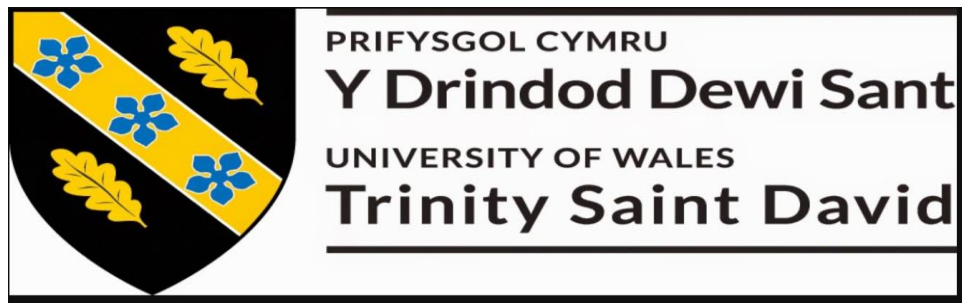




Report on Technology Enhancement and Management Implications.

Subject	- Vision for Future
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Abstract

21st century corporations are confronted to integrate the physical business world and the digital business world. Traditional management theories investigated the methods to manage functions of the physical business world. For instance, Frederick Taylor's scientific management concentrated on the scientific methods to develop the efficiency and the effectiveness of the labour force. Henri Fayol's administrative principles encouraged unity of command, hierarchical organizational structure of top to bottom scalar chain and Max Weber's bureaucratic organization theory's motive towards to rules, principles, orders to create efficient form of organization. Although, these theories were focus on single unit corporations, business functions and deliberate related operational developments. Their observations are on internal business functions. However, 21st century corporations, specially the clothing and textile companies possess numerous business processes using the e-business and e-commerce channels. Such organizations face specific management implications relating to digitalization including manage business functions remotely, globalization and localization, integrated global supply chain, artificial intelligence, business process outsourcing, flexible and customised production, manage intellectual capital. Therefore, this report discusses about the traditional management theories and its implications with reference to the technology advances and in what way to manage efficiently and effectively in the digital age.

01 Introduction

In today's dynamic business world technology play a vital role and it is one of the influential factors that affect the performance of the economy. The rapid growth of technology natives around the world have enhance 20th century corporations to the 21st century. As a result, corporations indispensable to adopt to globalization and localization by identifying the needs of local market and the global market. The clothing industry is moving from physical high street stores to online stores by adopting to the boundaryless technology. The business functions are based on e-commerce and e-business from buying raw materials from the suppliers to sell the product to the end customers.

Therefore, the e-commerce and e-business facilitate customers to select and buy products without visiting to a physical store and which is very continent, time saving and easy for their life style. Similarly, e-business facilitate companies to do their business to business activities through digital platforms. Hence clothing companies do not want to maintain big capital, big factories, big stores or big offices whereas they can outsource and digitalized everything to the low-cost countries and do their business operations using e-commerce and e-business channels. Thus, this **lead** to save cost, time and make extra profit for the company. Correspondingly, the companies can continue their business operations via e-commerce and e-business in the during the pandemic situation. On the other hand, the managers are struggling to manage their online operations due to the current global situation whereas most of the factories, airports and the borders are closed. Most of the clothing retailers manage to operate their online stores but their facing a challenge of delivering the products globally and locally. Due to the global impact companies are unable to maintain their stock levels as they operate their manufacturing in different countries. This will directly impact on the brand image and the brand loyalty of the company.

However, e-commerce and e-business adaptation open new doors to the business world and it has its own advantages and disadvantages. Hence it is a management role to manage the encounters in an effective way. It is essential to identify the management theory discourse the management technique of e-commerce and e-business. Therefore, traditional organizational structure and management theories will be reviewing to address the feasibility of them with reference to the development of technology. Hence, this report aims to understand and critically review the enhancement of the technology in relating to the management implications in the clothing and textiles sector considering the changes and non-changes of traditional models of organizational structure and theories of management.

Second section reflects the insights of e-commerce, e-business and the changes and non-changes in the organizational structure and the management implications in the clothing and textile sector. Third section demonstrate the traditional management theories and the relevance of the theory. Fourth section demonstrate the analysis and the discussion of the traditional theories and 21st century management implications and eventually it concludes the reflection of the traditional theory and the current management implications to improve management.

02 Insights of technology advancement in the clothing industry and the management implications.

2.1 Technology advancement in the clothing industry

World population is more than 7 billion, food and clothing are the essential needs in the society. Hence, clothing industry play significant part in the business world with its size and the importance. Clothing industry is developing day by day with the globalization effects of sustainability, growth, innovation, environmental changes and the uncertain future. Technological advances made the new era of marketing, innovative idea generation and the evaluation in the production. Correspondingly technology play significant role as improve efficiency and the effectiveness in the areas of retail, manufacturing, design, logistic and the management in the clothing and textile industry. As a result, this technology creates cost benefits to the industry by the innovation procedures of fabric cutting machinery, automated stitching techniques, three- dimensional (3D) body scanning, robotic handling, fabric joining systems, material flow systems, digital selling systems. Thus, the technology advances impact the clothing industry to modernize its management systems on the global basis (Shishoo, 2012).

