

TAYLORISM AND
FORDISM: A CASE
STUDY OF
AMAZON, INC.

Introduction

There are evident similarities between the principles of management theories identified during the Industrial Revolution and the current fast-paced generation characterised increased technology and high-level capitalism, which focuses on owning the means of production, huge capital accumulation, highly competitive markets and operations that maximise profits (Hyman and Baptist, 2014). While manufacturing companies during the Industrial Revolution ventured on a strategy that focused on increasing mechanisation in productivity, the current organisations are automating their operational process with robots becoming a common feature in today's workplace. There are similarities in these two elements since the focus is on maximising profits by improving effectiveness. Gupta, Arora and Westcott (2012) identifies the current era as the new industrial revolution with management principles that organisations used to maximise effectiveness during the Industrial Revolution still applicable in the new industrial revolution era highly characterised by automation. In this case, the focus shall be on two classical management theories that addressed the challenges posed by the Industrial Revolution's objective to meet the growing demand for products while also addressing the influx of unskilled labour in the companies at the time (Farjardo, 1997). These two theories are Taylorism and Fordism, which focused on improving management effectiveness (Watson, 2012). While each of these management theories have received positive reviews on their role in improving effectiveness, they have also been criticised for their failure to focus on the needs of the employees with a heavy focus on productivity just as it is the case with capitalism whose focus is to own the means of production. Nonetheless, this essay evaluates the notion that these two management theories allow organisations to achieve effective management. The final part of the answer review their application at Amazon by analysing the management principles used at the company.

Taylorism and Fordism Management Theories

Taylorism, established at the beginning of the 20th century, focuses on several elements. These elements focus on the overall improvement of effective management, selecting the best employees, improvement of cooperation between employees and managers, separation of the planning functions from employees' functions, simplification of work operations and other

principles that improve the workplace efficiency (Tamura, 2006). While management, before the development of Taylorism focused on the experiences of managers to make planning decisions, McLeod (1983) indicated that Taylorism ushered in a new era of scientific management whereby the focus shifted to operational processes to enhance operational effectiveness within the organisation.

Taylor (2016) identified optimisation and simplification of jobs as critical aspects of increasing productivity in the workplace. The theorist, therefore, advanced the notion that workers and managers should cooperate to achieve this objective. Before the establishment of Taylorism theory, factory managers and workers had limited contact with workers given a leeway to produce products without excessive supervision (Rohleder, 2010). In effect, standardisation was not common with the limitation providing workers little incentives to work due to this limited contact. Due to the low motivation of workers, Rohleder (2010) indicates that Taylorism ushered in a new approach that focused on attaching compensation to productivity in the workplace with workers paid based on their output. Moreover, capitalism as shown in the need to create more wealth to individuals by maximising productivity and employees' output required a new management system. In addition, Taylor identified the importance of identifying the right candidates for the tasks within a factory since individual differences determined the productivity of individuals in an organisational setup (Furnham, 2002). Therefore, Taylorism's principles suggested the importance of identifying the right people and hiring them within the organisation to optimise effectiveness by maximising output and meeting the increasing demand for products (Rohleder, 2010).

Shiomi and Wada (1995) identify Fordism as the transformative theory that changed the production industries. Advanced by Henry Ford, owner and director at Ford Motors Company, Fordism focuses on maximising efficiency and improving an organisation's production capacity. Watson (2013) identifies Fordism as an extension of Taylorism and indicates that the management theory deals with improving the systems of production while also increasing the affordability of products offered in a company. This makes Fordism an extension of Taylorism and a modification of the principles under Taylorism since it focuses on the element of affordable

products, which was not previously considered under Taylorism. However, Fordism also has elements of capitalism exemplified by the need to meet the demand for more products to create more wealth by receiving more revenues from products.

The principles of Fordism explain how organisations manage effectiveness. Fordism proposed the need for an assembly line to manufacture more products while standardising productivity through conveyor assembly lines (Tsutsui, 2001). Other than standardising output, the conveyor assembly line helped organisations break work into smaller tasks with workers focusing on their specialised tasks following intensive training by the company's management (Tsutsui, 2001). Therefore, an organisation achieved effectiveness by maximising output with workers repetitively carrying out the same operational processes daily, which enhanced their productivity in the manufacturing industries. More effectiveness was achieved by reducing the costs of production and consequently offering company products at affordable prices. This is evident in the Model T motor vehicle model that is highly touted as having revolutionised mobility within the USA with the vehicle becoming affordable to a majority of Americans who could afford a vehicle previously. To underline the nature of achieving management effectiveness following the implementation of Fordism at Ford Motors, Turi et al. (2015) indicates that the company sold over 200,000 units of the Model T in five years, which surpassed the combined production of motor vehicles by other manufacturing companies with the company selling over 2 million units ten years later.

To differentiate between Taylorism and Fordism, the former focuses on machine and worker efficiency with the latter, which is an extension of the former, combining machine and worker efficiency to minimise the costs of production instead of maximising profits although an organisation consequently achieves profits through mass production and sales. Despite these two management theories posing significant benefits to organisations, different authors have criticised them for their primary focus on processes and productivity with little consideration of the welfare of the employee (Gambino, 2007). However, the management theories have become an essential component of management in the current global business characterised by the need to achieve a higher market share than competitors by implementing strategies that improved

organisational effectiveness to increase productivity within an organisation, which is classic capitalism. This is the case for Amazon as discussed in the section below.

Amazon, Inc.

With its headquarters located in Seattle, Washington, Amazon is the leading internet-based retailer founded in 1884 as an online bookstore to diversify its product portfolio later to include an array of products. The company leads other retailer in terms of market capitalisation and revenues (Jopson, 2011). In recent times, the company has expanded its operates to diversify its product portfolio and target more companies with Amazon achieving this objective in 2015 by reaching customers in over 180 countries while operating websites in about ten other countries (Amazon, Inc., 2016). Due to the high demand for the company's products, the company operates an effective logistical system to achieve timely delivery of orders made by their customers. In the contemporary capitalist business environment, Amazon has borrowed classical management theories of Fordism and Taylorism to

One basic element underlining the evidence of Fordism at Amazon is the company's implementation of robots in the company's warehouses. The robots function together with the company's employees to manage effectiveness in a company that receives over 30 orders from customers every second (O'Connor, 2013). The use of robots is not to replace human workers, but rather to enhance effectiveness in the company's warehouses that operate in a similar manner to assembly lines that were introduced by Fordism. In the assembly line, Fordism principles utilised mechanisation, whose current equivalent is robots, to simplify workers' roles and improve their productivity (Turi et al., 2015). For the same reasons, Amazon has adopted robots in its warehouses that operate in a similar manner as the assembly line did during Fordism.

