



## Influence of Application Design & Layout and Content Factors of Mobile Learning on Job Performance: A Study on Employees of Selected CDIT Retail Stores in Bangalore

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### Abstract

Retail sector in India is on growth path however faced with challenges like high rentals, skilled manpower, supply chain and enormous competition. Customers of today are more knowledgeable, and expect unmatched customer experience. Also, introduction of new products with regular changes in the technology, increased competition and dearth of skilled manpower has made retail companies especially CDIT retail stores to emphasis on knowledge and skills of employees to meet these changing market dynamics. Along with traditional learning modes, Mobile learning is the evolving and widely explored learning platform in the education, and training arena.

### Keywords:

Retail  
Mobile Learning  
Mobile Learning Application Design  
Mobile Learning Application Layout  
Training Content  
Product Training Content  
Job Performance

The exploratory study was undertaken with an objective to investigate the factors that influence the mobile learning on job performance among employees of the CDIT retail stores. The study shows that the design & layout of the mobile learning as good with a sign of scope of improvements. The respondents have considered that the overall content was presented in an interesting manner, they were relevant and useful for their job and helped improve job performance.

Hence, from the study it is concluded that employees appreciate the importance of mobile learning and find it interesting and useful for gaining knowledge and skills required to perform their job better.

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### 1.Introduction

In the late 80's and 90's with the growth of technology has led to the beginning of new way of learning i.e E-Learning. It used the desktop and computers and took the education to the different level (Rajshree Vaishnav, et.al, 2017). Further, with the changes in the generation and advancement in technology has witnessed manifold changes in the electronic devices like mobile phones from a basic phone with simple features to touch screen with all features a laptop or camera can do.

The Millennial generation, who are born with widely held electronic gadgets, are tech savvy and they extensively use mobile for entertainment and for socializing among friends and family members. The

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multipurpose nature of mobile devices has gained popularity among current generation. Mobile device is being used for multiple activities like calling to messaging, video calling to photography, online shopping to banking activities, etc. The recent development is the use of mobile for education. In education field, this device helps to overcome the learning boundaries from four walls to anywhere and anytime learning (Emily Davie, 2015).

The M-Learning or Mobile learning concept is the outcome of these changes in the generation and technology. Learning new knowledge and skills through mobiles is called as M-Learning or Mobile learning (Emily Davie, 2015).

Though, mobile learning is being used for education purposes, however satisfaction of the students towards the overall mobile learning system and the content is significant for the acceptance of it for the long-term viability. Hence, it becomes all the more important now to investigate and understand what are those functions or factors that impact the satisfaction of the students. It includes people who are the users, technology ie the Mobile device, learning application design, and the environment in which it operates (Waleed Mugahed Al-rahmi, 2015).

### **1.1.Literature Review**

Technological advances in mobile phones, internet and changes taking place in the socio-economic systems are going to disrupt the education system in India, perhaps other learning fields too. University students are open and ready to accept mobile phones along with other on-going learning methods, because their belief is that this helps in fast & quick information sharing, self-driven learning and enhanced learning experiences among teachers and peers. With the use of mobile for learning, the learning takes place anywhere and anytime outside of the learning environment (Tashfeen Ahmad, 2020).

Since Mobile learning is not confined to one place or person, hence it offers more learning opportunity for the learner, learn new concepts / technology / subject, and collaborative learning (Dr. Agah Tugrul Korucu, et.al, 2018).

The user perception and acceptance of mobile learning as a learning tool hinges on the quality of the learning materials. The relevant, useful, adequate, and timing of the learning material are significant in this regard (Manoj Prajapati, et.al, 2014). In one of the studies, it was observed that different courses and subjects are available on Mobile learning however effectiveness of the mobile learning is subjected to select topics / area/ courses (Dr. Agah Tugrul Korucu, et.al, 2018).

In the study conducted, it was found that users are gratified with the mobile learning in the education however it is directed by the factors like how best mobile learning can hold on to the attention of the user and to what extent technical glitches can be addressed (Gaurav Hans, et.al, 2018).

