



NETWORK PRODUCTION IN FORDISM TO TOYOTISM SYSTEM OF MANAGEMENT

Prof. Abdul Matin

Retired Professor, Department of Sociology, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

Mariya Khan

PhD Scholar, Department of Sociology, Aligarh Muslim University, Aligarh, Uttar Pradesh, India

ABSTRACT

Growing significance of the information processing capabilities liberated by digitalization has transformed the lives of people by making them aware about the knowledge creation. Knowledge creation in present times has become an indispensable norm to survive in this globalized economy. The Proposed paper is an attempt to critically examine the diminishing relevance of Fordism and increasing relevance of Toyotism. The two models of production have briefly examined the growing significance of Toyotism within the framework of network production of Manuell castells that has been highlighted in the paper. Finally it has been concluded that Toyotism, within the framework of Network production is emerging as a dominant trend in Information society. The study is based on secondary data that has been collected from scholarly books, articles and journals

KEYWORDS: *Fordism, Post- Fordism, Toyotism, Network Production.*

INTRODUCTION

A new lifeline is being added in the people's lives with the advent of globalization. The process of globalization deepens with advances in Information and communication technology. The market of goods, capital, services and technology has become truly global. Networking at the present time is also becoming a dominant feature of global society. The main aim of this paper is to explain the downfall of Fordism and the rise of Toyotism which is to some extent similar to Post Fordism. The model of Fordism is dated back to 1915 when Henry ford opened his first assembly line plant but the Fordism model could not be developed with the help of previous model of organization of production known as Taylorism . In fact it was Taylor who introduced the idea of Assembly line in his Bethelam steel plant. The Fordism model is based on the idea of mass production and consumption. Slowly and steadily this model became obsolete with the diversification of market worldwide and growing demand in terms of quantity and quality. Soon the system became too costly and rigid. To overcome this shortcoming, the new system of production known as Post Fordism . The model of Post Fordism focuses on flexibility and capacity to adapt changes, team work, permanent training and general qualification. Another managerial revolution which the author is going to discuss in this paper is of Toyotism whose success is obtained by Japanese automobile firms. The model of Toyotism as opposed to Fordism is based on the formula of

just in time, flexible production system and time based management. To Castells (2010), the most divergent character of Toyotism as opposed to Fordism is that it does not focus on relationships between firms but between management and workers.

FORDISM

Henry ford is the predecessor of what we at present call Fordism. Fordism is a complex production system, which has turn out to be a reference in automotive industry due to its various principles which has established the standing of car manufacturing on a global domain .one of the essential contributions of Fordism is the development of assembly line, which inferred the division of labour vertically by means of separating the design and execution stage and horizontally by means of separating intricate tasks into small and simple operations. The chief element of assembly line contained in Fordism implies the standardization of the end product which means that nothing was to be hand-crafted by workmanship, but relatively finished through machineries and moulds in command to generate standard parts that would be wholly exchangeable for a standard production: ultimately the manufacturing of matching cars in huge quantities (Hudson, 2009).

This was accomplished with the help of special- purpose gears and tools that permitted the low level skill workforces to function on assembly lines. The disadvantage was on the other hand is that every single worker did single chore again

and again which was a very tedious activity, for instance one wage earner might spend his or her all day fixing on doll heads. One of the supreme and operational measure executed by Ford was that he doubled the salaries of workforces which led to a number of optimistic consequences on output, as it stopped the massive employee revenue which may well reach even 400% each year and alleviated the workers and also was an important encouragement to come and work for Ford for further workforces. An outcome of this resolution can be seen via productivity gains, the automotive which workers were producing getting more reasonable and therefore they may perhaps purchase the waggon they in reality finished and assist in fuelling the domestic economy via core consumption. In this way, productivity advances over and done with economies of scale would extract bulk of products for the mass market in an affordable or reasonable manner (Tolliday & Zeitlin, 1988).

Ford used the system call Push system which delivers the market with a produce that is intended to be immersed by market through enormous consumption, henceforth "pushing" it from the producer towards the purchaser. One more principle intricately in the victory of Ford's mass production was the fact that he decided to activate a wholly incorporated supply chain, which therefore required a large amount of activities and employees. Ford was proficient in the art of mass production and was able to achieve substantial economies by his own self. Ford believed in a clear cut supervision of all the stages of production within his personal sites which could more powerfully synchronize the flow of crude materials, tools and machineries through production rather than in the instance of a typical provider-consumer relationship (Chandler, 1977).

