

A STUDY ON THE DEVELOPMENT AND DEPLOYMENT STRATEGY IN E MANAGEMENT

M.G. Loganathan

Department of Business Administration, Government Thirumagal Mills College, Gudiyattam, Tamil Nadu
mglogan27@gmail.com

ABSTRACT

“E” is a buzz letter for today’s governance not only in private sector but also in government agencies and ministries. However the importance of “E” is not understood clearly by the honchos in business and governance. When Email started the letter “E” became prominent and it was christened as Electronic mail. Over the years, all transactions were brought under the “E” umbrella labelling it as E-submission, E-verification, E-meeting, E-learning etc., However “E” cannot be prefixed to all transactions since “E” has its own limitations which needs to be understood by all stakeholders. Electronic mail became a convenient mode for communication which was hitherto unknown since the message can be received by the recipient instantly. This brought in email culture across the populace. Over a period of time, corporate sector thought that there were instances of industrial espionage and brought in technology to filter the Emails. The real challenge commenced and subsequently even important mails got filtered which created business impact. In the academic scenario, E-learning platforms started to commence from the year 2010 onwards. These were basically online certification programs which were offered for a nominal fee. Subsequently the Indian taxation regime came under E-submission mode for both corporate and individual tax payers. The electronic submission which was thought as a paperless, seamless and tireless for both the users and the recipient became a challenge since hard copies were also required to be maintained in certain instances for compliance purposes. Thus “E” became a exigency rather than an enduring concept both in business and academia. In between the word “online” started to creep into the business and academic system. The question that arise is whether “E and online” are synonymous or they refer to two distinct categories of transactions. The answer is not very clear since “E” and “Online” are used interchangeably without understanding the perspective. In corporate sector, for meetings they always use the word “virtual”. Certainly virtual is not an antonym of “personal”. The word “virtual” has a bonhomie with the Information Technology sector and started gaining prominence. The author has studied the Electronic methodology that has become prominent in today’s business and has evolved a mechanism for development and deployment, paving the way for E Management. The crux of the problem is that not many are privy to the background on the usage of jargons. The words appear and continued to hog the limelight for ever.

Keywords: Electronic mail, E-learning, Online, business impact, Virtual, Meetings

Introduction

Traditionally management is efficient management of resources. Resources include human, technology, infrastructure and work environment. During the era prior to 1990’s manufacturing sector was the core sector in Indian industrial scene. There were multiple process industries across the country and Tamilnadu too had its share of process industries mainly in the automotive, textile and pharmaceutical sectors. Post 1990 there was a revolution in the area of information technology (IT) and business process reengineering emerged. One need to understand between automation and electronic processes. Automation was already in the industrial scene with Computer Numerically Controlled machines (CNC) and also microprocessor based process control equipments used by the pharmaceutical and chemical sectors. The big process change started with electronic mail called in short as

Email, wherein the desired information is transmitted to the recipient in a matter of few seconds. Traditionally the information transfer was carried out through fax mechanism which was considered as real time. Email has outweighed the utility of fax in terms of managing the recipients and the message addressed to the concerned person or involving a group of persons. Thus the electronic or “E” messaging system came into prominence. After the emergence of IT, process industries too adopted IT for their internal departments comprising of human resources, finance, purchase, sales and administration. They either built an in-house application or procured it from a service provider. The business leaders were looking at niche approach and quickly adopted to IT without much deliberation. IT is always an investment for an organisation and in the long run it will be a real challenge for any organisation to withstand the same. Business reoriented itself to look at the utility

of IT rather than investment. Traditionally reports were prepared using a typewriter and graphical analysis was a manual operation. IT enabled the industry to generate graphs and prepare, modify and archive reports which were not possible before the IT era. Then software penetrated the business environment and branding catapulted the usage of a particular software. The decade from the year 1990 to 2000 saw a plethora of changes in the entire business segment and also in the governance. Indian railways which provide service to lakhs of passengers everyday embarked on computer based tickets instead of manual tickets. The boom in the IT sector towards the beginning of the year 2000 saw a multitude of changes in the business processes. The IT sector was providing their services to the clients based in USA, Europe and Middle East and they were able to adopt the changes without much hiccups. But the process industry took time to adopt to the new methodology involving IT since its not the business process alone but the financial impact. During the period commencing from 2007 even educational institutions started using IT. Ofcourse the initiators were the private educational institutions. E-learning was branded and E-book came into existence. Subsequently all the sectors started looking at E-enabled services to woo customers. The flip side of this approach was that there no defined methodology undertaken by them. Many times the customers were made to face the ignominy of poor service or incurring penalty for no fault from their side. Even after two decades, systems in telecom sector are precarious and the customer is forced to pay penalty. The systems in telecom sector are built in such a manner which does not allow the service provider to trace the transactions. The author has made attempt to study the concept of E Management across multiple sectors using the exploratory approach primarily. However, where respondents are required, descriptive research approach has been used with a defined sample. Finally the author has proposed a model for development and deployment strategy for E- Management.

