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Report: Visions for the Future Theoretical Perspectives on Management

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Visions for the Future: Theoretical Perspectives on Management

Introduction

This study will investigate management theorists and how their theories are used in current organisations. The work is subdivided into three parts. First, the project will look at how Taylorism, Bureaucracy, and the Competitive value theory have affected modern organisations. Second, the project will compare management theories in the public health sector of the Democratic Republic of Congo with the UK National Health Service (NHS). Third, the project will examine contemporary arguments about the impact of technology on the healthcare industry, as well as how these discussions have affected the nursing profession.

Part 1 The management theory jungle and the views of different theorists and their theories to contemporary management issues

The goal of this section is to investigate various management theories and how they change over time. Management theories started in the nineteenth and twentieth centuries, and they did emphasize a logical and scientific approach to management research. At that time, many organisations faced big complex issues and there was a necessity to develop new fresh viewpoints to coordinate and control activities within companies; the theorists equipped businesses and organisations on how to structure and organise activities within organisational settings (Wren and Bedeian, 2009).

1. 1. Frederick Taylor's Theories of Scientific Management

Management theory shaped management thinking, and the key figure, among others who are considered the founder of the scientific management concept, is Frederick W. Taylor (Taylor, 2003).

Frederick Taylor defines scientific management as a system established by industrial engineers to serve the common interests of employers, workers, and society at large by eliminating unnecessary wastes, improving production processes and procedures, and distributing products in a just and scientific manner (Hoxie, 1915).

Taylor's work was creative; at first, he focused on tasks such as staff recruitment and training, job design, inventory control, and pay and remuneration. Furthermore, Taylor's initiatives revolutionised industrial workers and allowed them to earn lower wages and attain intermediate Positions. Moreover, his theories have allowed many of the world's impoverished countries to become world-class rivals in a short amount of time. (Wren and Bedeian, 2009).

The publication of his book titled Scientific Management (Uddina and Hossainb, 2015) contains three publications that were initially published individually as Shop Management (1903), The Principles of Scientific Management (1911), and Testimony Before the Special House Committee (1912). Taylor wanted to reduce pressure between managers and employees by applying scientific reasoning to establish new management concepts and processes. Contrary to widespread belief at that time, Taylor argued that by standardising tasks and working conditions, with high compensation for success and loss, employees' production could be enhanced (Taylor, 2003).

Taylor's principles to scientific management can be summarized as follow:

- Using scientific approaches to determine and standardise the optimum way to perform a task (Standardisation)
- A clear separation of roles and responsibilities in the workplace (Division of labour)
- Employees that do well are rewarded accordingly (Efficiency and Work Measurement)
- Employees are strictly supervised and subject to a rigorous structure of power (Organisational Behaviour).

Standardisation

Taylor (1911) proposed standardisation in a way to perform a task, to eliminate inefficiencies and increase workplace performance; he attempted to standardise organisational procedures on top of tools, machines, movements, and jobs; He employed the latter in his efforts to achieve good relations between management and labour; Taylor's task segmentation and management, as well as piecework, a differential compensation structure, were all backed by standardisation (Locke, 1982).

Division of labour

Taylor (1911) advocated for each worker to be allotted a specified number of tasks, based on time invested. He felt that if people were given explicit difficult goals, their performance could improve. He urged for workers to be provided daily feedback from their allocated jobs (Taylor, 1911).

Efficiency and Work Measurement

According to Flynn (1998), the study of time and motion in workload is one way for increasing efficiency. The goal of these strategies is to break down work into component pieces or motions to determine the most efficient and effective ways of conducting work to optimise output and avoid loss of time and money. Therefore, it is important to assess how quickly work should and could be completed by workers (Taylor, 1911). This will allow and predict how much is the and the amount of money to pay for the same production.

Organisational Behaviour

Taylor's attempts to improve productivity by the analysis and management of organisational behaviour, which, according to Fry (1976), are significant contributions in organisational behaviour. This approach of Taylor, like McGregor's theories (1960) of Theory X, states that people are normally lazy at work; therefore, it is important to apply scientific management methods to handle difficulties and remove barriers to production by adhering to certain scientific principles, such as job completion and reward. Taylor used his scientific management philosophies and procedures to replace earlier methods of controlling initiative and motivation (Fry, 1976).