Simplification of workers' roles is another critical element of classical Fordism theory with managers always evaluating the assembly line to identify areas where the production process could be simplified to increase employees' output (Schoenberger, 1988). In line with this, organisations that use Fordism management principles are continually identifying areas of improvement in which they could simplify employees' work further. This is the case for Amazon

with O'Connor (2013) indicating that employees work with handheld satnav devices that measure their output and identify areas in which the company's managers evaluate instances of time-wastage and reprimand the particular employee. In addition, the management identifies areas that they could simplify employees' work based on the data collected by the devices.

Standardisation is a principle of both Taylorism and Fordism. By standardisation, Taylorism and Fordism focus on standardisation by continually monitoring the production process through the workers' performance and providing instructions to ensure that employees used the same standard way of working that promoted efficiency (Clarke, 2005). Amazon has ensured standardisation by constantly monitoring their employees through the data collected by the handheld satnav devices while also implementing a guiding set of principles known as 'articles of faith' that provide employees with rules "that are part of its daily language and rituals" (Kantor and Streitfeld, 2015).

These 'articles of faith' also apply in the way that the company manages its hiring and recruitment process. In this case, the company underlines the importance of employing the best employees as part of its philosophy. This philosophy further indicates that the company should retain the best employees whose output and productivity is high, which indicates that underperforming employees do not have a future at the company (Kantor and Streitfeld, 2015). By hiring, training and retaining the best, Amazon follows the Taylorism management principles that focus on identifying the right people and hiring them to optimise effectiveness by maximising its output (Rohleder, 2010). By focusing on these attributes, Amazon increases management effectiveness improve their approach to their operation processes to address the high demand from its customers.

The implementation and adoption of these strategies, however, have not been without criticisms. In a similar way in which both Taylorism and Fordism management failed to consider the needs of employees, the situation is the same at Amazon. Despite the success, employees work under a strict and inhumane environment characterised by poor working conditions. Bort (2016) indicates that Amazon's employees are also under constant surveillance that starts with thorough body frisking when leaving and reporting for work. In addition, employees work for

long hours with little pay under constant supervision. The company does not offer any form of job security with the most productive employees only retained while absenteeism is punished through dismissals (Kantor and Streitfeld, 2015). In brief, Amazon is only driven by more profits and more output with Taylorism and Fordism emphasising on managing effectiveness with little regard of employees' welfare.

Conclusion

Contemporary global organisation have a large array of market that they could focus on achieving to maximise their profits. To achieve this objective, effectiveness in management plays a critical role in ensuring that an organisation achieved this objective. Despite being classical management theories, Taylorism and Fordism offer organisations with principles that they could apply successful to improve effectiveness in management by focusing on productivity. These principles have helped Amazon achieve its objective of effective management of its logistical needs. With increased focus on performance and productivity, organisations ignore the plight of their employees, as it is the case with Amazon. Nonetheless, organisations can focus on both productivity and performance without forgetting about their employees' welfare.

References

- Amazon, Inc., (2016). *Amazon.com: 2015 Annual Report*. [online] Available at: <https://www.amazon.com/> [Accessed 7 Mar. 2017].
- Bort, J. (2016). *Amazon promises to change its 'Hunger Games' employee review process*. [online] Business Insider. Available at: <http://www.businessinsider.com/amazon-hunger-games-employee-review-process-change-2016-11?IR=T> [Accessed 7 Mar. 2017].
- Clarke, C. (2005). *Automotive production systems and standardisation: From Ford to the case of Mercedes-Benz*. Dordrecht: Springer.
- Farjardo, F. (1997). *Management*. Manila: Rex Book Store.
- Furnham, A. (2002). *Personality at work*. London: Routledge.
- Gambino, F., 2007. A Critique of the Fordism of the Regulation School. *The Commoner*, 12, pp.39-62.
- Gupta, A., Arora, S. and Westcott, J. (2012). *Industrial automation and robotics*. 2nd ed. New Delhi: University Science Press.
- Hyman, L. and Baptist, E. (2014). *American Capitalism: A Reader*. New York: Simon & Schuster.
- Jopson, B. (2011). Amazon urges California referendum on online tax. *Financial Times*. [online] Available at: <http://www.ft.com/cms/s/0/61828252-ac1d-11e0-b85c-00144feabdc0.html#axzz1RxkefD8m> [Accessed 7 Mar. 2017].
- Kantor, J. and Streitfeld, D. (2015). *Inside Amazon: Wrestling big ideas in a bruising workplace*. [online] New York Times. Available at: <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html> [Accessed 7 Mar. 2017].
- McLeod, M. (1983). "Architecture or Revolution": Taylorism, Technocracy, and Social Change. *Art Journal*, 43(2), p.132.
- O'Connor, S. (2013). Amazon unpacked. *Financial Times*. [online] Available at: <https://www.ft.com/content/ed6a985c-70bd-11e2-85d0-00144feab49a> [Accessed 7 Mar. 2017].
- Rohleder, E. (2010). *Taylor's Theory of Scientific Management and the Implications for Contemporary Management Practice*. Munich: GRIN Verlag.
- Schoenberger, E. (1988). From Fordism to Flexible Accumulation: Technology, Competitive Strategies, and International Location. *Environment and Planning D: Society and Space*, 6(3), pp.245-262.

Shiomi, H. and Wada, K. (1995). *Fordism transformed*. Oxford ; New York: Oxford University Press.

Tamura, Y. (2006). Japanese Production Management and Improvements in Standard Operations: Taylorism, Corrected Taylorism, or Otherwise?. *Asian Business & Management*, 5(4), pp.507-527.

Taylor, F. (2016). *The principles of scientific management*. New York: Cosimo Classics.

Tsutsui, W. (2001). *Manufacturing ideology*. Princeton, N.J.: Princeton University Press.

Turi, A., Mocan, M., Ivascu, L., Goncalves, G. and Maistor, S., 2015, May. From Fordism to Lean management: Main shifts in automotive industry evolution within the last century. In *MakeLearn International Scientific Conference on Management of Knowledge and Learning* (pp. 25-27).

Watson, T. (2012). *Sociology, work and organisation*. London: Routledge.

Watson, T. (2013). *Management, organisation and employment strategy*. Hoboken: Taylor and Francis.

