TITLE: Employee's Learning and Development Investment

Through E-Learning in Pharmaceutical Industry

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RESEARCH ABSTRACT

As the world is changing and growing towards more technology based, organisations look

for a way to gain and maintain the competitive advantage in the market. The purpose of this

research paper is to examine why employees invest into e-learning as a learning and

development method. We need to understand, employee's necessity of upgrading their skills

and knowledge and what role does e-learning play when it comes to choosing it as a learning

method. E-learning has various benefits to it and also it impacts the overall business

productivity as well as individual's performance. This study will focus on individual's take on

e-learning and personal development. The research is conducted on employees to understand

the need of e-learning and do they believe that it has impacted their performance or not. It is

a descriptive research where different variables are analysed through quantitative research

method and data analysis.

Key Words: *E-learning, Learning and Development, skills and knowledge, performance,*

technology and learning methods.

INTRODUCTION

In this modern era, monotonous seminars are out and e-learning is in, that's what everyone

wants to believe in this technology lead world. The learning and development through e-

learning has become a solution for both new hires and current employees as organisation are

now looking to develop the best trained employees in the market. Gone are the days when

employers would train their employees in a traditional format like classroom learning which

dint even differentiated training and giving academic education.

Why the shift? The major shift came with the technology empowerment when every field

used it for upgradation then why not in the field of learning and development. The

customized feature even gave organisations to provide their employees with the best of

learning solutions with specialised knowledge and skill set which in turn enhance

performance and overall learning experience.

E-learning can be provided and delivered through various ways such as, virtual classrooms, emails, various apps available in smartphones, VOIP technologies like various social media platforms, skype etc. It makes it easier for someone who is not even employed yet wants to gain knowledge.

Individual want everything on the tip of their fingers as time is moving fast hence learning has to be done fast. Because of its reduced cost feature, no physical space provision it is making it easier for employees to explore more and more.

Training and development field has always been a concern at individual as well as at organisational level. Not only employers but even employees want themselves to perform better and have required skill set to sustain in the market and to grow in respective careers. Companies invest a lot in L&D part of the business because as they say the main asset to any organisation is their employees. To sustain the competitive market and fast-moving corporate world, employees are given at most priority for their learning and development.

E-learning as a training tool has given lot of advantages as well as disadvantages. In simple term it is a training method for workforce which could be on the job or at individual level through asynchronous learning and synchronous learning. The only difference is latter has the ability to interact in real time with the learner and the former is more technology equipped like created videos, animations etc. The data driven world is continuously transforming and individuals equip themselves with required skills and due to this employee focus on investing more time and money into learning.

Why do employees choose this learning method?

The answer to this question is numerous and through this research we would exactly try to find that what is the significance of e-learning as a learning method and why do employees invest into it so much. There are times when employers want their employees to learn and have a certain skill set and there are times when employees feel that there is a requirement to build up more knowledge and to grow. We need to understand that employees or individuals have accepted the shift but have they gained and implemented at their work or for their task or not? Or do they believe that this is one of the successful learning methods or not?

Learning is a continuous process whether you belong to entry level, or at the top level. Elearning is an effective way for immediate and also specific topic related learning. Development for employee helps in gaining new abilities and skill for their own personal growth. It helps in developing for the current task or a job as well as for the future roles and responsibilities. Competition amongst employers does impact employees as it acts as a value

addition and they feel there is a need to build up knowledge and improve skills to showcase their quality of knowledge and take a lead in the market.

Benefits of E-Learning

As it is mentioned in (*Behrouzian and Nejad 2011*), It helps to transfer the information and knowledge to employees directly which helps in organisation effectiveness and productivity. For most of the organisation what improves individual's development directly impacts organisation's performance, satisfaction, quality of products and services and effective management, success and profits. E-learning programmes are designed in such a way that it can be used anytime anywhere. The learning speed is much faster than the traditional method and it can also be focused on personal preference and personal growth. These are also time to time updated according to requirement and demand of the market which are based on current market trends. If employees are able to understand better and quickly then the implementation would also be done in the right way. E-learning could be focused for a group of individuals as well for an employee's personal learning method.