Scientific management in contemporary organisations

Even though many managers and leaders do not agree totally with the hypothesis behind Taylor's theory, a lot of companies use Frederick Taylor's core theories of scientific management in organising and creating their tasks in today's context (Pruijt, 2000) like in the nursing industry, where working hours and task division within nurses and healthcare workers are applied in clinics. (Paivi et al., 2016). Many large corporations have adopted Taylor's concepts and implemented them well (Peaucelle, 2000).

Criticisms to scientific management

Taylor's Scientific Management has both people who supported the work and those who negatively commented about his theories. Few critiques of Taylor's work are as indicated in the following table 1.

Criticisms	
Positive critiques of Taylor's Theories	Negative critiques of Taylor's Theories
Taylor's method was unique in that its reward structure was determined by how well a person performed. However, it makes sense that extending the original incentive system to a team or workgroup would result in a result that is appropriate to today's business (Halpern et al., 1990)	Taylorism was criticised for transforming the worker into a "machine." Work was repetitive. (Halpern et al., 1990; Locke, E. A. 1982)
Chandler (1962) noted the fact that the employers' obligation is to look after their employees' and their interests, as well as the organisation's.	Scientific management necessitates an exceedingly high division of labour that requires the bare minimum of abilities. As a result, employees had little incentive to grow and develop on the job. (Halpern et al., 1990)
Taylor (1903, 191) consistently advocated for staff training. Similarly, Henry Ford (1923) followed a strategy of offering considerable training to employees, and he expected people to quickly master their tasks in order to remain with the business.	Taylor's systems were criticized for failing to investigate workers' feelings and for failing to brief them on the aim of Taylor's time research approaches. Taylor's approach also failed to recognise the worker's social and psychological requirements, as well as concerns about poor working conditions and humiliating treatment (Halpern et al., 1990)

Table 1 Criticisms on Taylor's Scientific Management

1. 2. Max Weber's theory of bureaucracy

The life and the career of Max Weber (1864–1920) ran concurrently with those of Henri Fayol and Frederick Taylor. He was born in Germany to rich parents with social and political ties. He was a first-rate scholar with interests in sociology, theology, economics, and political science (Wren and Bedeian, 2009). Max Weber is regarded as one of the twentieth century's most influential social thinkers.

His legacy contains a special method for investigation and interaction with political and cultural concerns. The Weberian approach may be seen as both a "paradigm" for studying sociological phenomena and a set of concepts that define the subject of study, such as economics, authority, division, theology, legislation, society, and research (Hanke et al., 2019).

Sociology, Bavarian Academy of Sciences and Humanities in Munich

Max Weber (1864–1920) is considered the father of the organisation theory of bureaucracy.

In the book "Economy and Society" published in 1922, he exposes his ideas and theories on bureaucracy, and his ideas were acclaimed as a model of success and progress, and this was viewed as a sign of the most efficient and most effective organisation in the field of management. Originally, organisation was like a personal thing or a family thing; however, he thought organisations should lead impersonally, where separate roles were defined (Wren and Bedeian, 2009).

Max Weber's theories on bureaucracy are intertwined with his ideas on authority legitimacy. He researched concepts of leadership and authority legitimacy. Weber distinguished authority, power, and control (Prasad et.al.). He envisioned organisations that would be administered impartially and objectively. Weberian bureaucracy in its ideal form comprises of six aspects (Hall, 1963)

1. A division of work based on functional specialisation
2. A well-defined power hierarchy
3. A set of regulations governing the legal obligations and responsibilities of positional holders
4. A set of processes for tackling problems in work.
5. Impersonal Interpersonal connections
6. Promotion and employment selection based on technical competency

According to Weber, the presence of trained professional officials, a hierarchical structure, and explicit, rule-based descriptions of roles and processes resulted in accuracy, efficiency, transparency, stability, and cost reduction (Rainey, 2009).

The legacy of Weber's philosophy has an interesting backstory. A bibliography of the diverse and sometimes disputed literature expounding, evaluating, interpreting, and critiquing Weber's work would fill a vast volume. There are several approaches to understanding Weberian Thematic and Topics and Problems. One promising general explanation may be found in the concept of a different Weberian "paradigm" for inquiry, as advocated by M. Rainer Lepsius, among others (Lepsius, 2003).