The clothing industry needs revolution of traditional marketing and management systems due to the emerge of e-commerce and e-business. E-commerce allow companies to use electronic and digital channels to manage supplier relationships, associate with the purchasing, identifying customer needs, rationalisation inventory and logistics, develop strategic advantages and implement business re-engineering process, improve and maintain communication within the supply chain. It also provides opportunity for value creation and value capturing and competitive differentiation (Zhenxiang and Lijie, 2011). Supporting, Combe (2006) states that e-business permits companies to network and empower business processes, communication, collaboration with its suppliers, customers and other stakeholders by using internet. E-commerce is buying, selling and marketing products through digital platforms. This enhance to share and exchange information, products and services everywhere in the world without any boundaries of distance and time. Indeed, technology advances encourage innovation, creativity, knowledge sharing, facilitating to the global trade integrating global supply chain, create wealth of the corporations. Moreover, the scope of technology development comprehends the spectrum from localization through to globalization and leads towards boundaryless industry, company or economy. The below figure 1 state the main advantages of digital channels to corporations and customers.

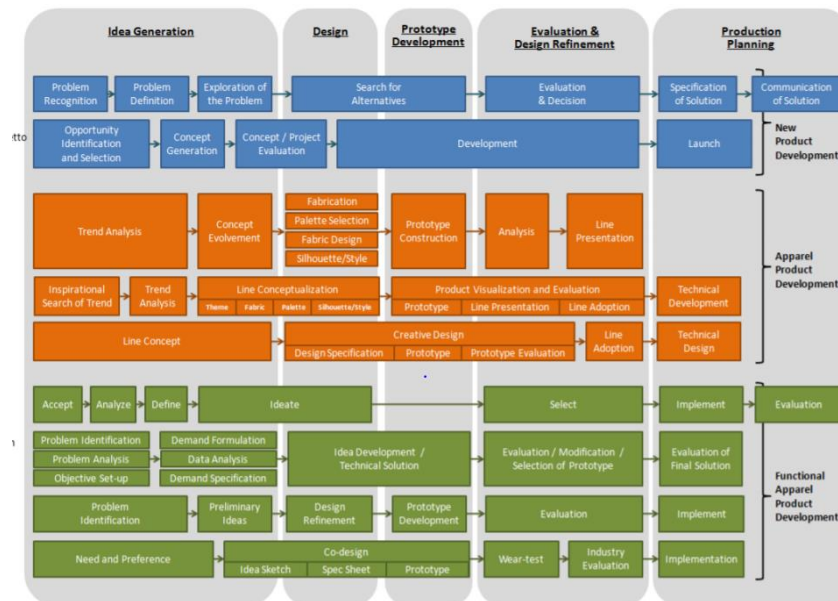
Figure 1 – Advantages of e-commerce and e-business

Advantages of using the internet	
Firms	Consumers
Ease of access	Ease of access
Ease of use	Ease of use
Access to wider market	Access to market information
Potential economies of scale	Convenience
Marketing economies	Lower prices
Improved logistics	Personalisation
Automated processes	Customisation
Network externalities	Network externalities
Improved customer knowledge	One-to-one customer service
Lower costs	Access to internet community
Increased efficiency	Empowerment

Source - (Combe, 2006)

On the other hand, Sanayei, Ansari and Ranjbarian (2010), put forward a different view that advanced technology negatively impacts on the company as electronic channels generate information to the businesses and customers. Whereas they can simply compare, copy and analyse product information with the competitor by one click but if it's offline store sales representatives can assist the customer. Therefore, this similar guidance would required in the online model. Nayak et al.(2015)states that technology innovation poses challenge to the retailers, enterprises and suppliers by changing their processes of manufacturing, retailing and supply chain in a competitive manner.

Figure 2 – Product development process of the clothing industry.



Source – Suh, Carroll and Cassill (2010)

2.2 Management implications due to the advance technology

The development of technology has transformed most of the business processes towards to the digitality. As a result, supply chain transparency concept has introduced to share knowledge and collaborates abilities with the stake holders. This drives to adoption of socially responsible practice to their business processes. The product information is visible to anyone and this will disclose if any company is following unethical practices such as child labour in the manufacturing process, unethical use of resources etc. Blockchain technology enhance the supply chain transparency and it allows managers to use it in a customer service and achieve competitive advantages (Francisco and Swanson,2018).

Tudor (2018) articulated that clothing and textile industry is facing for challenges due to technology enhancement as new technology require high investments, volatile customer preferences, relocation arbitrage on labour costs, innovative ideas, high competition, regional industry protectionism and new management skills. Nevertheless, Huq, Chowdhury and Klassen (2016) demonstrated that clothing enterprises required to improve their social management capabilities in relating to the social preferences if they want to survive in the global market. Hence e-commerce and e-business changed the economy to a new economy whereas clothing and textile industry has moved to the 21st century. Figure 2 address the management issues in relating to the old economy before the technology advances and new economy.