Training and development arecommonly used in a business context, and the traditional meaning has evolved several times as traditionally it belonged to trainers and employers and now it focuses on not only transferring skills and knowledge but more on personal development. Employees are now ready to invest to learn and develop and there are various reasons to it.

Limitations of e-learning to employees

The major drawback for e-learning at any organization could be the acceptance of senior employees as they must be not used to the culture of digitalization and web learning and so on which today's generation is fully surrounded with. Some working professional might not be ready to invest their time and money dues to various other priorities, especially for those who belong to senior level may not be satisfied with the method of learning. Still a majority might look for a face to face interaction which is not available through e-learning as these are mainly pre designed and structured courses. Those employees which are less motivated may not be able to keep up with the fast pace nature of e-learning as there are times when there is not time restriction and is more flexible so

RESEARCH OBEJECTIVES

PRIMARY OBJECTIVE

• To understand working professional's, invest in learning and development through elearning

SECONDARY OBJECTIVE

- To understand employee's, invest on e- learning as one of the learning methods
- To identify various e-learning benefits.
- To identify the various factors due to which employees enrol themselves for these online courses and trainings.

RESEARCH HYPOTHESIS

HO1: E-learning does not help in upgrading skills and knowledge

HA1: E-learning does help in upgrading skills and knowledge

HO2: Do employees believe that e-learning hasn't improved their performance

HA2: Do employees believe that e-learning has improved their performance

REVIEW OF LITERATURE

E-Learning has been into learning context over decades now. Individuals are well aware about the term and are expecting to grow more and more. Lot of research has already been done on various aspects related to e-learning be it having a positive or a negative impact. To understand this context e-learning itself needs to be clear. In this growing economy training and development is need for organisation to sustain with the workforce in the market. (*Rashidi et al 2004*) stated that the term e-learning includes wide range of contexts like webbased learning, computer-based learning, virtual classrooms and electronic collaboration. According to (Atiknson, Howells, Reilly and Ross 2012), E-learning is defined as any practice which is used for learning and development over the internet, or any electronic source.

According to (*Chen 2008*), e-learning is basically combining the literature or a technical study with the help of technology, which can be used to deliver and communicate information and pass on the information through computer support learning for learners. According to (*Rovai, 2002*), **Asynchronous learning** is an e-learning method which provides

instruction based on online and it can be accessible from anywhere around the world which is not something which classroom training can ever provide. It provides great amount of satisfaction when it comes it flexibility. Corporate e-learning depends upon company to company. There are some which uses as one of the effective methods of learning and development for their employees and are some who uses this type of method to reduce their L&D cost. The emergence of online learning, digital e-books, digital collaborative learning was mentioned by (*Bonk 2011*).

There are large global companies which uses a virtual university and a Learning Management system (LMS) which is developed to train their employees and help them in upskilling and upgrading with the trends and knowledge. Organisation now invest a lot in training workforce as the business works only when the workforce knowledge is immense and strong enough.

(*Farhadi 2005*) divided into **various categories of e-learning** domain like web-based learning, computer based learning feature, learning through mobile phones as there has been a huge increase in usage of smart phones and various other digital tools.

(*Behrouzian and Nejad 2011*) mentioned **various benefits to e-learning** like how it decreases training cost, these are only used when it is required, these can be used anytime and anywhere. In this new era, e-learning has a lot of potential to improve the way an individual learns and develop. Today's technology is fast growing and hence there is a need for fast learning. Information has become more dynamic and challenging in this competitive world.

Individuals/employees/employers look forward to invest their time and money to learn and develop. (*Hammond 2001*) mentioned that almost 80% of top 500 Forbes listed companies uses this format of learning and they expect a better RO1 from their employees. There have been lot of discussions on flexibility and how it helps in deliver and in the pace and distribution of learning. (*Dringus 2000*) discusses that it depends upon an individual to be self-motivated and infuse a self-learning directive in order to achieve higher learning success.

E-Learning and the corporate world

Organisations have been shrinking their T&D cost and budget but are expecting skilled and updated workforce. hence e-learning seems to be preferred learning method for both employees as well as for the employers. Employees can easily access various sites and learning resources and have a track on course completion rate. According to (Chen

2008), **Synchronous learning** has emerged as one of the best e-learning methods which as there is a web-based interaction which takes place between the instructor and the learner.