There is a second, alternative method to addressing issues, one that invites reasoning not really about data analysis but about labelling the issue areas, questions, and ideas discovered in the work itself, giving a type of mapping of the domain of Weberian inquiry. Weber himself offered the most crucial guideposts in his mature writings. The categories proposed in the "Intermediate Reflection" or "Zwischenbetrachtung," a well-known piece found at the conclusion of the first book of the Collected Essays on the Sociology of Religion, are one notable explication (Hanke et al., 2019).

Criticisms about Weber's bureaucracy theory

According to Wren and Bedeian (2009), Weber's bureaucracy theory offers advantages, including:

- Labour division through specialisation
- A clear chain of command is provided by managerial hierarchies.
- Formal Recruitment, in which workers are employed and promoted based on their ability and skill.
- Career Orientation to guarantee that allocated responsibilities are completed without consideration for external demands, as well as to maintain continuity of operations throughout election cycles
- Formal Procedures and Other Measures to Avoid Interaction with Identities and Interests

However, there has been a never-ending tide of criticism of the underlying assumptions and notions of bureaucrat theory. In today's organisational environment, the term "bureaucracy" has a negative connotation and is associated with an organisation that has a multitude of rules and regulations (Downs, 1964). Max Weber attempted to automate human beings in companies by modeling them after machines and their parts (Downs, 1964).

Comparing Weber and Taylor

What contribution do bureaucratic and administrative management play in complementing scientific management?

Max Weber (1864–1920) contributed to Taylor's four principles of scientific management framework in diverse ways. Weber's contribution to management is the invention and comprehension of the legal rationalism leadership paradigm, which emphasises the concept that leaders should make judgments based on law, custom, and rule (Merton, 1940).

However, Taylor concentrated on frontline managers or those who deal with employees. It has been recognised that all the classical theorists had diverse ideas on management and emphasised the necessity for logical, rational structures to coordinate and regulate various sorts of organisations (Pryor and Guthrie, 2010).

1.3. Michael Porter: Competitive Value-based Framework (CVF)

Michael E. Porter is a Harvard Business School C. Roland Christensen Professor of Business Administration and one of the best writers on competitive strategy.

Professor Porter was named to President Reagan's Commission on Industrial Competitiveness in 1983, the effort that sparked the American competitiveness debate (Porter, 1990).

He has made a significant contribution in the business world and has received various awards, including Advisor to Countries and governments, Seven-time winner of the McKinsey Award for the finest Harvard Business Review article of the year, and the world's Top Ten Management Thinkers by Thinkers50 every year since 2001 (HBS, 2021).

His career started in 1969 when he gained a B.S.E. at Princeton University, with excellent honours in aeronautical and mechanical engineering, followed by an MBA at

Harvard Business School in 1971 and a Ph.D. in economics in the same University in 1973 (HBS, 2021).

He has created several frameworks that have expanded his research such as Competitive Value-based healthcare, which is the focus of this part.

Michael Porter has written nineteen books and over 130 articles (HBS, 2021), among the most cited includes Competitive Strategy (1980), Competitive Advantage (1985), and What is Strategy (1996), with the most referred in this work, which is Redefining Health Care (2006).

Competitive Value-based Framework in Healthcare

Porter, a Harvard Business School professor of competitive strategy, established the concept of Value-Based Competition in Health Care (VBHC) in 2006 (Groenewoud et al., 2019). This Value-Based Health Care is a paradigm for reforming health care systems throughout the world based on his research, with the overall objective of value for patients. Value-based healthcare is an attempt to guarantee that limited resources are used in the most beneficial way for patients. (Gentry and Badrinath, 2017). These ideas, derived from experience in a variety of other industries and verified by a vast body of health care research, outline how competition in health care should be structured. It is sometimes claimed that health care is unique and that market principles do not apply.

The current zero-sum competition in health care is damaging, but the main distinction in health care is that the strength of market principles is more, not less, than in most other industries. Better health is fundamentally less expensive. Because of the chances for value-based competition to generate treatment that is both higher quality and less expensive, the market in health care has even more promise if the form of competition is realigned (Porter and Teisberg, 2006).