Figure 2- Key changes between old and new economy

Issues	Old economy	New economy
Economy factors		
Markets	Stable	Dynamic and complex
Competition	National	International and global
Structure	Manufacturing	Service
Value driver	Physical capital	Human capital
Business factors		
Organisation	Hierarchy	Network or virtual
Production	Mass	Flexible, customised
Growth driver	Capital and labour	Innovation and knowledge
Technology driver	Machines	Digital and electronic
Competitive advantage	Low cost/high production	Innovation, speed, quality
Relationships	Independent	Collaborative
Consumer factors		
Tastes	Stable	Dynamic, segmented
Skills	Specialised	Multiple and flexible
Educational needs	Trade orientated	Lifelong learning
Workplace relations	Confrontational	Collaborative
Nature of employment	Stable	Insecure, opportunistic

Source - (Combe, 2006)

Due to e-commerce and e-business adaptation in the clothing industry management complexity needs to be considered in the manufacturing, product development, marketing, and the other business processers. As a results product life cycles are short, risk of maintaining stock levels are high due to the new products availability in the market, manufacturing techniques are changing, unpredictable demand, high competition with the global companies (Mostard, Teunter and Koster,

Lijie2011). Moreover, Kapelko and Lansink (2015) states that the clothing and textile industry is facing for management challenges due to technology innovation. This increase the globalization, internationalization and liberalization of the industry. Hence it requires high quality business processes, high tech machines, less labour intensive, differentiation, innovative products, artificial intelligence, secure electronic payment systems, online stores to compete with the global competition and the dynamic environmental situations. In the extant study of Lu (2017) declares that the contemporary industry 4.0 is encompasses to achieve high productivity, high level of automation and high level of operational efficiency. Hence it pointed out five key characteristics of the industry 4.0 are customization of production, digitalization, automation, knowledge management, value creation, human machine interaction, optimization, adaptation, data exchange and communication. Lu further states that the current industry integrated with digitalization where manufacturing, customer service and the entire value chain based on the information, big data and cloud computing.

Nevertheless, Tuten and Solomon (2014) demonstrates that internet is the backbone of the society whereas web 1.0 moved to web 2.0 with the feature of two-way communication. People share information among others through social media channels whereas it is effective channel for companies to share product information. This comprises of beyond the buying and selling, it includes collaboration, communication, conveyance and cultivation among interconnected network of people, organizations, communities. Furthermore, digital media changed traditional 4 Ps concept into 5Ps concept introducing 'Participation' because it is not one-way communication. The success of the corporation is depending upon the capabilities of the management and the adaptation to the technology in an effective manner.

The preceding literature investigated the management implications due to the technology advancement in the clothing industry. There are as follows,

- Supply chain transparency
- Volatile customer preferences
- High competition due to globalization
- Regional industry protectionism
- New management skills
- Improve social management capabilities in relating to the social preferences
- Product life cycles are short
- Risk of maintaining stock due to market uncertainty
- Require of high-quality business processes
- Less labour intensive
- Require high level of product differentiation
- Innovative management skills
- Artificial intelligence
- Innovative online stores to compete with the global competition
- Dynamic environmental situations
- Customization of production
- Automation of the business processes
- Human machine interaction
- High level of data exchange and communication
- Manging the digitalized business functions
- Managing employees, teams and projects through remote access
- Management of intellectual capital

03.Models of organisational structure and theories of management

This section of the report analyses and evaluate the traditional models of organizational structure and management theories with reference to the technology development in the clothing industry.

3.1 Henri Fayol's theory

Henri Fayol was a mining engineer and became the managing director of the same company with his exceptional management knowledge. His management style made the company to achieve success in the industry whereas other company lost their market share (Wood and Wood, 2002). Fayol believes management is science as it guides to managerial action and provide conceptual basis. Fayol introduced six management elements to manage company or industrial organization whether it is complex or simple. They are:

1. Commercial activities (selling, buying, exchange)
2. Technical activities (production, manufacturing, adaptation)
3. Managerial activities (planning, organizing, control, coordination, command)
4. Financial activities (search for and optimum use of capital)
5. Accounting activities (costs, balance sheet, stocktaking, statistics)
6. Security activities (protection of property and person)

Fayol distinguish between managerial skills and technical skills. Employees need to be capable in all the skills irrespective of the level and technical skills are essential in managerial level. Managerial skills are important to the employees who are in the higher level of the hierarchy of command. Fayol's principal of management recognised that manager must perform planning, organising, coordinating, commanding, controlling activities in the actual work place. Fayol developed 14 management principles in his management theory as they are flexible and can adopt in any situation (Pryor and Taneja, 2010).