E-learning and the working professionals

Corporate training plays very important role in an employee's career. It is given to ensure that an employee has certain skill set and knowledge for the particular job or a task. The major characteristics are it is continuously evolving and fast paced, it focuses on career of individuals, it benefits the employee as well as organisation, it focuses on training and not the education part of it and it is known as one of the best ROI. E-learning makes it more efficient for business to conduct various seminars or ask their employees to enrol themselves for required skills.

(Rodger Faherty) has mentioned e-learning is a viable training option for organisations those who want to quickly respond to the constantly changing world/technology. The mains reason to foster the need of e-learning is because of evolutionary nature of technology. E-learning provides large number of products and services to meet the challenging demands of changing technology.

(*Judith Strother*,2002) e-learning is continuously being proved the most efficient method of training as it is cheaper in cost as compared to other traditional methods, it is a faster process and at the same time one can access the required data which geographically available Through e-learning we can cover more employees that too in less time. Another vital tool which is present here is that data it can be reviewed and edited as the technology changes. (*Shu Ching Yang*,2011) mentioned that Exciting educational opportunities, made possible by advanced technologies, are coming up for those having difficulty in following traditional instructions.

Pharmaceutical E-learning: Global Trend

E-learning has its presence over number of decades in foreign countries and not it has been implemented in Indian environment. It is used as a training method instead of monotonous learning. The pharma industry id dynamic in nature and that's why employee working related to it need to be updated at a frequent basis. A well designed e-learning course can help an employee to gain knowledge and to perform with the help of the implementation of e-learning and this is already in the process when it comes to pharmaceutical industries.

Research Gap

Lot of study has been done in recent time related to e-learning. E-learning is not a small term which only covers the context of online courses rather it has grown into a phenomenon and as a learning and development tool for most of the organisations as well as for individuals. (Schriver and Giles 1999) mentioned that there has been a lot of focus on cost structure when it comes to reducing the cost of travel, time away from the task or a job, and majorly focusing on larger audience in compare to a specific individual.

But in contrast, (*Teng,Bonk,Kin 2009*) suggested that the major issue because of which some individual feels that e-learning has not been a success is because of employees and their lack of exposures. Evaluation of concentration and employee focus is something which is tough to analyse and have a conclusion. E-learning at its own pace and its flexible nature gives employees to have a more personal pattern of learning method.

There has always been a discussion on whether it has positive impacts or disadvantage to it. At one corner it gives the freedom of choices and availability of knowledge, it is useful for those geographically dispersed, who work from home, who have working non-standard hours but on other corner we lose the personal touch. As we are growing, we talk about building more personal touch in organisation and terms like involvement and engagement then why there is less personal interaction when it comes to E-learning. (Masie 2001), stated that learners experience and learner's acceptance cannot be guaranteed and at some point, it will require the upper hand of organisation and employers to encourage, support and state advantages of learning and developing.

Researchers have been able to find various benefits to e-learning in the corporate environment and for working professionals. We will be studying through employee's point of view as to why employee invest into learning and development through e-learning in pharmaceutical sector. Organisations follow various type of learning methods for training and developing but what is the significant role does e-learning play when it comes to employee training.

Employee experience and employee performance can only be analysed when employees believe that they have implemented whatever they have learned and when they feel that it has given them RO1 for all time and the money that they have invested.

RESEARCH METHODOLOGY

DATA COLLECTION METHOD

Data was collected through a survey method which was conducted online and through online articles. This research was based on the primary data which is collected from the people working in various organisation through structured questionnaire. The research method which was used is *Quantitative method and a descriptive research design*. The area of research was pharmaceutical companies based in Goa and sampling technique which was used was *Non-probability sampling, snowball sampling and convenient sampling*. The sampling unit were employees working and the total number of respondents were 109. *Chi square test* was used as a statistical tool.