This framework of Competitive Value-based Healthcare is based on eight principles that are demonstrated in the following:

VBHC argues for a more cohesive healthcare system comprised of six interrelated components:

- “1. Organise care into integrated practice units.
2. Measure outcomes and costs for each patient.
3. Reimburse for full care cycles (from onset to end-stage).
4. Integrate care across different facilities.
5. Expand services with the best outcomes across geography; and
6. Develop enabling information technology platforms”

According to this theory, for the healthcare sector to achieve the required competition, it is important to embrace all the principles.

Criticism on Value-based Health Care

Value-based healthcare (VBHC), developed by Porter and Teisberg (2006), is the most recent management paradigm to gain attention. It's been said that it is the plan that will solve healthcare issues. However, rather than spreading the framework, the newest management idea, value-based healthcare (VBHC), is diluting. Because the VBHC idea is not founded on empirical data, it lacks a rigour and evidence basis that is normally anticipated in medicine (Fredriksson J.J. et al., 2015).

Another critique states that the VBHC's fairly restrictive definition of value overlooks patients' personal and contextual values of life, and it excludes the inherent worth of the caring act. Furthermore, VBHC's emphasis on target and performance management (the business of result evaluation), may jeopardise the ideals of 'confidence in experts' solidarity.' Therefore, it needs further critical research (Groenewoud et al., 2019).

Another criticism comes from researchers, who think that VBHC is primarily a 'management notion' (Fredriksson et al., 2015) or a management innovative thinking (Colldén and Hellström, 2018); others think that it is first a business strategy (Groenewoud et al., 2019); there are some other authors who see it as a 'governance regime' (Bonde et al., (2018). Lastly, others think that the result is less relevant in the case of chronic diseases (Ebbevi, 2017).

Part 2 Applying management approaches to National Health Service UK and Congolese Health care system

2.1. The National Health Service (NHS) UK

Background

The National Health Service (NHS) was established on July 5, 1948 (Kennedy, 1955) by Aneurin Bevan, a coal miner's son (Gingihy, 2015). The service focuses on general practice and primary health care; the practitioner ought to be available, visit sick people or at the clinic, provide therapy within his scope of practice, and seek specialist assistance when necessary. He would monitor childbirths and give advice on how to avoid diseases and improve the patients' quality of life. He should be involved in prenatal care, child development, physical education, contagious disease, and occupational medicine. Nursing should be offered, depending on consultation with the doctor, at the primary health care centres Dawson envisions (Rivett, 2022).

The main mission of the National Health Service (NHS) UK is to "collaborate as a new single system to better promote the service in delivering enhanced treatment patients" (NHS, 2022). The NHS specialises in different services including surgery on a patient, cancer, mental well-being, ambulance personnel, urgent and emergency medical attention (NHS, 2022).

Effectiveness of management approaches in NHS

Taylorism in National Health Service UK (NHS UK)

Over time, the National Health Hospital Service has undergone considerable organisational changes. The "new" public sector management (NPM) has been tasked with changing the hospital culture and making service delivery more efficient. Nurses, as the largest professional group within the National Health Service (NHS), have attracted considerable management attention. Taylorian approaches are advocated to place the division of labour of healthcare workers firmly in the hands of hospital administration (Bolton, 2004).

The job of nurses requires them to multitask. Examining the environment of patient care is essential for understanding multitasking. Multitasking measurement allows

healthcare businesses to increase efficiency, quality and safety, workflow, and clinician job satisfaction (Bastian et al, 2016).

The workload of the nurses includes direct care, indirect care, patient documentation, unit-related tasks, personal time, and non-nursing duties; they might all be classified as uses of working time (Lavander et al., 2016)

However, some criticism on changes in nursing employment has echoed broader arguments about changes in workplace control. According to labour process theory, scholars have seen routinisation, deskilling, work intensification, and the imposition of Taylorist regulations over nurses (Cooke, 2006).

Bureaucracy in the NHS

According to Tory peer Stuart Rose's long-awaited study on leadership, the NHS is drowned in bureaucracy; it is beset by difficulties that successive administrations have overlooked and has a chronic dearth of effective leaders to apply the common sense needed to cure it all (Rose, 2015).

The rate of change is accelerating in the NHS; however, it presents considerable and frequently competing demands on all levels of its leadership and administration and its bureaucratic and regulatory load becomes untenable, studies reveal (Torjesen, 2015).