Introduction

Organizational management evolved along with industrial revolution by the end of 18th century. This revolution set a new challenge for industrial owners and managers that was to devise a management method that could increase productivity, improve production efficiency and expand the employees' set of skills. It was necessary to shift the industries from small-scale craftsmanship to large-scale mechanical manufacturing and production (Waddell et al, 2013). So, the rapid growth of industrialization replaced the manual labor with automation and small industrial units with large scale production units with mechanized systems. Thus, the world entered in the era of industrialization (Bratton & Jeff, 2012). This revolution was accompanied with the concept of industrial/organizational management. But in the very beginning, the industry owners and managers were not aware how to manage the workforce so that they can operate the machines effectively to maximize the production and realize the maximum benefits of mechanization thus the effectivity of workforce and efficiency of production was quite low (Jensen, 1993). At that time two classical management theories evolved that are known as "Taylorism" and "Fordism". These theories were based on the concept of maximization of production through labor efficiency (Stokes, 2011). Fredric Winslow Taylor, who is known as the father of industrial management introduced the use of science to solve management problems in early 1900s which is popularly known as Taylorism. In the same way, Henry Ford's efforts to manage his production unit in a scientific way are known as Fordism. These theories proved to be the beginning of a social revolution in the society that was based on capitalism. This revolution improved the ways of management and developed a common sense about the basic elements of manufacturing and resulted in a massive rise in the quality and quantity of industrial production. These theories are more than a century old now and have been facing severe criticism during this time but still are used by many global organizations, directly or indirectly (Mullins, 2010).

This report aims at providing an overview of both the management theories, Taylorism and Fordism and evaluates their efficiency in solving the management problem. Amazon has been selected as a case study to evaluate the effectivity of these two theories in today's business environment. The report will examine and analyze the theories in practice at Amazon and their effects on the employees' motivation and professional satisfaction. The report will end up at an analysis and conclusion of impact of these policies on Amazon's business and staff.

Taylorism

The increased mechanization and demand for goods gave rise to the concept of scientific management that aims at exploring the approach that can help in development of a set of skills to fulfill the tasks and improve the efficiency of production (Jawad, 2016). The early twentieth century witnessed a strong wave of urbanization due to the increased demand of industrial workers thus there was a rush of unskilled workers who were moving to cities to fill the gap between the supply and demand of industrial workers (Jawad, 2016).

Development of scientific management theory by Fredric Winslow Taylor at the beginning of 20th century is popularly known as Taylorism. The main features of Taylorism include the selection of suitable workers, setting work quotas, performance based payment system, implementation of standardized management, coordination amongst the workforce, separation of planning and execution functions along with application of principle of exception in terms of management control (Daft & Marcic, 2013). Implementation of Taylorism changed the organizational culture and the management style shifted from experience management to scientific management.

Taylorism aims at maximization of production by focusing on workers, tools and processes along with setting the best possible location, the most rational work quota and standardized operation that is based on scientific experiment. A very famous example in this regard is of the shovel used to handle the pig iron. Taylor experimented and revealed that the amount of pig iron shoveled by different workers was different so the shovel size also should be different. Thus, he set up a special tools workshop that designed ten different types of shovels which were suitable to perform different tasks more effectively (Beissinger, 1998). Taylor's management theory didn't leave any worker sitting idle and turned them into working machines. Taylorism continued to progress even after Taylor but its wide scale implementation revealed its drawbacks and the major criticism on it is based on its dealing with the workforce just as human machines and it is stated that the Taylor's school of thought focuses on production and discipline and they seldom consider the importance of human factor (Mullin, 2010).

Application of Taylorism in management science improves the efficiency of management by diminishing the chance of misunderstandings. It focusses on splitting the work into small segments as repetition of small tasks is comparatively easy with lesser possibility of mistakes. Furthermore, it reduces the workers' training time as they need to learn a small segment of the

whole process. But its drawback is that it doesn't involve any creativity and individuality and there is less flexibility in management system (Jawad, 2016). Furthermore, as every worker performs just a little part of the task so they lack the sense of professional satisfaction.

Fordism

Fordism is named after Henry Ford, a prominent industrialist, who gave rise to another concept of management system that was also based on maximization of workforce efficiency and production capacity (Robbins et al, 2014). Fordism mainly focuses on decreasing the time and cost of production and thus decreasing the prices. At the same time Fordism emphasizes on increasing the wages of workforce due to the increased productivity. Fordism believes in a connection between the mass production and a mass consumption. Fordism is now a symbol of revolution of mass consumption that is a result of mass production. There is no doubt about it that a successful implementation of Fordism can result in increased efficiency due to use of assembly line, standardized production procedures and vertical integration (Degan, 2011). But over the passage of time, researchers revealed the flaws of Fordism and it was mentioned that determination of work speed by the technical system that is governed by a bureaucratic management has seized the workers' autonomy over their work (Jessop, 1992). The criticism on Fordism continued as more problems rose due to several changing working conditions (Baca, 2004).

Capitalism

Capitalism can be defined as a system for controlling the fiscal matters of an economy. Capitalism has different forms and is changing and developing with the passage of time (Scott, 2006). A comprehensive definition of capitalism by The Macmillan Dictionary of Modern Economics (Pearce, 1992) explains capitalism as an economic system in which the individual people and not the government own the property, business and industry. This definition recognizes capitalism as a social, political, and economic system that has emerged from feudalism. It gives the private parties' right to employ the labor on the market rate. It applies the price mechanism as its basic tool to coordinate with market as a substitute of command and control. It has been observed that capitalism based economic systems can be distinguished from one another on the bases of the degree and nature of the governmental involvements and the effectiveness of the markets in which they operate (Scott, 2006). Capitalism can be further explained as an indirect economic system that involves a continuous, intricate political process which empowers the private businesses to control and use property in order to gain personal

profits and benefits while following a particular set of rules. Capitalism promotes the use of intellect and creativity as it ensures the personal gains as a result of this effort (Walton, 2010).

Capitalism is criticized for a number of reasons. First of all it is employer centered and does not focus on the rights of employees. The employees don't have a professional satisfaction as they are assigned the work in a way that can maximize the production. Furthermore the employer tries to exploit the labor force by paying them in accordance to market rate and getting the maximum production by their labor. The employer is not bound to spend any part of profit for their well-being thus keeps them deprived of the benefits of their work (Scott, 2006).