Statement of the Problem

Drug management is a new area and the factors related to drug management needs to be understood in detail. The author's intention is to understand the concept and popularise this subject in the long term. In India there are a number of pharmaceutical companies and all of them manufactures multiple products. The author's intention is to analyse the factors and provide suggestions towards drug management

Objectives of the study

- To identify the issues and challenges in E Management
- To understand the relationship between organisational factors and challenges in E Management
- To understand the relationship between organisational factors and business sector in E management

Scope of the Study

The present study is focused on E Management of business sectors in Chennai. This comprises of process industries, Small and Medium Enterprises(SME), Banking and IT sector. From the governance perspective taxation sector has been identified.

Research Methodology

The author has adopted an exploratory method for the present study. Primary data was collected using a questionnaire to 50 companies in Tamilnadu comprising all the sectors. Respondents were selected based on random sampling. Secondary data was compiled using the information available in the journals and published articles. Data was analysed using statistical tests comprising of one way ANOVA and Bi-variate correlation.

Limitations Of The Study

The present study is restricted to Tamilnadu only. The number of respondents is restricted to fifty only comprising of all the business sectors. A separate study for each sector is not included in the scope of present study.

Hypothesis For The Study

The following are the proposed hypothesis framed by the researcher for this study.

1. There is no significant relationship between demographic variables and challenges in

E-Management

2. There is no significant relationship between demographic variables and implementation factors in E-Management

Review of Literature

There are no direct references related to the study though there are articles pertaining to different facets of management. The well known Deming’s Wheel also known as Plan, Do, Check, Act (PDCA) approach needs to be followed for both development and deployment. But each organisation is unique and they follow their own unique process. Change is inevitable for any organisation and business impact analysis needs to be carried out. Organisations rush to adopt technology in order to show their operational excellence. E-Management is based on data and the subtle difference is management of activities can be done remotely. Before we proceed we need to understand the concepts in E-Management.

- a. **Virtual** – This is opposite of physical or personal. Virtual management means another form of remote management
- b. **Remote** – This means distant. It is Management from a distant location
- c. **Online** – This is one of the method for E-Management
- d. **Work from home (WFH)** – This is another form of remote management
- e. **Development** – Understanding the concept with reference to a business sector and carry out a pilot study
- f. **Deployment** – To implement the tested approach across the organisation.

g. **E-Management** – Management of business functions in electronic mode with/without physical presence.

Issues and Challenges in E-Management

E-Management as term connotes management in electronic mode. There are numerous challenges pertaining to data availability and data integrity. All activities like recruitment, appraisal and exits can routed through E-Management provided there is a mechanism for objective assessment of human resources. Even after face to face interviews, employees performance does not match with the interview record. E-management will prove to be a bottle neck for identifying employees skills. Even for purchasing a component, the screen version seen during the online meetings, does not match with the original component. There will be a mismatch of requirements with impact on cost. The challenge is for SME and Tier II and Tier III companies are investment and resources to carry out E-Management.

Analysis and Interpretation

The data collected was subjected to one way ANOVA. The factors that affect development and deployment that were considered are:

- Cost
- Availability
- Return on Investment
- Capacity planning
- Risk management
- Compliance
- Effectiveness

The results are tabulated in Table 1

	Sum of Squares	df	Mean Square	F	Sig.
Gender	1.071	10	0.107	0.382	0.947
	10.929	39	0.28		
Age	11.619	10	1.162	1.273	0.279
	35.601	39	0.913		
Industry type	14.154	10	1.415	1.314	0.258
	42.026	39	1.078		
Process type	2.347	10	0.235	0.908	0.535
	10.073	39	0.258		
Process Vertical	5.802	10	0.58	0.864	0.573
	26.198	39	0.672		

Table 1

Inference

The results in the above table indicate that the F values are less than P values at 5% level of significance. The null hypothesis is accepted and it can be inferred that there is no

significant relationship between demographic variables and challenges in E-Management One way ANOVA for implementation in E-Management

Gender	3.174	8	0.397	1.843	0.947
	8.826	41	0.215		
Age	5.996	8	0.75	0.745	0.651
	41.224	41	1.005		
Industry type	5.376	8	0.672	0.542	0.818
	50.804	41	1.239		
Process type	1.647	8	0.206	0.784	0.619
	10.773	41	0.263		
Process Vertical	7.294	8	0.912	1.513	0.183
	24.706	41	0.603		

Table 2

Inference

Based on the above table, it can be inferred that the observed values of F are less than p values at 5% level of significance. Hence the null hypothesis is accepted. Hence there is no significant relationship between demographic

variables and implementation factors in E-Management.