DATA ANALYSIS AND DATA INTERPRETATION

CRONBACH'S ALPHA

Case Processing Summary

		N	%
Cases	Valid	109	100.0
	Excluded ^a	0	.0
	Total	109	100.0

Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.745	17
.745	17

Table 1: Cronbach's Alpha Test

A Questionnaire was employed to measure different underlying constructs. The scale had a high level/satisfactory level of internal consistency as determined by Cronbach Alpha of 0.745. We understand that the questionnaire is reliable and acceptable.

DESCRIPTIVE ANALYSIS

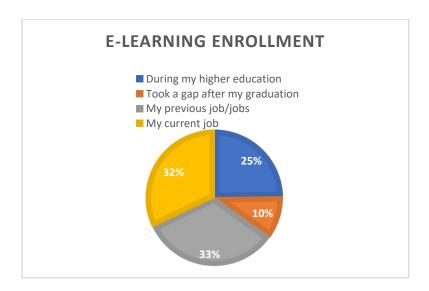


Figure1: E-Learning Enrolment

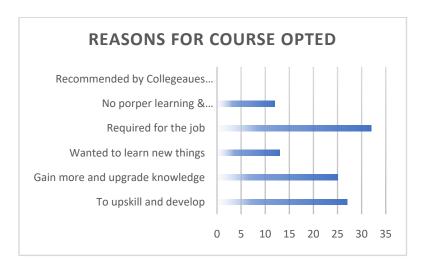


Figure 2: Reasons for course opted

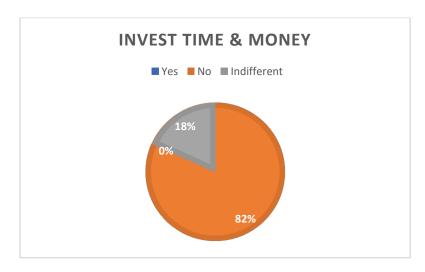


Figure3: Invest time and money

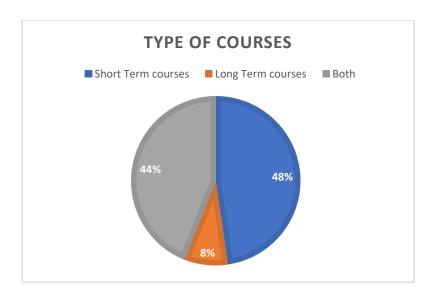


Figure 4: Type of courses



Figure 5: E-Learning at Organization

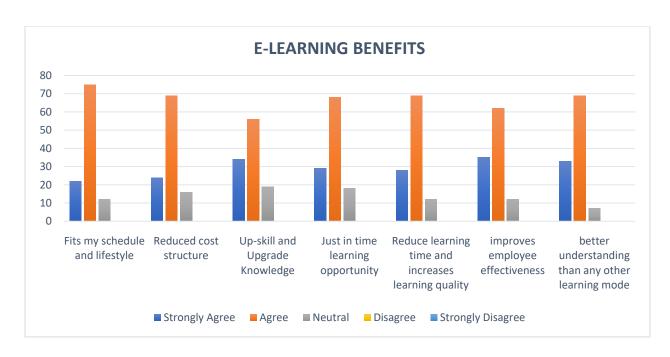


Figure 6: Benefits of e-learning

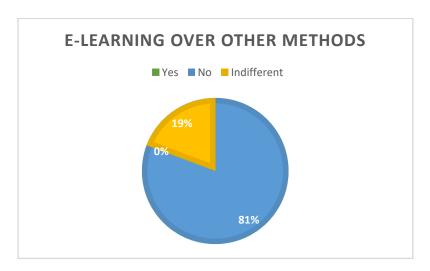


Figure 12: E-learning v/s other methods

The above descriptive analysis helps us to understand the overall view towards e-learning in respect to employees working in a pharmaceutical company. 60% of them belonged to 31-35 years of age group and had 5-10 years of experience. 33% of them enrolled to e-learning during their previous jobs and 32% for current jobs. 32% of Employees said they wanted gain more knowledge and 29% said that it was required for the job. 82% of them believe that they would invest time and money and 48% of them have enrolled for short term type of courses. 46% of the respondents stated that they are provided web learnings on intranet in their respective organisations. For the benefits, respondents have rated 4 which means they agree

to these benefits of e-learning. 55% of the respondents rated 4 for how much learning they have gained from e-learning, 52% of respondents rated 4 for learnings which they have implemented and 555 of respondents rated 4 for whether it has impacted their performance. 81% of respondents said they would choose e-learning over other learning methods.