Comparison between Taylorism and Fordism

Taylorism and Fordism both are considered as the founding stones of industrial management science and are found effective in increasing the production by improving the workforce efficiency but unfortunately both the theories are heavily criticized for neglecting the human rights (Wilson, 2003). It has been mentioned that the workforce which is working in industries following Fordism or Taylorism have only one motivation to work and that is the money they earn. The reason for this situation is the minimized welfare of staff that is affecting their performance due to the growing awareness about human rights (Buchanan & Kuczynski, 1997). According to some research studies this has been reflected by the decline of US motor vehicle industry in comparison to the Japanese auto industry and its partial reason was application of Fordism and Taylorism and negligence of human rights (Degan, 2011). A better humanistic behavior towards the workers improves their affiliation with the organization and results in better production. It was argued that Fordism and Taylorism not only decrease the level of motivation of employees but generate a negative impact on internal communication and employees' professional satisfaction over a longer period of time and this all can impede the organizational growth (Jawad, 2016).

Case Study of Amazon

Taylorism and Fordism both are widely applied for the sake of corporate management as they are considered to improve organizational efficiency. Many multinational companies are using them and Amazon, that is one of the largest online retailing companies in the world, is one of them.

It is a Seattle, USA, based e-retailer that started its business from selling books but now deals with a wide range of products from electronic goods to clothing. Amazon operates through online retailing websites and offers its services on global bases. It also offers shipment and delivery to the regions where online retailing is not available (Amazon, 2017). Organization of such a vast logistic operation while maintaining a balance between the amount of work and delivery speed is a great challenge for the organization. Dealing with such a great demand requires a technical support and human resources at the same time.

Amazon is run through an efficient management system that is recognized as “digital Taylorism” (The Economist, 2015) as it is an amalgamation of human resources and digital technology. The company operates through its headquarter and delivers the orders from its warehouse to all around the world. Application of “digital Taylorism” by a global organization has given rise to a strong criticism (Head, 2014; Kantor & Streitfeld, 2015) and the basic reasons for this criticism are poor working conditions and strict rules at the warehouse (Yarrow et al., 2013).

Amazon is using the leadership principles for effective management of its logistic operations (Kantor & Streitfeld, 2015) and its application makes the customer service proactive in nature (Amazon, 2017). The staff is paid on the bases of the amount of work done and there is enough evidence that it keeps them motivated. It is observed that under this management system, performance of an employee doubled in a span of six months (Head, 2014). It is also observed that after working with Amazon for a long period of time, Amazon employees manage to deal up to 35 orders per second (Feinberg, 2013). The managers are assigned a double duty of detecting the slow workers and observing the work procedures to further simplify them (Head, 2014). Amazon is aiming to maximize its efficiency through the best possible strategy for every step of its business operation. Preparation of orders is automated and use of high end technology, such as robotics, at fulfillment centers is improving the business performance (Cosco, 2014). The bar code present at every item makes it easy to track it via computerized system. This system is supporting organizational communication as well (Knight, 2015). Amazon should accomplish its tasks by using a combination of human resources and modern technology as only mechanized operation cannot achieve the organizational goals and sorting the orders and their packaging requires a labor-intensive operation (Stern, 2015).

It has been reported that Amazon employees are overworked as they should perform their duty for 80 hours per week in a strictly supervised environment that keeps the staff's moral down and a research study has reported that Amazon's employees' professional satisfaction level

lower in comparison to the other compatible industries (Stern, 2015). Some other, very important reasons for dissatisfaction are the absence of employees' voice for their rights at the workplace and the widening gap between their expected and real wages (Head, 2014; The Economist, 2015). Furthermore, instead of raising the current employees' salaries Amazon is hiring more part-time workers that is taken as an attempt to avoid the workers' well-being.

Conclusion

Research on different organizations has established that Taylorism and Fordism are very effective and improve organizational management by reducing the overall cost and increasing efficiency. Highly controlled work environment and guidance help the unskilled workers to improve their performance thus a strict supervision is a favor for them. The case study of Amazon indicates that implementation of Taylorism and Fordism has enhanced its organizational efficiency. Repetition of small tasks is quite easy and requires less training and lesser scope of mistakes. Furthermore, it allows a quick improvement in performance. Amazon can supervise its workforce effectively as their tasks are brief, clearly divided and well defined. Anyway, implementation of Taylorism and Fordism has proved to be a key to success for Amazon but at the same time it is facing criticism due to its working environment and intensity of work that the staff has to do. If Amazon changes its policy regarding the number of working hours and salaries, it will be able to improve its image about human rights violation along with a rise in the workforce morale that can even enhance the organization's profitability.

References

- Amazon official Website (2017) *Amazon Web Services*. [Online] Available on: <http://www.amazon.com> [Accessed on 8th March, 2017].
- Baca G., (2004). "Legends of Fordism: Between Myth, History and Foregone Conclusions" *Social Analysis*, 48(3): 169-178
- Beissinger M. (1998) *Scientific management, socialist discipline and Soviet power*. London: Tauris

Bratton J. and Jeff G. (2012). *Human Resource Management: Theory and Practice*. London: Palgrave Macmillin.

Buchanan D. and Huczynski, Andrzej. (1997). *Organizational Behavior: An Introductory Text*. (3rd ed.) Prentice-Hall

Cosco J. (2014) *The Secret of Amazon's Emergency is Part Man, Part Machine*. *Business Insider*. [Online]. Available on: <http://businessinsider.com/the-secret-to> [Accessed on 8th March 2017].

Daft R. and Maricie D. (2015). *Understanding management Australia*: South Western Cengage Learning

Degan R. (2011). *Fordism and Taylorism are responsible for the early success and recent decline of the US motor vehicle industry*. Ideas Working Paper Series from REPEC 2011.

Feinberg A. (2013) *Life in an Amazon Warehouse: Fear and Efficiency at 35 orders per second*. [Online] Available on: <http://gizmodo.com/59828/life-in-an-amazon-warehouse-fear-and-efficiency-at-35-orders-per-second> [Accessed on 8th March 2017].

Head S. (2014). *Worse than Wal-Mart: Amazon's sick brutality and secret history of ruthless intimidating workers*. [Online]. Available on: [http://www.salon.com/2014/02.'23/](http://www.salon.com/2014/02/'23/) [Accessed on 8th March, 2017].

Jawad. C. (2016). *Critical Perspectives in Management*. Lecture notes delivered on class.

Jensen M. C. (1993) The Modern Industrial Revolution, exit and the failure of internal control systems. *The Journal of Finance*, 48(3), 831-880.

Jessop B. (1992). *Fordism and post Fordism: A critical reformulation*", in Storper, M; Scott, A. J. Pathways to industrialization and regional development, London: Routledge

Kantor J. and Streitfeld D. (2015). *Inside Amazon: Wrestling Big Ideas in a Bruising Workplace*. New York Times. [Online]. Available on: <http://www.nytimes.com/2015/08/16/technology/insider-amazon-wrestling-big-ideas-in-a-bruising-workplace.html/> [Accessed on 8th March, 2017].