Rose emphasises three areas of special concern: a lack of a shared vision and ethics; insufficient management and leadership capabilities; and the necessity for a "good general direction of management careers" in the medical, administrative, and nursing professions (Rose, 2015).

There are two factors why the bureaucracy is holding the NHS back: first, the NHS is too vertically organised, and second, there are too many regulatory organisations making far too many reporting requirements (Rose, 2015).

Competitive Value-based Framework in the NHS

Since the beginnings of healthcare, values have been prevalent. Value-based healthcare prioritises what patients value in healthcare. It helps to guarantee that individuals receive treatment that will give them with the results they value and that limited resources are directed toward high-value initiatives. (Gentry and Badrinath, 2017). The Value-Based Health Care (VBHC) movement encourages NHS Wales to focus on meeting their patients' goals and managing their expectations throughout the care or treatment (NHS, 2022).

Strategic and Competitive Direction of the NHS UK

One of the strategic orientations of a company is to get a competitive edge. In the case of the NHS, only the private healthcare sector is considered to be the true competitor to the NHS, but this competition is relatively in modest scale in the private health industry in the UK; those organisations do not provide true rivalry for the NHS. (Richardson, 2003). Even though the external competition is on a modest scale, there is still competition with the private sector, due to the fact that organisations throughout the NHS are fighting for support and money from the government's limited resources.

In competing with other suppliers, the capacity to deliver superior quality, value-for-money services can generate a competitive edge. Most companies are looking forward to pursuing effective positioning against their rivals (Johnson and Scholes 1999). The NHS strategy and competitive direction were formulated in performance evaluation for the years to come; and for 2022, the company has detailed its plan and is working to meet the objectives; the following figure is showing more accurately what and how they are trying to achieve this:



Figure 1: NHS' strategy at a glance (NHS resolutions, 2022)

Business Model of the NHS

The great question is: how does the NHS create value for the patient? The main purpose of the NHS is to provide better care to patients. When it was created in 1948, its founders had no difficulty with the word; it was to be exactly what the name implied: a National Health Service. Nobody ever mentioned calling it a company. By function, the NHS is a service; it is not a company in the literal sense of the term. A business is defined as a trading activity or a promotional organisation; and commerce is defined as the action of purchasing or selling a range of products to earn a profit. The NHS's primary vision is not to acquire or sell; it surely does not want to profit from its actions; that is not its goal (NHS England, 2015).

Although the NHS is not a business, more individuals are becoming aware of the NHS's marketisation and privatisation and are ready to resist entrenched interests in order to protect it. The NHS, which has long been the envy of the world, is being dismantled in order to create a national insurance system modelled after the US

model. Following the Health and Social Care Act of 2012 and in preparation for the upcoming Transatlantic Trade and Investment Partnership (TTIP EU-US trade pact), multinational corporations are opening the NHS oyster. This is about far more than the NHS; it is about turbo-charged neoliberalism—the ideological system that includes privatisation, deregulation, and state shrinkage (Gingihy, 2015).

Tim Evans, who negotiated the concordat on behalf of the commercial sector, anticipated a time when the NHS would merely be a kitemark attached to the institutions and activities of a totally private providers' system. The cost of hospitals alone is expected to exceed £79 billion. This is seven times the initial capital cost (i.e. true worth) of £11.4 billion. Is it any surprise, then, that more than half of NHS hospitals are in deficit and at risk of going bankrupt? It is predicted that up to three-quarters of all hospitals were in deficit in 2015 (Gingihy, 2015).

From all the previous paragraphs, it is clear that even though the NHS is not a business, however, it is trying to protect itself against all the expenses by introducing Public-Private Partnerships and privatising public utilities, based and premised on the assumption that the private sector would increase choice and competition while decreasing costs.

Types of the healthcare system.