Figure 3 – Fayol's Principles of Management

1. Division of work	Reduces the span of attention or effort for any one person or group. Develops practice and familiarity.
2. Authority	The right to give orders. Should not be considered without reference to responsibility.
3. Discipline	Outward marks of respect in accordance with formal or informal agreements between firm and its employees.
4. Unity of command	One man one superior!
5. Unity of direction	One head and one plan for a group of activities with the same objective.
6. Subordination of individual interests to the general interest	The interest of one individual or one group should not prevail over the general good. This is a difficult area of management.
7. Remuneration	Pay should be fair to both the employee and the firm.
8. Centralisation	Is always present to a greater or lesser extent, depending on the size of company and quality of its managers.
9. Scalar chain	The line of authority from top to bottom of the organisation.
10. Order	A place for everything and everything in its place; the right man in the right place.
11. Equity	A combination of kindness and justice towards employees.
12. Stability of tenure of personnel	Employees need to be given time to settle into their jobs, even though this may be a lengthy period in the case of managers.
13. Initiative	Within the limits of authority and discipline, all levels of staff should be encouraged to show initiative.
14. Esprit de corps	Harmony is a great strength to an organisation; teamwork should be encouraged.

Source - (Cole, 2008)

Division of labour concept required specialized employees to perform their task efficiently. The work is divided in to small rudiments and assigned in to specialised workers. The manager has authority and responsibility to achieve organizational goal and authority is the order or power to exact obedience. Manger should be a inspire to the employees and employees should obey to the manager. Manger has power over employees and the entire organization. Fayol presented 'one boss rule' where manager is the centralized person who can make decisions and subordinators need to follow the rules. However, Fayol encouraged flexibility, freedom to create innovative ideas and maintain high morale and the unity in the workplace among the employees (Pryor and Taneja, 2010).

Moreover, Fayol states that managers should be responsible to create organisational structure where it fits to achieve organizational goals by using human and other resources effectively. He believes managers should exercise staff discipline, ensure the unity and command exists, exercise authority, manage and supply human resources and other resources, ensure there is a clear command within the company, coordinate key activities through centralisation and provide unity of direction to the employees in the organization (McGrath and Bates, 2013). In general Fayol declares that without the clear vision and management experience these principles will not work well. These principles enable to achieve best outcomes if the manager is adroit and best administrator. Therefore, Fayol demonstrated five basic tools for administration.

1. Each department should carry out general survey to analyse the company present and future objectives including what the leaders wants to achieve and the future.
2. Organization should have long term business plan including the set of activities, strategies and objectives of departmental wise to achieve overall organizational long-term plan.
3. Daily, monthly, yearly operational reports should generate to evaluate the business performances.
4. Department heads are responsible to communicate the insights generated through meetings to coordinate and control the cross functions.
5. The authorities and responsibilities of each employee (who reports to whom) should be clear and depicts in the organizational chart.

According to Fayol these five tools are important in any organization and any stage of the organizational life cycle. These strategic and tactical tools have different organizational purposes to strengthen organizational capabilities to achieve goals and excellence (Pryor and Taneja, 2010).

3.2 Relevance of the Henri Fayol's theory

The 21st century corporations are based on the technology, whereas web 2.0 concept introduced to change the world tendencies of world wide web for the intention of enhance information sharing, creativity, increase collaboration and improve the way of functioning the processes. As a result, business corporations concentrated more on their business models and processes in a competitive manner to introduce differentiation. This differentiation includes, different organizational structure, management methods, customer and supplier management, reputation management, product and service differentiation. Indeed, it is vital to analyse the Fayol's theory with the current digitalize management concept.

The key point is the Fayol's view of organizational structure. He proposed hierarchical transmission of orders known as hierarchical organizational structure where top down approach to manage the employees. In this kind of approaches leader or the management make decisions and pass them through divisional heads to the lower level employees as one boss rule and all the responsibilities are carried out by the top-level managers. In contrast, Tidd, Bessant and Pavitt (2005) argue that due to technological and market change, flat organizational structure and modernised business methods will improve the innovation and efficiently of the products and services rather than the top down structures. For instance, Serifi and Dasic (2012) define that organizational structures are not permeant due to the contemporary technology change, organizational structure could be flexible, modified according to the proportional development of the company. Whereas, the digitalised organizational structure displays by; functions, products, processes, design, division, contingency, territories, re-engineering, strategic business units rather than traditional hierarchy.

Fayal began to separate duties and responsibilities of manager and employees; every department has a head to control the functions, department heads and the managers are the only people who can lead the company and encouraged centralization of decision-making process. On the contrary, Mirkovic et al., (2019) claim that haste and collaboration are the critical success factors of digital based contemporary companies; meaning decentralization of decision making, reducing the hierarchical levels and encourage collaboration among the managers and employees.