Knight V., (2015). *"Inside Amazon, MIT Technology Review"* [Online] Available on <http://www.technologyreview.com> [Accessed on 8th March, 2017].

Mullins L. (2010). *Management and organizational behavior*. Essex: Pearson

Robbins, S., Bergman, R., Stagg, I. and Coulter, M. (2014) *"Management"* Melbourne: Pearson Education

Scott, B. R. (2006). The Political Economy of Capitalism, Working Paper

Stern S. (2015). *"Amazon employees find themselves at the mercy of big data"*. International Business Times. [Online] Available on <http://ibtimes.co.uk> [Accessed on 8th March, 2017].

Stokes P. (2011). *Critical Concepts in Management and Organization Studies*. Palgrave Macmillan Limited

The Economist. (2015). *Digital Taylorism, a modern version of scientific management' threatens to dehumanize the workplace.* [Online]. Available on <http://www.economist.com/news/business/21664190-modern-version-scientific-management-threatens-dehumanise-workplace-digital> [Accessed on 8th March, 2017].

Pearce D. W. (1992). The Macmillan Dictionary of Modern Economics. Macmillan: Business & Economics

Waddell, D., Jones, G. R. and George, J. (2013). *Contemporary Management*. 3rd Edn, McGraw-Hill Education, NSW, Australia, 6-26, 38-54

Walton, M. (2010) "Capitalism, the state, and the underlying drivers of human development" United Nations Development Programme, Human Development Reports, Research Paper

Wilson, M. (2003). Corporate sustainability: What is it and where does it come from? *Ivey Business Journal*, 67(6),

Yarrow J., Jones G. R. and George J. (2013). *Crazy Rules That Could Get You Fired from Amazon Warehouse*. Business Insider [Online]. Available on <http://www.businessinsider.com/amazon-warehouse-rules-20> [

Taylorism And Fordism:

AMAZON:

Industrial revolution started in 18th and 19th centuries. It happened gradually and in short span of time. Before industrial revolution people were working hard. There was need of too much man power or muscle power to gets the job done. Main purpose of industrial revolution was to invent the machines, use of steam and adoptions of factory system. (Hackett & 1992). Owners and management of organisation faced too many challenges in order to find out the new ways to boost or increase the production of the organisation. (Waddell et al., 2013). Quality of employees and life are directly proportional to each other. It is the one you maintain of them. It was one stated by Union maverick, the late Charles E. Bryan. (Amin, 2008). Frederick Winslow Taylor is also known as the father of management. He examined all the management problems and to solve them he brought science in to management. The process named as Taylorism. Henry Ford came with the idea of Fordism. It had its impact on shaping the factory in 20th century. There was a lot of criticism on Taylorism and Fordism from many others scholars. Talking about Taylorism, many scholars thought, it treated workers as machines and it has no humane factors. There is although loads of argument on these theories but still many large organisations still using directly and indirectly these two management theories. (Uddin and Hussain, 2015). This essay will explains what are Taylorism and Fordism theories are and how these helps and allow organisations to manage more effectively and efficiently. To examine the effectiveness of these theories in the current business environment, Amazon is the selected organisation to work on. At the end essay will conclude the understanding of Taylorism and Fordism with the real practice.

Brief Overview – Amazon:

Amazon was founded by Jeff Bezos in 1994 and it was launched in the following year. It is based in Seattle, Wash and it is fortune 500 e-commerce Company. It is one of the largest / biggest company in selling goods through internet. Amazon was first started as online bookstore. With the passage of time, it became leading organisation for online shopping by adding other items like DVDs, Music, Electronics and Clothing's. In 1999, just five years after he started Amazon, Jeff Bezos was named Time magazine's "Person of the Year." He received this honour largely because of the company's success in popularizing online shopping. Amazon thinks customer are really important for the business. So they not only put their customers first but also in ownership from its team. In 2017, approximately 269,000 employees had the chance or been working for Amazon. (Schneider, 2017). Although Amazon has big amount of people working for them but they not directly involved in manufacturing process. These operations has been outsourced. Amazon welcomes all the manufacturers to sell their goods or products on their marketplace.(Amazon.com) Amazon is a unique organisation to analyse theories like Taylorism and Fordism.

Taylorism, Fordism and Capitalism: Management system is there in organisations for hundreds of years but proper ideas of management came in 17th century. According to philosophers, scientific management is a management which aims to enhance, explore or increase the practices required to fulfil the jobs. It requires special skills and development tips.(Jawad, 2017). Taylor's theory is also known as scientific management theory. Frederic Winslow Taylor is one of the first theorists who started the movement of scientific management. He along with his team studied

the work process. Taylor's philosophy focused on the belief that making people work as hard as they could was not as efficient as optimizing the way the work was done. In 20th century Taylor published "The Principles of Scientific Management." It rises because there was increase in mechanism and high demands for goods. People started migration from different parts in to the city because factories wanted labour in big numbers to fulfil the demands of market. (Jawad, 2017). According to Taylor, every person who works in any type of business gets motivation from money. He came with the idea of "a fair day's pay for a fair day's work." Four principles of Taylor's theory are described below;

1: Replace working by "rule of thumb," or simple habit and common sense, and instead use the scientific method to study work and determine the most efficient way to perform specific tasks. 2: Rather than simply assign workers to just any job, match workers to their jobs based on capability and motivation, and train them to work at maximum efficiency. 4: Monitor worker performance, and provide instructions and supervision to ensure that they're using the most efficient ways of working. 4: Allocate the work between managers and workers so that the managers spend their time planning and training, allowing the workers to perform their tasks efficiently. (mindtools.com). Taylorism mainly increases the management efficiency by reducing the problems. It focuses on dividing the jobs in to small parts and simply repeats small task results in reducing mistakes and increase efficiency. (Fuchs, 2014). This theory helps organisation to control their workforce and their behaviour. When organisations starts finding easier to monitor their employees, management can link payment and employee's performance to each other. It helps organisations to achieve their efficient management. (Economist, 2015).

Fordism is a specific stage of economic development in the 20th century. Fordism is a term widely used to describe (1) the system of mass production that was pioneered in the early 20th century by the Ford Motor Company or (2) the typical postwar mode of economic growth and its associated political and social order in advanced capitalism. Henry Ford came with the idea of Fordism. In 20th century, mass production system was produced for Ford Car manufacturing company. It was important for organisations to improve their products efficiency due to increase in demand of standardised products at that time. Main difference between Taylorism and Fordism was; its focus on the standardisation in production process.(Renault, 2007). Fordism's Application helps in increasing the quality of management by improving the standard of production process. Like Taylorism; Fordism also shows their control on the workers who are highly skilled in an organisation.