Healthcare system type	Underlying values and principles	Financing	Service Provision	Regulation	Examples
National Health Service	Equity: equal access to services for everyone	Public: direct and indirect taxes	Public Providers	State Hierarchical: comprehensive planning and tight control by the state	UK, Sweden
Social Insurance System	Solidarity: equal access to services for all members of insurance funds	Societal: social insurance contribution according to income	Societal: private non-profit providers	Collective bargaining of corporatist actors, legal framework, and some state control	Germany, Canada
Private Healthcare System	Principle of equivalence: services according to pay	Private: Private insurance premium according to risk	Private for-profit providers	Competition of private actors; limited state regulation	United States

Figure 2: Healthcare system types (BÖHM et al., 2013)

Organisational culture

Organisational culture has a tremendous impact on patient safety in the implementation of the healthcare service. It is fundamental that the type of an organization's leadership shapes its culture. The leadership must take the lead in fostering the necessary cultural transformation throughout the healthcare system (Francis, 2013: 64).

The Francis Report emphasises the importance of organisations developing and sustaining the correct culture in order to provide high-quality treatment that is responsive to patients' needs and preferences. A positive culture is defined by Francis as "a common positive safety culture" (Francis, 2013: 1357).

Several programs all across the NHS, including the 'Sign up to safety' and 'Freedom to speak up' campaigns, as well as CQC inspections, have led to the promotion of transparency, learning, and strong institutional humility as the foundation of safe treatment (DH, 2015).

In most companies, culture is rarely homogeneous, and subcultures do exist (Davies and Mannion, 2013). Morgan and Ogbonna (2008) discovered that NHS employees across diverse settings and disciplines have just two common viewpoints: the need for treatment to be based on individual need rather than finance, and disdain of repeated meddling by successive UK governments in healthcare service. In general, the concept of shared values is overstated and oversimplified (Morgan and Ogbonna, 2008).

Over time, the NHS shifted from a large clan culture to a more 'blended' culture, incorporating more elements of developmental, hierarchical, and rational cultures (Jacobs et al, 2013). This raises the question of whether the idea of shared organisational culture must include basic features corresponding to the code of practice for health professionals in general, while also reflecting subcultural traits and dynamics.

Approach to people

Change is constant, static techniques like rules and procedures have little impact on priorities, and how people interact inside and between departments is a measure of the organisation's capacity to prevent failure (Carillo, 2012). This is mirrored in four basic attributes that may unleash the potential of an organisation: confidence, curiosity, connectivity, and compassion (Hadridge and Pow, 2008).

The work of the NHS Commissioning Board's Chief Nursing Officer (CNO) for England in shaping the 6Cs in health care—care, compassion, competence, communication, courage, and commitment—reflects aspects that are equally important in the vision and strategy for leadership in nursing, midwifery, and care staff (Cummings, 2012). Health professionals must set aside time to reflect on what they do and how they do it, and, if required, adjust the way they do it in order to get better results. The incorporation of the 6Cs into health care is critical to this process. This article looks at some of the efforts that are available to help with this.

The NHS Leadership Academy has created a Healthcare Leadership Model with nine dimensions that are endorsed by suitable resources and support, inspiring professionals to develop their leadership skills while also considering the implications for the safety and quality of the services they provide (NHS Leadership Academy, 2013).

2.2. Congolese Public Healthcare system

Country background

The Democratic Republic of the Congo (DRC) is Sub-Saharan Africa's biggest country, with a surface area comparable to that of Western Europe (SSA). The Democratic Republic of the Congo (DRC) is loaded with outstanding natural resources, including minerals such as cobalt and copper, hydroelectric potential, major arable land, great biodiversity, and the world's second-biggest rainforest. The Democratic Republic of the Congo boasts the world's third-largest impoverished population. Poverty is prevalent and persistent in the Democratic Republic of the Congo, and it is worsening as a result of COVID-19's effects. In 2018, it was projected that 73% of Congolese people, or 60 million people, lived on less than \$1.90 a day (the international poverty rate). As a result, DRC is home to one in every six individuals living in extreme poverty in Sub-Saharan Africa (The World Bank, 2021).

Health system organisation

The health-care system is divided into three tiers (Ministère de la Santé Publique 2010): central, intermediate or provincial, and 'periferique.' The Minister's Office, the General Secretariat, which consists of 13 departments and 52 programmes, and the national hospitals comprise the central level; this level is where policy is developed and converted into legislation and regulation, as well as where the intermediary level is monitored and aided. The intermediate level is made up of 11 provincial inspections, 65 health districts, and provincial hospitals. This level is in charge of translating legislation into practice and implementing them at the lower level. The lowest level deals with primary health care and has 515 healthcare areas, with 393 general hospitals, and 8504 planned spaces of healthcare, 8266 of which include a health centre. Each healthcare area serves around 110,000 people (Waldman 2006, 6).