In one of the studies, it was found that Mobile is used for more than 5 hours per day for diverse purposes however not used much for learning. The maximum utilization of mobile learning can be done by designing mobile learning models to make learning more attractive and useful (Leni Pebriantika, et.al, 2019).

Acceptance of Mobile learning as a tool is driven by the perception of the user, there are two groups of users one who consider mobile learning as a learning tool because they like to use electronic gadgets and another group who are unconvinced about the mobile learning because of personal constraint like cost or user experience (Hayati Hashim, et.al, 2009).

In the study conducted Screen size of the mobile, battery life and time taken by images to load are found to be not the major concerns, however the cost of mobile network services is the concern. Institutions or organisation espousing mobile learning as a learning tool have to consider different factors like user intellectual ability, reasoning, psychological, socio-economic conditions that have greater influence on the perceptions, acceptance and adoption. (Hayati Hashim, et.al, 2009).

## 2. Research Method

### 2.1. Problem Statement

Mobile learning is at nascent stage and still needs to be accepted as one of the training methods. Reasons for the same could be investment, infrastructure, most importantly acceptance by teachers / trainers / students / employees and other factors like –

1. Design and Layout of the mobile learning application
2. Contents
  - Employees Requirements
  - Type of Topics/ Modules –
    - Product Training
    - Offers
    - New Updates
  - Assessments
  - Usefulness of the topics
  - Presentation of content
3. Outcome
  - i. Job Performance

Considering the above factors, author has carefully chosen the research problem as “Influence of design, layout and content of the Mobile Learning on job performance of employees- A Study on Selected CDIT retail stores in Bangalore”

### 2.2. Objective

To evaluate the influence of factors like design & layout and content of mobile learning on job performance among employees of CDIT Retail stores.

### 2.3. Hypothesis

**H<sub>0</sub>**: There is no significant influence of Product Content on Job Performance

**H<sub>1</sub>**: There is significant influence of Product Content on Job Performance

**H<sub>0</sub>**: There is no significant influence of Content factors on Job Performance

**H<sub>1</sub>**: There is significant influence of Content factors on Job Performance

### 2.4. Method of Data Collection

To recognize factors influencing the use of mobile learning, the Exploratory Research study was undertaken among employees of Consumer Durable and Information Technology (CDIT) retail format located in Bangalore city. Required data for the study was collected through following methods –

### **2.4.1. Primary data**

The primary data is novel in nature and is collected through Questionnaire and General Observation method.

- General Observation method: General observation method was used to understand the user experience of the Mobile learning application.
- Survey: Survey was done through questionnaire to identify the factors influencing the use of the mobile learning application

### **2.4.2. Secondary data**

Some data was acquired from existing sources of information through research articles published in different journals, magazines, and company websites, etc.

## **2.5. Questionnaire**

A questionnaire was developed with an objective to seek employee opinion about the factors influencing the use of mobile learning. Questionnaire has 21 items with two major sections, Section-1 for personal information of the employee and section-2 for mobile learning. Questionnaire comprises closed end questions and 5-point rating scale for selected questions.

## **2.6. Sample Design:**

For the study, customer facing employees of CDIT retail stores were selected as sampling units / points. Using random sampling method as sampling technique, the data was collected from sample size of 50 employees of CDIT retail stores by administering questionnaire.

## **2.7. Statistical Analysis:**

Using statistical tools like SPSS and Microsoft Excel, data collected was studied and evaluated.

## **2.8. Limitations**

1. Time constraint has prohibited from going deep into the subject
2. The scope of the study is confined to selected factors influencing the mobile learning
3. The information obtained or the collection of data is limited
4. Study is restricted to Employees at CDIT retail stores of Bangalore

## **3. Results and Analysis**

Data collected through questionnaire and observation is tabulated, analysed and interpreted. Data analysis and interpretation is divided into two sections,