Although loads of big firms, organisations, companies and businesses using Taylorism and Fordism by any means but still there is a lot criticism on these theories in terms of human rights. According to Buchanan and Huczynski (1997); people working in an organisation where management system runs by the Taylorism and Fordism might be motivated by the money only. Talking about Taylorism, it is been stated that jobs should be divided into small parts and should monitor every person's performance step by step. But in modern world, organisations prefer to analyse the whole jobs first to increase production. (mindtools.com). on the other side U.S motors faced a lot of pressure from their workers which resulted increase in labour cost. An organisation with Taylorism and Fordism management system has positive and negative factors. If it is helps those in increasing their production then it also reduce the creativity and motivation of employees.

Capitalism is a social system based on the recognition of individual rights, including property rights, in which all property is privately owned. The recognition of individual rights entails the banishment of physical force from human relationships: basically, rights can be violated only by means of force. (capitalism.org).

Amazon/ Taylorism and Fordism:

Amazon is one of the largest internet online retailers and it follows their own management system. Company takes order and delivers them all over the world. Amazon's management system is widely noted as digital Taylorism. People have opinions for and against this system in organisations like Amazon. Amazon is using Taylorism and Fordism in their management system. One of the typical management rules in Amazon is Principles of Leadership. (Kantor and Streitfield 2015).

If workers get money on the basis of performance and working hours; employee's motivation level will be high. Employees in Amazon do improve their efficiency in work with the help of management system. Managers have the duties to catch the lazy people or employees who are wasting time and also to monitor the process. (Head 2014). There are a lot of questions and criticism on Amazon regarding their poor working conditions within the stores.

There are many complaints against Amazon because of injustice to employees within the organisation. Many reports and articles been published on exploitation of labour force. Around two years ago, report published in newspaper, one woman was working with in the Amazon. She had breast cancer and it start affecting her performance. Mangers within the organisation noticed and instead of worrying about her health. She was put on performance improvements plans. (Ian Johnston , 2015).

Amazon has own system of warnings and it is known as point system. It monitors employees and their performance on daily basis. Employees with lower expected performance get points and after certain points if there will be no change in performance she/he will be fired. Staff made to work over 80 hours per week under strict rules and working conditions.

New York Times interviewed more than 100 employees of Amazon. Some of them were former and some was still working for the organisation. It has been found that working conditions devoid of empathy and it push staff to their limits to increase production and efficiency. Amazon has high number of people working in it. Talking about UK stores, more then 7000, employees working in Amazon distribution centres. Organisations strict rules and regulations are making people physically and mentally ill. (Jamie Grierson , 2015).

Online job forums have reviews by former workers which describe being expected to “work like robots” and “paranoia with job security”. Workers say overtime is compulsory and holidays banned in the busy months of November and December.(Hilary Osborne, 2016). There was a demand of Pay rise by the employees working in Amazon. Instead of looking in to it Amazon hired more part time workers in recent years. It give company freedom to terminate contract of employees on the basis of point system. Amazon is very big organisation and has loads of people working for them. Employees feel suffocated and sick due to poor air circulation in warehouse especially in summer time. After receiving many complaints, Amazon did not do anything on this issue. Employees are monitored all the time while working in the warehouse and even not allowed to talk with other workers.

Conclusion:

It has been concluded after all the studies and researches that efficiency of organisation management can be increased, enhanced or improved by using Taylorism and Fordism. Workers without skilled and knowledge can work properly under specific guidance and control. Amazon has its set rules and regulations in getting job done. Taylorism and Fordism did help Amazon in increasing or enhancing their efficiency of management. Division of tasks in Amazon helps employees in managing their roles. On the other hand working conditions, Management pressure and strict rules on employees does bring criticism on the application of Taylorism and Fordism. But companies like Amazon can get high turnover by using cheap labour.

Bibliography

Amazon.com. (n.d.). *Product Availability Policy for Manufacturers*. Retrieved from <https://www.amazon.com/gp/help/customer/display.html?ie=UTF8&nodeId=201805990>

Amin, A. (2008). *Post-Fordism: A Reader*. New york: Wiley-Blackwell.

capitalism.org. (n.d.). Retrieved March 12, 2017, from What is capitalism?: <http://capitalism.org/capitalism/what-is-capitalism/>

Economist, T. (2015, September 10). *Digital Taylorism*. Retrieved March 10, 2017, from A modern version of “scientific management” threatens to dehumanise the workplace:

<http://www.economist.com/news/business/21664190-modern-version-scientific-management-threatens-dehumanise-workplace-digital>

Fuchs, c. (2014). *Digital labour and Karl Marx*. Oxon: UL: Rutledge.

Hackett, L., & 1992. (n.d.). *INDUSTRIAL REVOLUTION*. Retrieved from <http://history-world.org:>
<http://history-world.org/Industrial%20Intro.htm>

Hilary Osborne. (2016, December 12). *Amazon accused of 'intolerable conditions' at Scottish warehouse*. Retrieved March 10, 2017, from theguardian.com:
<https://www.theguardian.com/technology/2016/dec/11/amazon-accused-of-intolerable-conditions-at-scottish-warehouse>

Ian Johnston . (2015). *Amazon: Devastating expose accuses internet retailer of oppressive and callous attitude to staff*. Retrieved March 10, 2017, from independent.co.uk:
<http://www.independent.co.uk/news/business/news/amazon-devastating-expose-accuses-internet-retailer-of-oppressive-and-callous-attitude-to-staff-10458159.html>

Jamie Grierson . (2015, August 18). *Amazon 'regime' making British staff physically and mentally ill, says union*. Retrieved March 10, 2017, from theguardian.com:
<https://www.theguardian.com/technology/2015/aug/18/amazon-regime-making-british-staff-physically-and-mentally-ill-says-union>

Jawad, C. (2017). *Critical Perspectives in Management. Lecture Notes*.

Jessop, B. (2016, May 17). *Fordism*. Retrieved March 10, 2017, from britannica.com:
<https://www.britannica.com/topic/Fordism>

mindtools.com. (n.d.). *Frederick Taylor and Scientific Management*. Retrieved March 09, 2017, from mindtools.com: https://www.mindtools.com/pages/article/newTMM_Taylor.htm

Renault, E. (2007). From Fordism to Post Fordism. *Beyond or Back to Alienation* , 205-220.