3.3 Frederick Taylor management theory

Frederick Taylor's management theory is contrasting the management theory of Fayol's. Taylor as a father of scientific management, he presented the guidance and significant era in the development of the management thoughts by believing that it is important to concentrated on the mechanisms of work rather than the structure within which work is carried out. (Taneja, Pryor and Toombs, 2011). Taylor's theory of management explores and synthesises to improve the labour productivity in the workflows. Indeed it concentrate on the time worker took to perform the task, the type of material used for it and how to optimize the personal level of productivity and the techniques to achieve the efficiency through formulating a process to record the time and resolution it took to perform the task, a type of productivity coefficient (Bell and Martin, 2012). According to the Tayler's principles planning function has separated from the work function. Taylor advocated that low level supervisors and line workers are not capable to plan the work process therefore managers are responsible to perform the planning function. Although management operates through planning, organizing, leading and controlling functions and Taylor has described them accordingly. Refer figure 1, (Blake and Moseley ,2011).

Figure 4: The four function of the management

Management Function	Definition of Function	Quote from Principles of Scientific Management
Planning	Assess current position and where organization should be in future. Determine appropriate course of action.	"All of the planning which under the old system was done by the workman, as a result of his personal experience, must of necessity under the new system be done by the management in accordance with the laws of science. The man in the planning room, whose specialty under scientific management is planning ahead, invariably finds that the work can be done better and more economically by a subdivision of the labor" (p. 38).
Organizing	Get prepared and organized. Make optimum use of the resources required to successfully carry out plans.	"Almost every act of the workman should be preceded by one or more preparatory acts of the management which enable him to do his work better and quicker than he otherwise could" (p. 260).
Leading/ Directing	Supervise actions of staff.	"When one proceeds to study each workman as an individual, if the workman fails to do his task, some competent teacher should be sent to show him exactly how his work can best be done, to guide, help, and encourage him, and, at the same time, to study his possibilities as a workman" (pp. 69-70).
Controlling/ Monitoring	Establish performance standards. Report and evaluate actual performance.	"The work of every workman is fully planned out by the management at least one day in advance, and each man receives in most cases complete written instructions, describing in detail the task which he is to accomplish, as well as the means to be used in doing the work (p. 39). Every element in any way connected with the work was carefully studied and recorded (p. 55). As each workman came into the works in the morning, he (received) two pieces of paper, the second of which gave the history of his previous day's work" (p. 68).

Source: Blake and Moseley (2011)

Kitane (2016) asserts that Taylor focuses on to improve the efficiency, effectiveness and the productivity of the workforce along with their performances. To be precise, this theory distillate much on the specialisation, separation of work and training of workers in addition of physical incentives. The four principles demonstrated Taylor's philosophy as follows,

1. Develop best way to perform the task by deciding best scientific management method. This consists of analysing the individual's work and undertake most efficient method by measuring and examining the first-class worker's approaches and implement it as expected capacity.
2. Employee selection and the training is management task and it should do in systematic way to find which employee can undertake the task. Tayler believes that all the selected employees have ability to perform the task as 'first class' at same job.
3. There should be clear separation of responsibilities and work between workers and managers. Workers are directed to perform their task and managers concentrate with supervision and planning
4. The managers must corporate with the workers in friendly manner to ensure that the task is done in the scientific manner.

The labour and the management both need to coup with their individual task to make this principle success and it leads towards higher production (Kitana, 2016).

3.4 Relevance of the Taylor's theory

The underlying principles of Taylor's contribute to the management practices including job analysis, work design, task specialisation, which employee is fitting to the job, assembly line production practice, production control and allocations and intensive schemes, improve the efficiency of the production (Giannantonio and Hanson, 2011). Hence, Taylor pointed out the improvement of production and labour force efficiency. Whereas in the current technology-based corporations are not only concern about the quantity it also concerns about the differentiation, innovation and the customisation of production, artificial intelligence and less labour-intensive processes. Algeddawy and Elmaraghy (2011) review that corporations moved from economy of scale to economy of scope in the 21st century. The products are no longer produced as 'one fits to all' and customers prefer customised products. Therefore, the requirements of variations encounter from products to the level of components and parts, which increases the intricacy of the managing these functions. The study of Porter and Heppelmann (2005) demonstrate that the modern companies improve their value chain functions efficiency by controlling, generating information and reshaping the production capabilities through digitally and remotely using digital platforms. Thus, this digital infrastructure and the data enable new production capabilities.

Nevertheless, Taylor concentrated on improving the productivity by increasing the labour force efficiency, meaning workers need to work like machines to attain their targets, labour reduction makes extra profits to the company. The main criticism and the limitation are that Taylor ignored human aspect and the job satisfaction. Jones, Temperley and Lima (2009) Investigate the interesting aspects in this regard. Primark group practiced this scientific method to increase their production by ignoring the job satisfaction and ethical practice. However, due to the feature of supplier chain transparency in the context of e-business 2 era it was highlighted, and it created bad brand reputation of Primark. Though, they competitively changed their practice in order to survive their market and they branded their label as 'brand behind labour' and empower the labour force in an innovative manner.