1. Demographic profile of the sample group and
2. Factors influencing mobile learning.

### 3.1. Demographic Profile of the Sample Group:

Table No.1. Demographic profile of respondents

Description		Frequency	Percent
Gender	Male	39	78%
	Female	11	22%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Age Group	18 – 25	28	56%
	26 – 35	21	42%
	36 – 45	1	2%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Education	SSLC	2	4%
	PUC	3	6%
	ITI	3	6%
	Graduation	21	42%
	Diploma	1	2%
	Post-Graduation	20	40%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Department	Computer	13	26%
	Large Appliances	11	22%
	Small Appliances	4	8%
	Communication	10	20%
	Entertainment	12	24%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Experience	Less than 3 years	14	28%
	3-5 years	25	50%
	5-7 years	8	16%
	7-9 years	2	4%
	9 & Above	1	2%
	<b>Total</b>	<b>50</b>	<b>100%</b>

Source: Author compilation from survey data

As per the above table, 78% of respondents are Male and 22% are Female. 56% of respondents belong to 18-25 age group, 42% belong to 26-35 age group and one respondent (2%) is in the age group of 36-45. 42% of respondents have completed Graduation, 40% of the respondents have completed Post-Graduation and remaining 18% respondents have completed SSLC, PUC, ITI & Diploma. 26% of respondents are from Computer department, which comprises of laptops, desktops and computer accessories, 22% of respondents are from Large Appliances department which comprises of Refrigerator, ACs and Washing Machines, etc, 8% of respondents are from Small Appliances department which comprises of Food processors, Health & Personal care, Geysers and Microwave Oven, etc, 20% of respondents are from Communication department which comprises of Smartphones, Smartwatches and Mobile accessories and 24% of respondents are from Entertainment department which comprises of TV Panels and Home theatres. 28% of respondents have experience of less than 3 years, 50% of respondents have experience of 3-5 years, 16% of respondents have experience of 5-7 years, 4% of respondents have experience of 7-9 years and 2% of respondents have experience of 9-11 years.

### 3.2. Mobile Learning Factors

Table No.2. Factors influencing the use of Mobile Learning

Description		Frequency	Percent
Design & Layout	Excellent	18	36%
	Good	25	50%
	Average	6	12%
	Poor	1	2%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Contents in an Interesting Manner	Strongly Agree	17	34%
	Agree	23	46%
	Neutral	10	20%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Product Training Content	Strongly Agree	26	52%
	Agree	23	46%
	Neutral	1	2%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Assessments	Strongly Agree	22	44%
	Agree	16	32%
	Neutral	12	24%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Offers communication	Strongly Agree	13	26%
	Agree	24	48%
	Neutral	12	24%
	Dis-agree	1	2%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
New Updates	Strongly Agree	25	50%
	Agree	22	44%
	Neutral	3	6%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Relevant Topics	Strongly Agree	26	52%
	Agree	20	40%
	Neutral	4	8%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>
Useful Topics	Strongly Agree	22	44%
	Agree	23	46%
	Neutral	5	10%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>

<b>Helps improve Job Performance</b>	Strongly Agree	21	42%
	Agree	24	48%
	Neutral	5	10%
	Dis-agree	0	0%
	Strongly Dis-agree	0	0%
	<b>Total</b>	<b>50</b>	<b>100%</b>

**Source:** Author compilation from survey data

### 3.2.1. Design & Layout:

Design & Layout of the mobile learning is overall look and feel of the application which includes design of banners, types tiles, icons used for tiles, size of tiles & colors, font size and color, images, etc. 36% of respondents say that design & layout of mobile learning application is excellent, 50% of respondents are of the opinion that it is good, 12% of respondents say it is average and 2% of respondents say the design & layout is poor.

### 3.2.2. Contents in an Interesting Manner:

Contents broadcasted / assigned have to create interest among learners to read. Topic / subjects, session flow, language used, overall learning outcome factors make it interesting for the learners. 34% of respondents have strongly agreed & 46% of respondents have agreed that the content was presented in an interesting manner, whereas 20% of respondents have neither agreed nor disagreed that the content was presented in an interesting manner.

### 3.2.3. Product Training Content:

Product knowledge is critical for the retail store staffs hence product training becomes important. 52% of respondents have strongly agreed & 46% of respondents have agreed that the product training contents were informative and comprehensive to provide the necessary product knowledge to them, whereas 2% of respondents have neither agreed nor disagreed that the product training contents were informative and comprehensive.

