mistakes and improve operations.

4.1.2 Mobile Computing – Mobile B2C (Business to Customer)

Business-to-consumer (B2C) is an Internet and electronic commerce (e-commerce) model that denotes a financial transaction or online sale between a business and consumer. B2C involves a service or product exchange from a business to a consumer, whereby merchants sell products to consumers (Beaubien, Leidner & Turban, 2009).

A large number of applications exist that support consumers and provide personal services and can be carried out on mobile devices.

5. Proposed Methodology

A generic framework is proposed based on the literature to facilitate researchers on conducting usability studies for mobile applications. The framework involves some major issues that researchers need to take into consideration while designing a usability test for a mobile application. Provides some suggestions and insights on how to select appropriate research methodologies and deal with unique issues of mobile applications (Zhang & Adipat, 2005).

The Two major methodologies that have been applied to usability testing of mobile applications are laboratory experiments and field studies. In a laboratory experiment, human participants are required to accomplish specific tasks using a mobile application in a controlled laboratory setting, whereas a field study allows users to use mobile applications in the real environment. Both methodologies have advantages and disadvantages. Therefore, selection of an appropriate methodology for a usability study depends on its objectives and usability attributes (Park, & Park 2007, November)

i) Laboratory Experiments

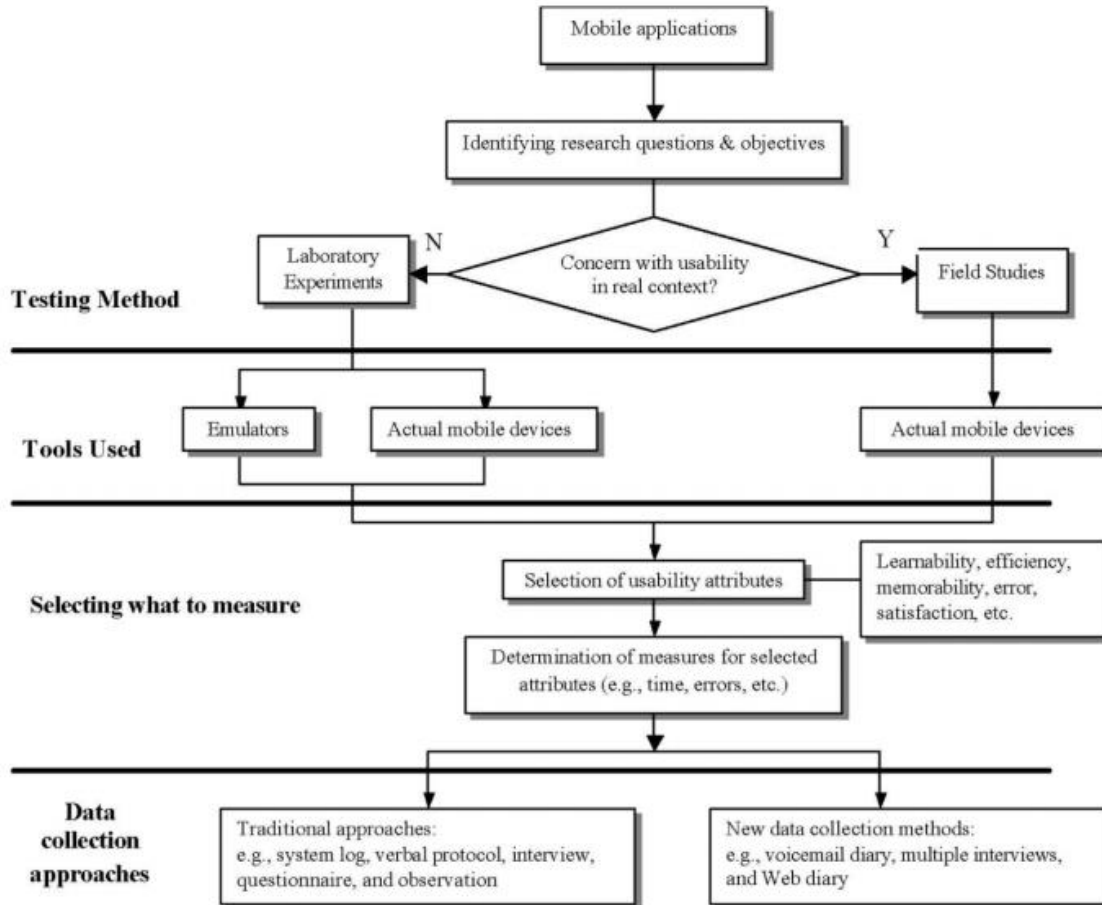
There are several advantages of performing usability testing of mobile applications through controlled laboratory experiments. Firstly, a tester has full control over an experiment. He or she can define particular tasks and procedures that match the goal of a usability study and ensure that participants follow experimental instructions (Bautsch-Vtense et al., 2001). For example, if the objective of a study is to investigate the effectiveness of a data entry method while a user is moving around, then a laboratory experiment is more appropriate than a field study, because testers can explicitly require and ensure that participants use a mobile device while moving. The

laboratory experiment approach is very helpful to usability studies that focus on comparing multiple interface designs or data input mechanisms for mobile devices. A major limitation of the laboratory testing method is that it ignores mobile context and unreliable connection of wireless networks (Zhang & Adipat, 2005).

ii) Field studies

A major advantage of conducting usability tests through field studies is that it takes dynamic mobile context and unreliable wireless networks into

consideration, which are difficult to simulate in laboratory experiments. The perceived usability of a mobile application is derived based on participants' experience in a real environment, which is potentially more reliable and realistic compared to laboratory experiments. However, performing field studies for mobile applications is far from trivial. A major challenge of this methodology lies in the lack of sufficient control over participants in a study.



*Source: IJHCI (Taylor and Francis)
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Fig 2: framework for the design and implementation of usability testing of mobile applications

Conclusion

In a rapidly evolving world of technology mobile commerce, the growth and development rates varies widely. Most companies now integrate mobile commerce applications into their business models and this depend on a lot of factors, most especially

the combination of communications technologies previously adopted.

There are many mobile commerce applications that are widely used today. They include, digital cash, Inventory Tracking and Dispatching, Travel and Ticketing, banking mobile application etc. While designing a Mobile Commerce application there is a need to improve on the user interface and some other

requirement .4G systems with a better security, higher speeds, higher capacity, lower costs, and more intelligent infrastructures and devices will help realize mobile commerce applications effectively, with improved wireless security, privacy through data encryption, user education and with the wide deployment of 4G systems.

In the current business organizations, mobile commerce has been entered in finance, services, retails, telecommunication and information technology services. Mobile Commerce is not only being widely accepted but also it is being more used as a popular way of doing business today. On the other hand, it is anticipated that mobile commerce will become the most dominant method of conducting business transactions.

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