3.5 Max Weber's Bureaucratic Management theory

Max Wiber introduced the bureaucratic management theory where managing and organising the organization through structured procedures, rules, and guidelines. Weber concentrates on rules, procedures, labour division and hierarchy within the corporation and it strengthen corporation by executable rules, policies, regulations and clearly define hierarchy of authority. Bureaucracy present reliable employee behaviour, no overlapping of job responsibility and certain predication of the system behaviour. The corporation is independent from its employees and it continues to grow if the individuals stay or leave (Kitana,2016). Although Mohmood, Basharat and Bashir (2012) illustrated that the main attention on this theory is on the organizational structure. He stated that strong lines of control and authority can be established through dividing organization into hierarchies. Weber proposed that corporations should maintain consistent comprehensive procedures to pre-planned tasks. Weber introduced eight principles of bureaucratic management;

1. Written Rules

There should be well consistent rules and regulations in corporation and it should well defined and in written foam.

2. System of Task Relationship

There should be recognised scheme to achieve the task and the relationship between system and task of the corporation.

3. Specialized Training

There should be proper training system according to the task allocation and the different types of trainings, including managerial training for managers and job training for the workers.

4. Hierarchy of Authority

This theory believes top down approach of authorly level. Whereas authorities are assigned to managers as per their position in the management pyramid. Major focus on the rational authority system.

5. Clear Identified Duties

There should be proper way to recognised individual duties and the reporting system. Every worker must know to whom they report.

6. Paper Work

Webber believes that the organizational systems will run systematically if they written down everything in papers.

7. Fair Evaluation and Reward

Webber concentrated on implementing systems to evaluate the workers according their commitments and competencies and reward them accordingly.

8. Maintenance of Ideal Bureaucracy

Webber encouraged to generate Ideal bureaucracy in the organization. It can create through proper training and reward system (Mohmood, Basharat and Bashir,2012)

3.6 Relevance of the Max Weber's Bureaucratic Management theory

Weber encouraged ideal bureaucracy, rules and regulations and hierarchy of Authority in the organization. On the other hand, in today's technology-based business world managers are less authoritative and moved towards new management styles based on two-way collaborative communication systems. The employees are contributing to make decisions on behalf of managers, individually take the responsibility of their own task and communicate them with the entire organization using technological methods. The information is away from just one click in one second to anyone irrespective of the manager or worker. On this context, Greenwood and Lawrence (2008) exemplified that Weber's philosophies have ossified within the technological business world. Today, the technology development empowers new form of organizations for instance, inter organizational networks enable to share information to everyone, network society, knowledge-based work. It demoralises authority of the workplace and create tensions between hierarchical and knowledge based organizational structures. Ehiobuche and Tu (2012) illustrated that this theory suggested to recruit administrators based on technical qualifications. Whereas current corporations concern on the capabilities, knowledge, experience and individualism rather than paper qualifications.

However, Weber was pointed out that it is obligation of change corporations from the value-oriented thinking to technocratic thinking. Whereas civilians pursue technical results at the cost of humanistic contents (Mohmood, Basharat and Bashir, 2012). This influence is arguable and required to be re-examine from the current aspect as the today's corporations are based on intellectual capital, artificial intelligence.

Nevertheless, bureaucratic organizations are closed, advocated impersonal, lack of flexibility and rigid as it destroys the innovation, creativity, personal development and value create in the corporation. Therefore, the unmatched characteristics of Weber's theory demonstrate that this theory is incapable to address the current digital based business word complications.

04. Discussion and the Analysis

During the industrial revolution the human manual work has transformed to the human machinery work with the effect of technology advancement. Taylor's practice of systematic methods to improve productivity, labour force efficiency, task standardisation, reward and punish systems worked well for corporations. The theory became famous in the late eighteen and early nineteen centuries for purpose of labour productivity and economic efficiency.

During the late nineteenth and early twentieth century Webber introduced ideal bureaucracy for large-scale corporations by following the industrial revolution. The idea of bureaucracy is hierarchy of management, expert training, written records, prioritise office activities over the other activities, practice specific type of rational, legal and authorised type of administrative structure to manage the organization. While Weber focus on impersonal organization and little human level collaboration between its members Fayol contended personal effects and encouraged team work. Nevertheless, Fayol and Taylor both focused on productivity of work, hierarchical division of labour, chain of command, organizational structure, formal rationality, authority and power is with the management.

However, many decades have passed since these theories emerged and the economies, business concepts, nature of business practice have changed a lot in overtime. In twenty first century corporations are based on technology, whereas corporations manage their business operations through e-commerce and e-business channels. The emergence of new technology in general has influences the way of companies managed. Clothing and textile industry are one of the most disrupted industries, in which the adaption process required innovation in the business creation. However, innovation or transformation can achieve not only incorporated with the technology, but also by effective management methods. Therefore, it is vital to discuss the identified management changes with reference to the technology advances in the clothing and textile industry.

