E-Commerce and Standardisation
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Introduction

The basic objective of standardisation is to have the most efficient utilisation of aggregate resources. Ever since the existence of life, the total amount of resources have been predefined and thus limited. Inspite of this, the most crucial resource has always been human beings themselves. Thus, the art of standardisation has always focused on utilisation of human resource in a better way.

The paper explores how different eras have helped in standardisation. The process of standardisation started right from the time when civilisation started. The paper takes a look at the life cycle of standardisation right from the wealth of nations written by Adam Smith to the world of ecommerce. Though most events overlap each other in pure time scale terms, their very occurrence is a movement towards standardisation.

The paper also goes on to point out the broad implication of continued standardisation and its impact on market forces

The start of Standardisation

Adam Smith first captured the concept of standardisation in his famous book, A guide to the wealth of Nations. He captured the division of labour that existed in a village economy. He further went on to talk about how the invisible hand always took care of appropriate distribution of resources based on effort. It soon became an economy where there were blacksmiths, Cobblers and farmers, each one being paid for his own operations. Thus, essentially what was happening was the first step towards standardisation – The standardisation of work.

As the civilisation grew, different economies emerged. The next big step in standardisation came with F.W. Taylor’s time and motion studies. He found out that there is a most optimum motion pattern for performing an activity, which maximises the output of that person. Thus with him came the standardisation of activities within each work.

Eventually as activities got more and more complicated, specialised people were developed for a job. People were provided with high quality training and education to perform specific tasks. The era of professionals began. Looking at it closely, it can also be called as the standardisation of people.

Parallel to all of the above happening, corporations had begun to grow in strength and number. Very soon they began to have a significant impact on the economy. The capitalist economies soon found its corporations being run by C. K. Prahalads theory of “core competencies”. Companies were focusing on their core strength, and everything else was being woven around it. It was the start of the standardisation of corporations.
Information Technology and Standardisation

Till this time information technology (IT) didn’t play a significant role in standardisation. As organisation grew in size and competition increased, corporations were being forced to have the best price performance in each of their resource utilisation. Soon a lot of processes were standardised within an organisation, right from financial record maintenance to Material resource planning (MRP) to Khanban systems. As work became more and more routine, and its span increased, 3 departments, namely inventory and production, Finance and personal were the first on the list of computerisation. MRP II, Financial accounting software (FAS), Payroll package made there impacts felt in these departments. This was the first big step of an organised entry of information technology into the corporations. It was the standardisation of departments in the corporation.

The next logical step for any corporation was to expand the concept of standardisation to all departments across the organisation. Since each department in any corporation is linked to another department, a complete suit called the enterprise resource planning (ERP) led to the standardisation of work practices. The ERP was the single most important contribution of IT to the expansion of standardisation. Now all systems within a corporation were governed by from single point architecture of system.

When the ERP first came into existence each corporation had an attitude of being different from the rest of the pack and thus, each organisation needed its own specific made ERP to govern its systems. Given the primitive state of development of the ERPs in the market, this was also true to a large extent. This resulted in the development of a lot of customised ERPs. But very soon, couple with the maturity of ERPs in the market, the notion of each organisation having its own specific processes was gone. The new ERPs were not only better, but were also modelled based on best practices and thus, also governed the process changes in most organisations. Today, the ERP market is distinctly dominated by 2 players, SAP and Oracle Corporation, and the top 8 control most of the market. Steadily mostly organisations adopted on of these ERPs and today we seen the eventual demise of the customised ERP. This has also been necessitated by rapid strides of Globalisation and competition, which necessitate the adoption of best practices.

E-commerce and Standardisation

The ecommerce concepts are basically an extension of the process of standardisation. The era of ecommerce has affected / will affect corporation in 2 major ways.

1. Inside the organisation
2. Outside the organisation

Inside the organisation, the most important difference has been made by the proliferation of mailing solutions across the corporations. This standardised communication methods across the corporation. Today, they have evolved to expand to GroupWare applications with two leading players being Lotus Notes and Microsoft Exchange. They today include workflow leading to standardisation of processes.
The expansion of GroupWare technologies has led to collaborative or shared working without geographical boundaries. Today, these GroupWare’s extend into a new concept of Knowledge Management, which aims at **standardisation of Knowledge** across the corporation.

The most significant impact that is happening is outside the organisation. The first and foremost impact is the **standardisation of network**. Today Internet as a network is a standardisation. Private networks like Notes Connect are out. Standardisation of network as Internet has suddenly resulted in extended reach to customers without geographic boundaries. The availability of information across the globe and ability to contact any individual, primarily by e-mail, has resulted in new business models, restructuring of the brick and mortar companies and the rise of the dot.coms. Information became the key. As information was being exchanged with a larger number of customers, who intern had the ability to exchange the same very easily, information given to them was being looked at very critically. What is happening is the **standardisation of information** to the customer. Today the same information is available to any customer in a business to customer (B2C) site. This even includes different volume based pricing models. Transparency has also increased a lot because of this standardisation.

A more important and interesting impact of e-commerce outside the corporation has been in the field of Business to Business (B2B) commerce. This also represents the future. Since most big corporations today run on one of the top 8 ERPs, and most on the top 2, most work practices are standard within these corporations. This feature is exactly what has led to the birth of the Application Service provider (ASP) model. The model aims at exploiting standardisation across corporations. Today, a lot of small applications are being outsourced on a rental basis. ASPs today have grown to the level of providing ERPs, esp. Oracle applications and MakeESS, on the Internet. Today, the ASP market is also going through the same cycle as the ERP market did – The attitude of I am different. But, soon, as more and more organisations within an industry subscribe to this, the ASP market is going to force **standardisation across the industry**.

On the other hand, big corporations are getting together to further exploit the economies of scale of their vendors and share common resources. ERP vendors are gearing up for this with industry specific applications like Oracle Exchange and SAP marketplace. These are more than ERPs; they are Industry resource planners. A live example is the usage of the automobile oracle exchange by Ford, GM, and other major companies. The theory is pretty simple; an aggregate order not only helps the vendor achieve economies of scale but also results in cost down for the entire industry and thus better resource planning. Resources can also be redistributed so that their wastage is minimised. All of this has also resulted in the standardisation of the product and a faster movement towards Adam Smiths “Perfect Economy” where the invisible hand took care of the allocation or resources.

The next logical step for the IT industry to follow, especially after the concept of e-governance becoming so popular it the **standardisation of economy**. Though this is a far-fetched idea, and might take a long time, but I see this to be the next logical step of the progression of information technology.
With the standardisation of industry being a reality and the fact that industry resource planners are going to soon encompass all major industries, two functions have been significantly affected. The purchasers, whose job now is to be more and more transparent and to look for more and more thing to be standardised and second is that of the marketer, whose role is not that of a consultant and brand builder, given that products are becoming standard. Thus, it is the soft issues that would drive the sale in the market.

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