Schneider, L. (2017). *Overview of Amazon.com's History and Workplace Culture*. Retrieved from
www.thebalance.com: <https://www.thebalance.com/amazon-com-company-research-2071316>

TAYLORISM AND
FORDISM: A CASE
STUDY OF
AMAZON, INC.

Introduction

There are evident similarities between the principles of management theories identified during the Industrial Revolution and the current fast-paced generation characterised increased technology and high-level capitalism, which focuses on owning the means of production, huge capital accumulation, highly competitive markets and operations that maximise profits (Hyman and Baptist, 2014). While manufacturing companies during the Industrial Revolution ventured on a strategy that focused on increasing mechanisation in productivity, the current organisations are automating their operational process with robots becoming a common feature in today's workplace. There are similarities in these two elements since the focus is on maximising profits by improving effectiveness. Gupta, Arora and Westcott (2012) identifies the current era as the new industrial revolution with management principles that organisations used to maximise effectiveness during the Industrial Revolution still applicable in the new industrial revolution era highly characterised by automation. In this case, the focus shall be on two classical management theories that addressed the challenges posed by the Industrial Revolution's objective to meet the growing demand for products while also addressing the influx of unskilled labour in the companies at the time (Farjardo, 1997). These two theories are Taylorism and Fordism, which focused on improving management effectiveness (Watson, 2012). While each of these management theories have received positive reviews on their role in improving effectiveness, they have also been criticised for their failure to focus on the needs of the employees with a heavy focus on productivity just as it is the case with capitalism whose focus is to own the means of production. Nonetheless, this essay evaluates the notion that these two management theories allow organisations to achieve effective management. The final part of the answer review their application at Amazon by analysing the management principles used at the company.

Taylorism and Fordism Management Theories

Taylorism, established at the beginning of the 20th century, focuses on several elements. These elements focus on the overall improvement of effective management, selecting the best employees, improvement of cooperation between employees and managers, separation of the planning functions from employees' functions, simplification of work operations and other

principles that improve the workplace efficiency (Tamura, 2006). While management, before the development of Taylorism focused on the experiences of managers to make planning decisions, McLeod (1983) indicated that Taylorism ushered in a new era of scientific management whereby the focus shifted to operational processes to enhance operational effectiveness within the organisation.

Taylor (2016) identified optimisation and simplification of jobs as critical aspects of increasing productivity in the workplace. The theorist, therefore, advanced the notion that workers and managers should cooperate to achieve this objective. Before the establishment of Taylorism theory, factory managers and workers had limited contact with workers given a leeway to produce products without excessive supervision (Rohleder, 2010). In effect, standardisation was not common with the limitation providing workers little incentives to work due to this limited contact. Due to the low motivation of workers, Rohleder (2010) indicates that Taylorism ushered in a new approach that focused on attaching compensation to productivity in the workplace with workers paid based on their output. Moreover, capitalism as shown in the need to create more wealth to individuals by maximising productivity and employees' output required a new management system. In addition, Taylor identified the importance of identifying the right candidates for the tasks within a factory since individual differences determined the productivity of individuals in an organisational setup (Furnham, 2002). Therefore, Taylorism's principles suggested the importance of identifying the right people and hiring them within the organisation to optimise effectiveness by maximising output and meeting the increasing demand for products (Rohleder, 2010).

Shiomi and Wada (1995) identify Fordism as the transformative theory that changed the production industries. Advanced by Henry Ford, owner and director at Ford Motors Company, Fordism focuses on maximising efficiency and improving an organisation's production capacity. Watson (2013) identifies Fordism as an extension of Taylorism and indicates that the management theory deals with improving the systems of production while also increasing the affordability of products offered in a company. This makes Fordism an extension of Taylorism and a modification of the principles under Taylorism since it focuses on the element of affordable

products, which was not previously considered under Taylorism. However, Fordism also has elements of capitalism exemplified by the need to meet the demand for more products to create more wealth by receiving more revenues from products.

The principles of Fordism explain how organisations manage effectiveness. Fordism proposed the need for an assembly line to manufacture more products while standardising productivity through conveyor assembly lines (Tsutsui, 2001). Other than standardising output, the conveyor assembly line helped organisations break work into smaller tasks with workers focusing on their specialised tasks following intensive training by the company's management (Tsutsui, 2001). Therefore, an organisation achieved effectiveness by maximising output with workers repetitively carrying out the same operational processes daily, which enhanced their productivity in the manufacturing industries. More effectiveness was achieved by reducing the costs of production and consequently offering company products at affordable prices. This is evident in the Model T motor vehicle model that is highly touted as having revolutionised mobility within the USA with the vehicle becoming affordable to a majority of Americans who could afford a vehicle previously. To underline the nature of achieving management effectiveness following the implementation of Fordism at Ford Motors, Turi et al. (2015) indicates that the company sold over 200,000 units of the Model T in five years, which surpassed the combined production of motor vehicles by other manufacturing companies with the company selling over 2 million units ten years later.

To differentiate between Taylorism and Fordism, the former focuses on machine and worker efficiency with the latter, which is an extension of the former, combining machine and worker efficiency to minimise the costs of production instead of maximising profits although an organisation consequently achieves profits through mass production and sales. Despite these two management theories posing significant benefits to organisations, different authors have criticised them for their primary focus on processes and productivity with little consideration of the welfare of the employee (Gambino, 2007). However, the management theories have become an essential component of management in the current global business characterised by the need to achieve a higher market share than competitors by implementing strategies that improved

organisational effectiveness to increase productivity within an organisation, which is classic capitalism. This is the case for Amazon as discussed in the section below.

Amazon, Inc.

With its headquarters located in Seattle, Washington, Amazon is the leading internet-based retailer founded in 1884 as an online bookstore to diversify its product portfolio later to include an array of products. The company leads other retailer in terms of market capitalisation and revenues (Jopson, 2011). In recent times, the company has expanded its operates to diversify its product portfolio and target more companies with Amazon achieving this objective in 2015 by reaching customers in over 180 countries while operating websites in about ten other countries (Amazon, Inc., 2016). Due to the high demand for the company's products, the company operates an effective logistical system to achieve timely delivery of orders made by their customers. In the contemporary capitalist business environment, Amazon has borrowed classical management theories of Fordism and Taylorism to

One basic element underlining the evidence of Fordism at Amazon is the company's implementation of robots in the company's warehouses. The robots function together with the company's employees to manage effectiveness in a company that receives over 30 orders from customers every second (O'Connor, 2013). The use of robots is not to replace human workers, but rather to enhance effectiveness in the company's warehouses that operate in a similar manner to assembly lines that were introduced by Fordism. In the assembly line, Fordism principles utilised mechanisation, whose current equivalent is robots, to simplify workers' roles and improve their productivity (Turi et al., 2015). For the same reasons, Amazon has adopted robots in its warehouses that operate in a similar manner as the assembly line did during Fordism.