The results of bi-variate correlation for factors influencing E-Management are shown in table 3

		Less time for activities	Par with industry peers	Technology adoption	Better team management
Less time for activities	Pearson Correlation	1	0.119	-0.061	-0.069
	Sig. (2-tailed)		0.411	0.674	0.636
	N	50	50	50	50
Par with industry peers	Pearson Correlation	0.119	1	0.341	-0.123
	Sig. (2-tailed)	0.411		0.015	0.395
	N	50	50	50	50
Technology adoption	Pearson Correlation	-0.061	-0.341	1	0.057
	Sig. (2-tailed)	0.674	0.015		0.693
	N	50	50	50	50
Better team management	Pearson Correlation	-0.069	-0.123	0.057	1
	Sig. (2-tailed)	0.636	0.395	0.693	
	N	50	50	50	50

Table 3

Inference

It is observed that there is ideal correlation observed between the factors influencing E-Management and business process at 0.05 level of significance. Similarly, there is good correlation among few other variables related

to the factors influencing E-Management. However some variables have negative correlation too.

The results of bi-variate correlation for factors affecting E-Management are shown in table 4

		Lack of transparency	Lack of factual based decision making	Lack of opportunity to exhibit linguistic skills	More dependency on human resources
Lack of transparency	Pearson Correlation	1	0.008	-0.02	-0.218
	Sig. (2-tailed)		0.957	0.889	0.128
	N	50	50	50	50
Lack of factual based decision making	Pearson Correlation	0.008	1	-0.057	0.128
	Sig. (2-tailed)	0.957		0.696	0.376
	N	50	50	50	50
Lack of opportunity to exhibit linguistic skills	Pearson Correlation	-0.02	-0.057	1	-0.054
	Sig. (2-tailed)	0.889	0.696		0.711
	N	50	50	50	50
More dependency on human resources	Pearson Correlation	-0.218	0.128	-0.054	1
	Sig. (2-tailed)	0.128	0.376	0.711	
	N	50	50	50	50

Table 4

Inference

From the above table it can be inferred that there are both positive and negative correlation for the factors influencing and affecting E-Management. It can be inferred that none of the variables related to the factors affecting E-Management is significant at 0.05 level of significance. Hence there is no significant relationship between the factors among the factors affecting E-Management.

Summary and Conclusion

The study reveals that the issues and challenges in the factors influencing and affecting E-Management has shown that E-Management is a distant dream for any organisation. Though the organisation can save money, time and space but in reality it cannot achieve the desired results. Development of E-Management can be strategized and implemented using quality frameworks and other best of breed models. However the real challenge is in the implementation. The implementation of process model in an organisation is to usher in best practices to ensure that the activities are process based rather than person based. In any organisation, human resources are dynamic and their mobility cannot be controlled. If E-Management is to be implemented effectively, there needs to be a skilled resource to manage the infrastructure and ensure that the data is

safe and secure. The three attributes of information security – confidentiality, integrity and availability needs to be considered. Though IT companies can claim that IT resources are based in the cloud environment and presence of human resources is not a mandatory requirement. Usage of cloud infrastructure involves cost and this would impact the operations of the Tier II and Tier III companies. The big companies can afford to host the data in the cloud but the human resources will be accessing through a remote environment and there is a possibility of data loss. Though surveillance camera and monitoring tools can be used, it adds to the operational cost of an organisation. For any organisation, the core requirement is return on investment. Return on Investment using E-Management strategy will be negligible. The development strategy should use PDCA methodology and deployment strategy for E-Management should be module based and should not adopt a big bang approach. Based on the study in Tamilnadu, it can be inferred that there are multiple challenges for the users and customers and E-Management will take at least another decade to stabilise. The organisation should endeavour to utilise the skills of the human resources to their maximum potential and bring the best in them. The core challenge will be utilising human resources skills versus E-Management.

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