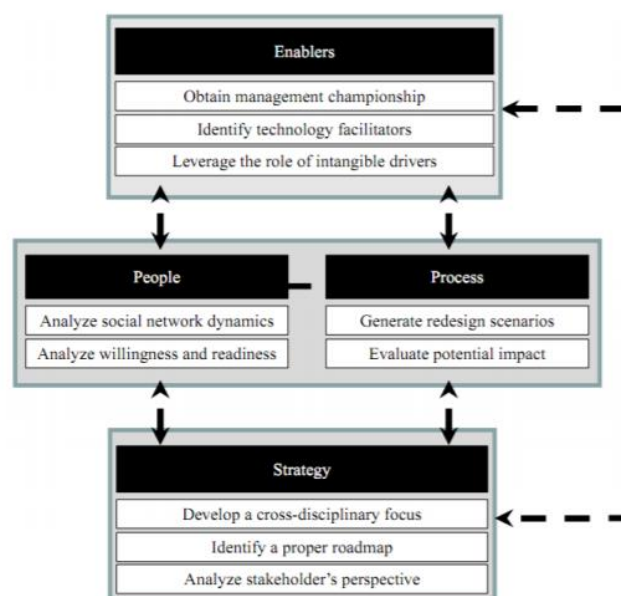
E-commerce activities growing rapidly, and it predicted that \$27 trillion e-business activities from the retail sector in 2020 (Gerard, 2019). Human resource management can see as significant and important function for any organization. Traditional theories are based on autocratic management styles whereas manager perform all the important functions including decision making, controlling, commanding, directing, organising. Employees were strictly control and treat like machines to increase productivity. However, Sparrow, Brewster and Harris (2004) demonstrate that transformation of technology has changed both organizational structure and geographic boundaries and therefore the space at which globalization impact on human resource function. In this context 21st century corporations manage internationally mobile employees. Most of the well establish clothing retailers maintain or outsource their production and other operations in globally and manage the team through digital platforms. As an example, Zara group operates worldwide, it has 3000 stores in 96 counties including both online and physical stores. They have implemented innovative and employee-oriented methods to work and collaborate with its employees worldwide (Anon.,2019).

Nevertheless, bureaucracy management theory suggested to manage and control employees through rules, regulations and written paper work. However, this method is unable to practice in the current e-business context. Because Sparrow, Brewster and Harris (2004) stated that human resource management (HRM) process is complicated due to the global intervention, therefore need to implement international human resources strategies considering the national context which operates in large scale. These strategies accommodate flexibility, need for grater unit diversity, more internal stakeholder influence, personal development and more personal insights to the employee's

live and family situations. Laumer, Eckhardt and Weitzel (2010) points out that e-business transformed the human resource management (HRM) to electronic human resource management (EHRM) by contributing competitive edge to manage better management capacity. Thereby it introduced human resource information system (HRIS) to secure and store employee information in digital space. Nevertheless, it has created open and flexible working culture where employees can work anywhere in the world by the concept of new ways of working, thus this include flexible time, flexible place to complete their work without supervision and disturbance. Human resource management function through remote access. Intellectual capital management and artificial intelligence are also new features of the e-business environment.

Moreover, production and operations management implications are under and vigorously challenged in the curiosity of competitiveness. According to the traditional theory managers are responsible on the production and operation functions including develop the production capacity, speed workers, identify best methods to perform the job, allocation task to the employees, organizing, controlling, improve efficiency and the effectiveness of the production and decision making. Managers are encumbered with the work due to centralization. However, Kayabadsı and Gumus (2012) argued that the practical evidence of e-business adopted corporations confirmed that the organizations objectives, goals can be achieved through an integrated view with collaboration with the stakeholders, identifying and create flexible organizational culture to develop creativity and innovation of the employees and successfully managing the intellectual capital. The individual approach and open organizational structure, and the entire organizational atmosphere will be promoted competitive advantages to the company. Productivity can be improved by developing resource configuration and adapting to the innovation and differentiation. Nevertheless, all the stakeholders are collaboratively responsible to achieve individual and corporation goals, whereas e-business technologies built to perform production and operation functions by improving the connection between all the stakeholders including, employees and supply chain members. Please refer figure 4 for business process and organizational structure of an e-business cultural organization.

Figure 4 – Organizational structure of 21st century corporation



Source (Kayabadsı and Gumus, 2012)

Chen, Wang and Chiou (2009) also exemplified that e-business open their markets to the world and there by production and operation functions moved towards multinational, interconnected and collaborative models. It motivates decentralization, individualization, creativity, innovation, collective decision-making processes and employees and managers are responsible to carried out their own task. Therefore, today's production function is flexible, rapidly responsive and agility address new ways to run the production than the past. The need for nimbleness for competitiveness has been associated with the e-business environment and the management implications needed to be considered accordingly. Companies transform value chain activities by adopting to the internet technology. Electronic business or internet based digital platforms (e-commerce and e-business) are considered as most significant information technology innovations in the 21st century. Thus, this includes the purchasing from upstream suppliers and selling products and services to downstream customers through internet platform in the existing IT infrastructure (Zhu et al., 2006).