### 3.2.4. Assessments:

Assessment post the training helps to evaluate the learning of the participant and impact of the training. Opinion of the respondents for the assessments broadcasted or assigned on mobile learning is that 44% have strongly agreed and 32% have agreed that assessments were relevant and helped to evaluate the improvement in knowledge, whereas 24% of respondents have neither agreed nor disagreed that the assessments were relevant and helped to evaluate the improvement in knowledge.

### 3.2.5. Offers Communication:

In retail, stores are geographically spread across different cities and retail as an industry is very dynamic and competitive. Retail companies come out with different offers on regular basis. In this regard, communicating

offers to customers is the need of the hour, however to do this store staffs should be aware of these offers, hence reaching stores staffs through mobile learning is faster, quicker and convenient. 26% of respondents have strongly agreed and 48% of respondents have agreed that the offers communication through mobile learning application has helped them to get to know and understand the offer. 24% of respondents have neither agreed nor disagreed that the offer communication through mobile learning is helpful, whereas 2% of respondents have dis-agreed that the offer communication is helpful.

### 3.2.6. New Updates:

Consumer Durable and Information Technology (CDIT) Retail stores sell different electronic products. There will be frequent changes in the technology and products, hence it becomes significant for retail store staffs to be acquaint with changes in the technology and products. 50% of respondents have strongly agreed and 44% of respondents have agreed that the new updates broadcasted on mobile learning have helped them gain knowledge about changes in the technology and products, whereas 6% of respondents have neither agreed nor disagreed that the new updates have helped them to knowabout changes in the technology and products.

### 3.2.7. Relevant Topics:

Topics assigned to learner on mobile learning have to be relevant to the employee job requirements. This plays an important role in creating interest among employees as to use it or not for learning purpose. 52% of respondents have strongly agreed and 40% of respondents have agreed that the topics were relevant to their job requirements, whereas 8% of respondents have neither agreed nor disagreed that the topics were relevant to their job requirements.

### 3.2.8. Useful Topics:

Topics assigned to learner on mobile learning has to useful for learners to gain knowledge, which in turn has to help in performing day to day work. 44% of respondents have strongly agreed and 46% of respondents have agreed that the topics assigned were useful whereas 10% of respondents have neither agreed nor disagreed that the topics were useful.

### 3.2.9. Helps improve Job Performance:

Overall, the success or acceptance or effectiveness of the mobile learning relies on how the content broadcasted has helped an employee to perform better in his or her job. 42% of the respondents have strongly agreed and 48% of respondents have agreed that the mobile learning helps improve job performance, whereas 10% of respondents have neither agreed nor disagreed that the mobile learning has helped to improve job performance.



### 3.3. Hypothesis testing:

Table.No. 3. Correlation Between Content, Product Training and Job performance

Correlations				
		Content	prod	job
Content	Pearson Correlation	1	.390**	.580**
	Sig. (2-tailed)		.005	.000
	N	50	50	50
Prod	Pearson Correlation	.390**	1	.444**
	Sig. (2-tailed)	.005		.001
	N	50	50	50
Job	Pearson Correlation	.580**	.444**	1
	Sig. (2-tailed)	.000	.001	
	N	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).				

**Source:** Author compilation from survey data

There exists a co-relationship between dependent variable i.e Job Performance and Independent variable i.e, Product Content for a population (n=50) with a correlation value of .444. Hence, null hypothesis is rejected and alternate hypothesis is accepted. Product content has positive impact on Job Performance.

Also, there exists a co-relationship between dependent variable i.e Job Performance and Independent variable i.e, Content factors for a population (n=50) with a correlation value of .580. Hence, null hypothesis is rejected and alternate hypothesis is accepted. Through product content and other contents assigned on mobile learning, an employee learns new products, new technology, refresh knowledge of existing products, this gets translated into a skill which an employee puts into practice by best of the class demonstration of product to customers, leading to increased sales.