STASTICAL ANALYSIS USING SPSS

AGE * YEARS Crosstabulation

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		0-2 years	10 or above years	2-5 years	5-10 years	Total
AGE	22-25 years of age	15	0	1	0	16
	26-30 years of age	0	0	17	0	17
	31-35 years of age	0	0	0	65	65
	35 years and above	0	11	0	0	11
Total		15	11	18	65	109

Table 2: Crosstabulation of Age Group and years of experience

HYPOTHESIS 1

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.105 ^a	4	.392
Likelihood Ratio	4.184	4	.382
Linear-by-Linear Association	2.603	1	.107
N of Valid Cases	109		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 3.31.

Table 3: Gained and Upskilling

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.213 ^a	4	.697
Likelihood Ratio	2.244	4	.691
Linear-by-Linear Association	.020	1	.888
N of Valid Cases	109		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 2.09.

Table 4: Gained and schedule

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.309 ^a	4	.366
Likelihood Ratio	4.726	4	.317
Linear-by-Linear Association	2.717	1	.099
N of Valid Cases	109		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 2.79.

Table 5: Gained and cost

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.141 ^a	4	.387
Likelihood Ratio	4.074	4	.396
Linear-by-Linear Association	3.075	1	.079
N of Valid Cases	109		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 3.14.

Table 6: Gained and Just-In-Time

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.508ª	4	.050
Likelihood Ratio	10.266	4	.036
Linear-by-Linear Association	5.725	1	.017
N of Valid Cases	109		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 2.09.

Table 7: Gained and Learning time

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.376 ^a	4	.117
Likelihood Ratio	7.489	4	.112
Linear-by-Linear Association	1.351	1	.245
N of Valid Cases	109		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is 2.09.

Table 8: Gained and Employee effectiveness

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.217 ^a	4	.016
Likelihood Ratio	14.622	4	.006
Linear-by-Linear Association	1.036	1	.309
N of Valid Cases	109		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.22.

Table 9: Gained and Better understanding

Chi Square test is conducted to check the significant relation between Gained learning and Upskill and upgrading knowledge, the p=0.392>0.05, hence we accept the null hypothesis that e-learning does not help in upgrading skills and knowledge.

To justify, the chi square test was done on all the parameters of benefits to e-learning and it can be seen that e-learning does not only help in upgrading skills and knowledge but it also has various benefits and that is why it does not have significant relation with any one variable.

HYPOTHESIS 2

PERFORMANCE * IMPLEMENTED Crosstabulation

		IMPLEMENTED					
			2	3	4	5	Total
PERFORMANCE	2	Count	4	0	0	0	4
		Expected Count	.2	.9	2.1	.8	4.0
	3	Count	1	16	6	0	23
		Expected Count	1.3	5.3	12.0	4.4	23.0
	4	Count	1	8	49	2	60
		Expected Count	3.3	13.8	31.4	11.6	60.0
	5	Count	0	1	2	19	22
		Expected Count	1.2	5.0	11.5	4.2	22.0
Total		Count	6	25	57	21	109
		Expected Count	6.0	25.0	57.0	21.0	109.0

Table 10: Performance and Implemented Crosstabulation

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	183.518ª	9	.000
Likelihood Ratio	122.258	9	.000
Linear-by-Linear Association	68.045	1	.000
N of Valid Cases	109		

a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is .22.

Table 11: Performance Chi square test

Chi Square test is conducted to check the significant relation between performance and implementation of e-learning, the p=0.00<0.05, hence we accept the alternative hypothesis that employees do believe that e-learning improved their performance.