Health centres are intended to provide a minimum health package to the community in their individual spaces of healthcare, whilst general hospitals are expected to provide a package of supplementary services in addition to supporting the services provided by the spaces of healthcare. Healthcare in the Democratic Republic of the Congo is mostly fee-based, dating back to the 1980s' Structural Adjustment phase), however, there have been some attempts with free treatment, and humanitarian organisations often provide treatment for free (Waldman 2006; Bailey et al. 2011). The health economy is dominated by a do-it-yourself mindset, *debrouillez-vous*: if people are unable to pay, they must seek alternate forms of care.

Many people say that being unable to pay is a huge obstacle and that they prefer traditional types of healthcare instead (MSF-Eastern DRC 2005). According to certain surveys, 50–60% of the unwell do not seek medical attention (World Bank 2005b).

Alternatively, the costs may necessitate patients borrowing money, selling possessions, and employing different ways to obtain the necessary finances — including livelihood-destructive strategies that push them farther into poverty. There are official and informal employees (*mechanisées* et *non-mechanisées*) at public health facilities; the formally employed are paid, but not enough to keep them over the poverty line. As a result, both official and informal workers must get (part of) their income from the people they serve, which is accomplished through the user fee system. Part of the money earned by municipal and provincial health institutions in this manner is moved upwards via the administrative system (Weijs et al., 2012).

The administrative side of the health industry faces the same unpaid tax as the healthcare professionals, thus auditors, managers, health area, municipal, and even national employees augment their budgets and salaries through health zone user fees. The healthcare industry, like the school sector, has therefore become an alternative taxation system (Ministère de la Santé Publique 2016). There are rural-urban differences: there is a concentration of doctors and nurses, as well as healthcare centers, in urban areas; and these facilities are also more available, in comparison to rural locations, where transport options are restricted, both in terms of accessibility and road condition, as well as security issues.

Public Health sector Business Model

The DRC's health system continues to be supported by significant international donor financing from multilateral, bilateral, and non-governmental organisations (NGOs). This accounts for around 40% of overall healthcare funding (Institute for Health Metrics, 2020). In 2018, DRC received a total of USD 2 509.8 million. 23 % of this was classified as supporting 'health and population' efforts (Organisation for Economic Cooperation and Development, 2018).

The health system in the Democratic Republic of the Congo is largely financed by three major sources: the government budget, donor contributions, and patient payments for treatment services (up to 70 percent of operating costs) (Orbie et al., 2018).

Top Ten Donors of Gross ODA for Democratic Republic of the Congo, 2018-2019 average, USD million

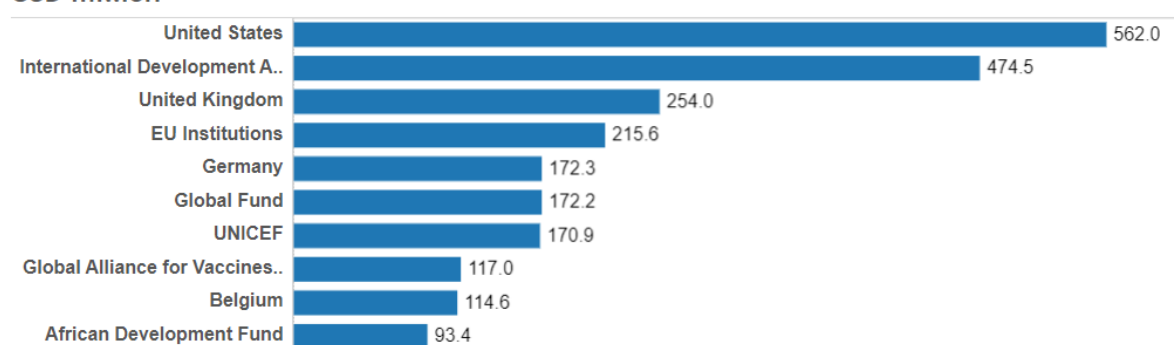


Figure 3: OECD 2019

Effectiveness of Bureaucracy and Division of the task in Congolese National Healthcare sector

The DRC's healthcare system is organised in a three-tiered pyramid model: central, provincial, and peripheral. The following are the duties and responsibilities at these various levels:

- **Central** – also known as national. The Ministry of Health has authority for the activities and responsibilities at the Central level. This level is largely in charge of general control and direction of the health system through the creation of national policies, initiatives, and directives. Other tasks include raising finances through national and international resources and monitoring healthcare statistics. These responsibilities are split between two important directorates: the General Secretariat Office and the General Health Inspectorate (PNDS, 2018).