THE NETWORK ENTERPRISE

The recognized means of doing business become less profitable in the crisis of 1970s. Increased competition hastened the pace of searching new markets, new products, and new managerial forms for the growth of productivity. The new managerial forms (Post-Fordism) as per Castells are proficient in operating under the new market conditions. The notion of Post Fordism focusses around the thought that the emergency of the 1970s mainly affected the business of the large establishment organized on the standard of vertical integration, and established, mechanical and social division of labour. The large corporations was typified by assembly line production of Henry Ford in vast industrial set of buildings. These large corporation faced number of difficulties in handling the complications of innovation industrial methods and developing worldwide markets. Notably, as per castells, the downfall of Fordism arose in statism and in capitalism all together evenly for the same reason. But, capitalism on the one hand manages to calm down itself by the crisis of industrialism, while Statism, on the other hand collapsed in making an effort to reform itself in the late 1980s. A new form of business organization in the west appeared which is little hierarchical, extra modular, and accordingly far more flexible in nature. These organization were capable of reacting and exploiting the prospects of fast altering markets. Since the mid-1980s onwards, this major development in economic model is understood as a conversion from "Mass Production to Flexible Production" or from a "Fordism" to a "Post Fordism" standard of business society. This form of production entirely focuses on how commerce or business is systematized (mode of development), instead of the collective character of this organization (mode of

production). Therefore it strains on modification and ceases within capitalism, while Marxist versions emphasis on the persistence of elementary capitalist values. Thus, the emphasis on the transformation from mass production to flexible production has repeatedly been prolonged for analysing the downfall of large corporations as such. Because of their size, they were not able to move as quickly as their latest global, progressively liberalized and united markets necessitated. Small organizations as compare to large ones were extra delicate in moving market circumstances which could not be managed, not even by large enterprises. As significantly, although less evidently, it was not only large Fordist corporations that came under attack, but also small businesses, in spite of their better skill to grasp the alteration in market situation. One thing they were missing was the skill to positively move in to the latest version of global markets, a journey requiring resources out of their reach (Stadler, 2006)

In the course, castells states that mature practises of business Organization have resurfaced. Specifically, family based business networks have re-emerged which earlier has been side-lined by industrial forms of organization, with the help of advanced information technology. One of the best examples is the progress of family built Chinese business networks, originated in Hong Kong, and present days also found in central china (Stadler, 2006)

The central course of this structural change has been to combine elasticity of minor firms, modified to manage with non-stop change, with the availability of resources of Major Corporation, capable to make full use of economies of scale presented by global markets. It links chief, conflicting multinationals to each other via functionally inadequate, planned coalitions; it links minor enterprises to each other; and it also links small enterprises to large corporations for the endowment of highly specialized goods and services. Large companies restructure themselves by changing what were once called straight down (vertical) divisions into parallel units. So, these units become even more elastic (Flexible) and accountable such as by making them into independently responsible profit centres. Castells (2010) calls this conversion as a modification from vertical bureaucracies to Horizontal Corporation. In flexible management, production is no longer confined in one firm rather the authentic set-up unit in our economies is the commercial Project functioned by ad hoc business setups. As a result, castells holds an opinion that the worldwide production of goods and services gradually is not implemented by multinational corporations, but via transnational production networks in which multinational corporations play an important role, so far a section which could not function without of the rest of the network (Stadler, 2006).

In actual word, Multinational Corporation still considered to be the planned expertise focal point of the world economy. Nevertheless, definite production is being carried out via a diverse network of functioning units, while some belongs to the similar business structure, others to competitors, and some also works independently. However, they are all strung together on the basis of ad hoc requirements and prospects. The incorporation of these different units depends very less on the rank wise division of corporation. Thus, firms no more remain to be productive unit rather the network comes to dominate the entire process of the corporation which is the combination of several firms. Nevertheless, this does not mean that the firm is in some way

become outdated. Apart from that it still consider as the accounting unit, the legitimate unit and the abode of employment excluding self-employed people, and also a critical unit in a commercial economy, the arena of profit accumulation. These different units, which are dispersed, require specialized skilled services and refined Information Technology. As a result, in castells interpretation of existing capitalism, The increment in service professions is not understood as a weakening of manufacturing jobs as proposed by post industrialism, but as the establishment of new informational production technique (Stadler, 2006).

TOYOTISM AS NETWORK PRODUCTION

Toyotism as a network production marks the beginning of new era in automotive history. This new management system was established by Talichi Ohno and Eiji Toyota in the middle of 1948 and 1975 which offers excessive consideration to management practices in terms of manufacturing and logistics (Ohno, 1988).