FINDINGS

To analyse whether e-learning helps in upskilling and upgrading knowledge and to check do employees actually believe that employee performance is improved through e-learning, Chi square test was used to analyse the data. Through the data analysis we understand there isn't a single significant relationship between two variables for the hypothesis 1 as there are various other parameters which are involved and due to which we had to accept the null hypothesis. Employees do feel that e-learning or gaining extra knowledge has improved their performance even though it did not help in upgrading skills and knowledge. For both the

hypothesis, two variables were used to analyse. For hypothesis 1, gained and upskill variable where the data was collected based on the upskilling as one of the benefits to e-learning and have whatever they gained anything through e-learning. To justify the hypothesis other parameter of benefits were analysed. For hypothesis 2, implemented and performance variable was used to analyse. Through the analysis we understood that there is a need of e-learning in pharmaceutical as around 33% and 32% of employees enrolled for their previous jobs and current jobs. 12 employees stated that they have enrolled for e-learning because there were no proper L&D programmes in their organization. E-learning is implemented and 81% of employees recommend e-learning over other method.

RECOMMENDATIONS

Job specific upskilling:

Various programmes could be introduced for various job level. The whole upskilling activity could be more narrowed down and should be specific to the job then only employees would believe that they have upskill and upgrade knowledge. Through intranet learnings could be easily accessible to all the employees and moreover which are related to their growth and development. Certification programmes can also be encouraged which will drive employees to learn and get the feeling of accomplishment. This will in turn increase in better performance of employees. So here it could be more focus on job skills.

Personalized upskilling plan:

Creating an individual plan for employees would help them to understand which are the skills they need to acquire and which are their strong areas. It could be based on their personal interest, talents and choices. Employees will willingly learn if they are provided with what they wish to learn. This recommendation would have to prepare with lot of technicalities and details and could be helpful in long run. It might also take time to be implemented but once it is done it could be very effective.

LIMITATION OF THE STUDY

Due to the current pandemic situation the research was conducted online through survey instead of field study and also the data is based not employee's perception rather than the factual information.

CONCLUSION

In this present era of fast-moving world, employees work to earn money and also to grow and develop themselves therefore organization and various sources of e-learning should be more promoted and encouraged. Employees and various professional now look to learn in an easier and faster way. These courses could be free and also available for much reduced price as compare to other learning methods and also could be provided at organization level. The major concern could be the basic availability of internet speed and medium for e-learning and this is something which is highly promoted by government and authorities.

E-learning is at that level which is now implemented and accepted by professions with its benefits. E-learning has become a large phenomenon rather than an education term. It is mostly now included as one of the L&D programmes at various levels. Large amount of information and data to learn is available for professionals and even employers look to develop according to their requirements. Employees and professionals invest time and money to update their resume and CV to keep up with the competitive employee market. The results and analysis also show that there are various parameters to gain knowledge through elearning and employees believe that implemented e-learning improved their performance. The research helps in understanding the perception of employees working in a pharmaceutical industry towards e-learning. We get to know the benefits, whether they have gained anything, implemented those learnings and improved their performance and thoroughly based on what employees feel about e-learning. E-learning at all learning levels should be implemented and promoted, and employees should be encouraged enough to take up courses and enhance their skills and upgrade knowledge.

DISCUSSION

Findings provides positive result when it comes to the performance of employees as we get to know that there is an impact of e-learning on performance but not through upskilling because we couldn't find the significance of upskilling in compare to other parameters of benefits. For an employee to believe that their performance has improved could be very in bias in nature. Performance cannot be depended on one parameter as there are various parameters that could lead to an employee's performance and this will also depend upon individual to individual. E-learning is now being consider as one of the learning methods in organisation and specifically in pharmaceutical company, so employees are aware about it and are preferring it as their learning method. E-learning is directly linked with growth and development and organisation

encourage their employees to learn more and enhance their skill so that the value of an employee increases with the value of an organisation in the market. During the current situation of pandemic, there has been an increase in the usage of online and majority of them are availing this time to upskill and develop because growth, development and learning is a continuous process. Employees are not reluctant in investing time and money into e-learning as learning is part of our lives and at a professional level it helps in adding value. In future the study could be specific to upskilling and learning through e-learning and how the other benefit parameters are directly related to learning implemented by e-learning.

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Date: 31st August 2020

Place: Pune

(Signature of candidate)

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