Simplification of workers' roles is another critical element of classical Fordism theory with managers always evaluating the assembly line to identify areas where the production process could be simplified to increase employees' output (Schoenberger, 1988). In line with this, organisations that use Fordism management principles are continually identifying areas of improvement in which they could simplify employees' work further. This is the case for Amazon

with O'Connor (2013) indicating that employees work with handheld satnav devices that measure their output and identify areas in which the company's managers evaluate instances of time-wastage and reprimand the particular employee. In addition, the management identifies areas that they could simplify employees' work based on the data collected by the devices.

Standardisation is a principle of both Taylorism and Fordism. By standardisation, Taylorism and Fordism focus on standardisation by continually monitoring the production process through the workers' performance and providing instructions to ensure that employees used the same standard way of working that promoted efficiency (Clarke, 2005). Amazon has ensured standardisation by constantly monitoring their employees through the data collected by the handheld satnav devices while also implementing a guiding set of principles known as 'articles of faith' that provide employees with rules "that are part of its daily language and rituals" (Kantor and Streitfeld, 2015).

These 'articles of faith' also apply in the way that the company manages its hiring and recruitment process. In this case, the company underlines the importance of employing the best employees as part of its philosophy. This philosophy further indicates that the company should retain the best employees whose output and productivity is high, which indicates that underperforming employees do not have a future at the company (Kantor and Streitfeld, 2015). By hiring, training and retaining the best, Amazon follows the Taylorism management principles that focus on identifying the right people and hiring them to optimise effectiveness by maximising its output (Rohleder, 2010). By focusing on these attributes, Amazon increases management effectiveness improve their approach to their operation processes to address the high demand from its customers.

The implementation and adoption of these strategies, however, have not been without criticisms. In a similar way in which both Taylorism and Fordism management failed to consider the needs of employees, the situation is the same at Amazon. Despite the success, employees work under a strict and inhumane environment characterised by poor working conditions. Bort (2016) indicates that Amazon's employees are also under constant surveillance that starts with thorough body frisking when leaving and reporting for work. In addition, employees work for

long hours with little pay under constant supervision. The company does not offer any form of job security with the most productive employees only retained while absenteeism is punished through dismissals (Kantor and Streitfeld, 2015). In brief, Amazon is only driven by more profits and more output with Taylorism and Fordism emphasising on managing effectiveness with little regard of employees' welfare.

Conclusion

Contemporary global organisation have a large array of market that they could focus on achieving to maximise their profits. To achieve this objective, effectiveness in management plays a critical role in ensuring that an organisation achieved this objective. Despite being classical management theories, Taylorism and Fordism offer organisations with principles that they could apply successful to improve effectiveness in management by focusing on productivity. These principles have helped Amazon achieve its objective of effective management of its logistical needs. With increased focus on performance and productivity, organisations ignore the plight of their employees, as it is the case with Amazon. Nonetheless, organisations can focus on both productivity and performance without forgetting about their employees' welfare.

References

- Amazon, Inc., (2016). *Amazon.com: 2015 Annual Report*. [online] Available at: <https://www.amazon.com/> [Accessed 7 Mar. 2017].
- Bort, J. (2016). *Amazon promises to change its 'Hunger Games' employee review process*. [online] Business Insider. Available at: <http://www.businessinsider.com/amazon-hunger-games-employee-review-process-change-2016-11?IR=T> [Accessed 7 Mar. 2017].
- Clarke, C. (2005). *Automotive production systems and standardisation: From Ford to the case of Mercedes-Benz*. Dordrecht: Springer.
- Farjardo, F. (1997). *Management*. Manila: Rex Book Store.
- Furnham, A. (2002). *Personality at work*. London: Routledge.
- Gambino, F., 2007. A Critique of the Fordism of the Regulation School. *The Commoner*, 12, pp.39-62.
- Gupta, A., Arora, S. and Westcott, J. (2012). *Industrial automation and robotics*. 2nd ed. New Delhi: University Science Press.
- Hyman, L. and Baptist, E. (2014). *American Capitalism: A Reader*. New York: Simon & Schuster.
- Jopson, B. (2011). Amazon urges California referendum on online tax. *Financial Times*. [online] Available at: <http://www.ft.com/cms/s/0/61828252-ac1d-11e0-b85c-00144feabdc0.html#axzz1RxkefD8m> [Accessed 7 Mar. 2017].
- Kantor, J. and Streitfeld, D. (2015). *Inside Amazon: Wrestling big ideas in a bruising workplace*. [online] New York Times. Available at: <https://www.nytimes.com/2015/08/16/technology/inside-amazon-wrestling-big-ideas-in-a-bruising-workplace.html> [Accessed 7 Mar. 2017].
- McLeod, M. (1983). "Architecture or Revolution": Taylorism, Technocracy, and Social Change. *Art Journal*, 43(2), p.132.
- O'Connor, S. (2013). Amazon unpacked. *Financial Times*. [online] Available at: <https://www.ft.com/content/ed6a985c-70bd-11e2-85d0-00144feab49a> [Accessed 7 Mar. 2017].
- Rohleder, E. (2010). *Taylor's Theory of Scientific Management and the Implications for Contemporary Management Practice*. Munich: GRIN Verlag.
- Schoenberger, E. (1988). From Fordism to Flexible Accumulation: Technology, Competitive Strategies, and International Location. *Environment and Planning D: Society and Space*, 6(3), pp.245-262.

Shiomi, H. and Wada, K. (1995). *Fordism transformed*. Oxford ; New York: Oxford University Press.

Tamura, Y. (2006). Japanese Production Management and Improvements in Standard Operations: Taylorism, Corrected Taylorism, or Otherwise?. *Asian Business & Management*, 5(4), pp.507-527.

Taylor, F. (2016). *The principles of scientific management*. New York: Cosimo Classics.

Tsutsui, W. (2001). *Manufacturing ideology*. Princeton, N.J.: Princeton University Press.

Turi, A., Mocan, M., Ivascu, L., Goncalves, G. and Maistor, S., 2015, May. From Fordism to Lean management: Main shifts in automotive industry evolution within the last century. In *MakeLearn International Scientific Conference on Management of Knowledge and Learning* (pp. 25-27).

Watson, T. (2012). *Sociology, work and organisation*. London: Routledge.

Watson, T. (2013). *Management, organisation and employment strategy*. Hoboken: Taylor and Francis.