Toyotism as a model represents flexible production system which is widely being used or copied by other corporations, and also being relocated by Japanese enterprises to their overseas locations, frequently causing a sizeable amount of enhancement in the working of these firms side by side the old industrial system. Some important components of this model are well recognized such as kan- ban or just in time model of supplies with the help of which the record of listed items are reduced extensively through distribution from the sellers to the production location at the given time. The main features included in the production line are the complete control of quality of products in the process of production, with the objective of obtaining zero defects in products, best and maximum utilization of resources, equal involvement of workers in the process, working in team , decentralization of departments, more independence to take decisions in the

factory, incentives for team performance or horizontal management with little status symbols in the daily routine of the enterprises (castells, 2010).

Large number of essential features of Toyotism have been positively implemented by American (GM-saturn) or German (Volkswagen) units. This model was completed by the engineers of Toyota in a duration of 20 years subsequently its limited, restricted overview in 1948. In order to understand the whole factory system, Japanese engineers premeditated the control system to evaluate stocks used by American superstores tables, so it is no wrong to assume that Just in time model to very extent is the product of an American mass production., compliant to flexible management by means of the unambiguousness of Japanese firms, mainly the obliging relationship among management and employees. The working of this model entirely depends upon the lack of key obstacles in the whole process of Production and distribution, or it can be said that it relies on the conjecture of five “zeroes” which are Zero defect in the components of product, Zero damage in technologies, zero inventory, zero postponement, zero book-keeping or paper work. Such enactments can only be established in terms of non- presence of work slowdowns and full control over workforce, on trustworthy dealers, and on effectively anticipated markets. As per castells (2010) “Toyotism’ is a management system designed to reduce uncertainty rather than to encourage adaptability”. The flexibility of Toyotism lies in the process, not in the merchandises. Thus, some analysts have suggested that it could be well thought-out to be an extension of “Fordism”, observing the same doctrines of mass production method accordingly by keeping in mind the human initiative and suggestion capacity to eradicate unwanted depletion of time, work and resources while preserving the features of production close to the business plan (Castells, 2010).

Differences between three methods of production can be seen in the table below

CLASSIFICATION	FORDISM	POST-FORDISM	TOYOTISM
Principles of production	<ul style="list-style-type: none"> Standardized product Specific-purpose tools & machineries Assembly Line production system Specialized labour/ division of labour 	<ul style="list-style-type: none"> Specialized goods & services Multi-functional tools & equipment Flexible system of management Up-to-date technologies 	<ul style="list-style-type: none"> Eradicate waste Intelligent automation (Jidoka) Production smoothing for the efficient production (Heijunka) Avoiding Human errors (Poka-yoke)
Culture of Organization	<ul style="list-style-type: none"> High salaries/wages Economy of scale Large-scale/mass production 	<ul style="list-style-type: none"> Services and the white - collar workforce Economy of scope Small-scale production 	<ul style="list-style-type: none"> joint gratification of involved members before execution of any assignments or projects(Nemawash),appropriate understanding of operation of certain actions and encouraging ideas for constant progress (Genba Kaizan), to maintain and regulate one’s shop floor and to maintain hygiene through individual self-restraint (5s) Economy of scope Kanban or just in time principle of production
Sequence of supply	<ul style="list-style-type: none"> push system from producer to the purchaser just in case wholly integrated sequence of supply 	<ul style="list-style-type: none"> pull system from consumer to producer kan-ban or just in time system of supplies individualized firms as traders 	<ul style="list-style-type: none"> pull system from consumer to producer just in time individual specialized corporations as allies

Source: Joint International Conference, 2015, Italy

CONCLUSION

At the end it is concluded that the model of Fordism model is quite rigid in nature which demands rigorous discipline, practical and specialized training of workforces, by treating man as a simple addition of the machine by separating the knowledgeable work from the labour-intensive work. Unlike Fordism, the principle of Post Fordism model signifies flexible system of authority and control by which traditionalism and inactiveness open spaces for enthusiasm and vision. While Toyotism as system mainly concern its relationship with management and workers. As per some analyst, it is assumed that Toyotism is neither the extension of Fordism or post Fordism, but simply a distinct way of organizing the labour processes in which the professional workers are despecialized in order to change them into multi-functional professionals. In the beginning, Japanese Firms were ignored by many foreign specialists. As a result, Ikujiro Nonaka, Japanese Organizational theorist after analysing the chief Japanese corporations, suggested a basic and simple model of knowledge creation in the firm. He is of view that "knowledge creating company" is based on the interexchange of knowledge between Explicit and Tacit Knowledge. He explains that the basis of innovation doubles when Organizations are capable of establishing links between explicit and tacit knowledge. With this, it not only help in bridging the communication gap in work experience, but also improved the prescribed body of knowledge in the firms. The knowledge created by the external world can be well implemented in the tacit behaviours of workforces, by making them to improve themselves on the regular basis. Thus, The key foundation of innovative firm lies in its ability to increase its sources from all forms of knowledge.

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