## 4. Findings:

**4.1.** As per the study, 50% of respondents are of the opinion that the layout of mobile app is good and 12% of respondents say that it is average and 2% of respondents say that it is poor. This shows that there is positive opinion because 86% of respondents are of the opinion that it is good and excellent.

**4.2.** The study indicates overall 66% of respondents are of the opinion that there is still further scope of improvement in content to make it more interesting because 46% of respondents have agreed whereas 20% of respondents have neither agreed nor dis-agreed that contents in the mobile learning were presented in an interesting manner.

**4.3.** The study indicates that respondents have liked the content in terms of information and inclusiveness of what content goes into the product training content because 46% of respondents have agreed whereas 2% of

respondents have neither agreed nor dis-agreed that the product training contents were informative and comprehensive.

**4.4.** As per the study overall, 56% of the respondents are of the opinion that assessments broadcasted on mobile learning to be made more relevant and should help them in gaining knowledge. 32% of the respondents have agreed whereas 24% of the respondents have neither agreed nor agreed that the assessments were relevant and helpful.

**4.5.** As per the study overall, 72% of the respondents are of the opinion that offers broadcasted on mobile learning have to be made more relevant and should help them in their day to day work life in communicating the offers to customers. 48% of the respondents have agreed whereas 24% of the respondents have neither agreed nor agreed that the offers broadcasted on mobile learning were relevant and helpful.

**4.6.** The study indicates that there is diverse opinion about the new updates hosted on mobile learning because 50% of the respondents have strongly agreed whereas 44% have agreed and 6% have neither agreed nor dis-agreed that the new updates are relevant and helpful to them in gaining knowledge and make use in their day to day work life.

**4.7.** The study indicates that there is diverse opinion regarding the relevance of topics hosted on mobile learning. 52% of the respondents have strongly agreed, whereas 40% of the respondents have agreed and 8% of them have neither agreed nor dis-agreed that the content hosted on mobile learning were relevant to the task performed by them.

**4.8.** The study indicates that overall, 56% of the respondents are of the opinion that contents broadcasted on mobile learning require further improvements and make them more job specific. 46% of the respondents have agreed whereas 10% of the respondents have neither agreed nor disagreed that the contents were useful for their job.

**4.9.** From the data analysis, it is found that there is significant relationship between content and product training content on job performance of the employee.

## **5. Suggestion**

Based on the observation, analysis of the collected data and overall study, following are the suggestions –

### **5.1.Design & Layout:**

Overall design & layout of the mobile learning application has to be more user friendly, easy to navigate, creative, attractive and subject based tiles, easy to read fonts and font sizes, color theme should be user friendly.

## **5.2.Contents:**

The content presented on mobile learning has to be different from what is being used for classroom. On mobile learning, participant has to read on his/her own, analyze, interpret and understand the concepts, hence it becomes very significant to create content which creates interest among participants to do that content has to be bite sized modules, relevant topics, presented in a visually appealing with proper alignment, font, color and images. Overall, it has to be more of storytelling.

## **5.3.Product training content:**

Products have to be chosen basis the focus of the month at the company level, city / state specific, and products which have major impact on the business.

## **5.4.Assessment:**

Assessments after the content completion have to be from the content and error free so that it helps participants to recall and gain knowledge.

## **5.5.Offers:**

There has to be a main tile in the mobile learning as 'Offers' and with sub-tiles for category-wise offers. Offer has to be presented as what is the offer, applicability and validity. And a video on how the offer has to be communicated to the customer.

## **5.6.Useful Topics:**

To make topics hosted on mobile learning more relevant and useful for the participants, selection of topics / subjects has to be basis the training need identification and analysis, stakeholder or individual employee learning requirements and area / subjects which have overall business relevance.

## **4. Conclusion**

Companies especially retail companies work on thin margins, however considering the importance of product knowledge for the staffs, they invest money & efforts in training, which plays a vital role in creating unparalleled customer experience. Hence, companies expect return on investment by evaluating the effectiveness of the training interventions. Many companies have started exploring and adopting mobile learning as a learning platform. The study says that employees have liked the design & layout and overall content. Further studies can be conducted on other factors that influence the acceptance or effectiveness of the mobile learning.

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