However, managers were the only people who can make organizational decision according to the traditional management theories, Whereas, decision making process is complex and different in the 21st century corporations due to the e-business based business environment. Kayabadi and Gumus (2012) demonstrated that decisions are made by collaborative manner where there is need to consider the inter organizational relationships between managers, employees, and other stakeholders who participate to solve problems, make decisions jointly to achieve goals. Thereby, (Chen, Wang and Chiou ,2009) stated that collaborative management is important aspect of e-business system for information exchange. General and multi-tiers collaborations are two types of it. General collaborative type deals with manufacture vs distribution collaboration, procurement vs manufacture and inventory vs distribution collaboration. The multi-tiers collaboration comprises many activities of the e-business systems; distribution logistics of global logistics management contains component or material supply, inbound and outbound logistics and production. These global management systems in e-business enhance speed of the production, productivity, differentiation, value creation, reaching to new customer and sharing knowledge across the entire organization for the competitive advantage.

Eventually, traditional theories were focus on mass production and they were not considered about the customization and customer preferences. Customised and designer clothing products are very popular due to the e-business and e-commerce affects. Traditional one-way communication marketing channels transformed in to two-way communication. For instance, customers are demanding quality, differentiation and many features of the product. Eryuruk (2012) states that the most important and concerned change in the clothing industry is the greening concept. Technology has improved customer and social preferences and as a result, society is concern about eco friendly products to protect the environment. The competitive environment forces clothing industry to adopt their business functions align with the greening concept.

Moreover in 21st century corporations are dynamic and competitive. Global companies make huge profits by managing their corporations in dynamic and innovative manner by achieve competitive advantages. On the other hand, some local corporations are struggling to adopt to the innovative management methods due to lack of management skills and knowledge. Therefore, it challenges them to survive in the global market if they do not adopt to the e-business environment. It could argue that traditional management methods are not adequate to accomplish current e-business adopted corporations due to the above stated facts.

05. Reflection of the traditional theory and current management implications

This table reflects on the current management implication derived from the theoretical evidence of section two; and how traditional theories have viewed these management (theory from section three)

Management Implications	Traditional Theory
Supply chain transparency	Managers are responsible to maintain the effectiveness of the supplier chain and Webber encouraged to manage all the business functions by rules and regulations. However, traditional theories have not disclosed methods to improve the supply chain transparency.
Volatile customer preferences	Concern about the mass production and one fits to all rules. Less differentiation. Therefore, the traditional methods are not appropriate to address this.
High competition due to globalization	Traditional theories encouraged economy of scale whereas current business world is based on customer preferences and differentiation.
Regional industry protectionism	Managers are responsible to achieve goals and increase market share but there are no proper methods as how to protect the company from international competitors.
New management skills	Provide training and created management-based culture where they can make decisions. However, current trends are towards innovation management, collaboration and employee empowerment.
Improve social management capabilities in relating to the social preferences	Concern about the increase productivity and lack of social capabilities.
Product life cycles are short	Produced same product over the long period of time.
Risk of maintaining stock due to market uncertainty	Traditional theories were not concern about the uncertainty
Require of high-quality business processes	Traditional methods were considered to improve productivity through creating efficient labour force and not encouraged to implement business processes to support the current market challenges.
Less labour intensive	Methods are based on explicit analytical methods to improve labour productivity.
High level of data exchange and communication	One-way communication encouraged in traditional methods whereas manager is the only person who can make decisions and employees are aware only the management decisions.
Managing the digitalized business functions	Traditional methods are not adequate to address this implication.
Managing employees, teams and projects through remote access	Managers manage the teams and employees in the physical work place and the theory has not address the methods to manage employees remotely.

Management of intellectual capital	Traditional management methods are not capable to address this implication.
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The above discussion demonstrate that traditional theories are not capable to address the current management implication and therefore it could conclude that traditional management theories are out-dated in the 21st century economy.

06.Conclusion

Taylor's theory of scientific management focused on increased production through developing scientific management methods; scientific selection of employees, training them, proper compensation methods to the fast and high-quality workers, identical division of work and clear responsibility between workers and managers.

On the contrary Fayol's administrative management theory concern on the work and it respect worker. Planning, organising, controlling and leading are the main functions of theory. Comprised division of work, unity of command, authority equity and order, unity of structure are significant principles among fourteen principles in this theory.

Nevertheless, Max Webber's bureaucratic management theory stresses on the ideal structure of organization. This theory comprises with eight principles including written book, written rules, authority of manager as major principles.

However, it could argue that technology improvement fascinates the economy and corporations needs to adopt to the technological innovation if they want to alive in the market. Technology has changed the entire organization structure and relatively management. E-business models are part of new economy and it suggested that management is the most critical success factor in this economy. Thus, the adaptation process is based on the management design. This e-business could manage by adopting to the electronic management procedures; whereas management need to identify the internal capabilities, challenges, future trends and innovative process in a different manner.

Whereas traditional management theories are inadequate to represent the innovative solutions for the economic changes with reference to the technology advances. Therefore, it concludes that the traditional theories are not suitable in the contemporary business nature. Thus, this led management theorist to rethink or innovate the management theories by vision for future aspect. These changes could be focused on modernization of management towards to create innovative principles which have power to explore future visionary managerial orthodoxy.

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