At this level, the following types of health facilities available are University hospitals and The National hospital (National hospital Kinshasa)

- **Intermediate** – also known as Provincial. The Provincial Health Inspectorate is in charge of the Provincial Hospital and is led by the Provincial Health Minister, who is also in charge of the Provincial Health Office. 80F\82 Each province has one provincial hospital. The Provincial Health Office is a decentralised institution in charge of technical training and contextualization of national standards for provincial health facilities, as well as health facility monitoring. One essential goal is to assist with the implementation of guidelines and initiatives at the health facility level. The Provincial Health Inspectorate is a decentralised body that is largely in charge of quality control in health facilities through audits and inspection. One important goal is to record and track the distribution of medicinal treatments and specialised equipment (PNLT, 2017).

- **Peripheral** – also known as operational. This level is split into 516 health zones that serve populations ranging from 100,000 to 150,000 people. There are 87 health zones, which are further split into 8,504 health areas. Each health zone is maintained and controlled by the Health Zone Team and a Chief Medical Officer, according to the PNDS. The majority of health services are supplied to communities at this level. Health posts are modest institutions in rural areas that provide extremely minimal services.

Health centres — basic facilities that provide a more extensive range of activities. 5 000 to 10 000 community people are served by 89 health centres. According to the PNDS, there are 8,266 health centres located in 8 504 health regions (PNDS, 2018).

A network of public and private organisations and structures manages health care facilities. Private facilities are classified as for-profit or not-for-profit, with the latter category including institutions run by NGOs and faith-based organisations. Due to the lack of national health information systems, there are currently no national records on registered health facilities. The proportional role of the public and private sectors in health facility management varies depending on the kind of institution (EPSS, 2019).

Congolese health system-specific inefficiencies

Inefficiencies in the DRC health system are mostly the result of the state and economy collapsing after three decades of non-governance. Inefficiencies took various forms, including disproportionate management costs, waste, duplication, and ineffectiveness as a result of fragmented services and programmes, organisational and managerial inefficiencies, unproductive workforce deployment, and duplication of supply chains for medicines and health products (Kalambayi and Lerberghe, 2015).

Strategic and Competitive Direction of the Congolese Healthcare system

The strategy of the healthcare system is summarised in the following orientations:

- (i) pursue the development of Health Zones in order to guarantee better availability of quality health services and care and their accessibility as well as optimal use by the population within the framework of the threefold dimension of universal health coverage.
- (ii) strengthen support actions to extend the coverage of quality services and care by working on the pillars of the Health System.
- (iii) continue to improve governance and management of the health sector.

The development of the 2016-2020 PNDS was inspired by national strategic documents, in particular the 2012-2017 Government Action Program, the results of the National Prospective Study (ENP), and the 2017 National Strategic Development Plan, which guide the overall implementation of the country towards the Sustainable Development Goals, including Goal 3, related to health.

The development of the 2016-2020 PNDS involved all levels of the Health System. The Provincial Health Divisions (DPS) have been provided with updated strategic planning tools and guidelines for the development of Health Development Plans for their Health Zones and the consolidation of PDSZs into Provincial Health Development Plans (PPDS) to identify the provincial priorities that fuelled the 2016-2020 PNDS (PNDS 2016).

Comparison of the NHS UK and Congolese public health system

NHS UK	DRC public health system
<u>Management approaches</u> • The NHS is handicapped by bureaucracy (Rose, 2015). • Focusing on the patients' value (NHS, 2022): Equal access to everyone • Division of tasks increase efficiency (Bastian et al, 2016)	<u>Management approaches</u> • Patients pay for their treatment fees: “do-it-yourself mindset” debrouillez-vous. (MSF-Eastern DRC 2005). • Inefficiency of fragmented services (Kalambayi and Lerberghe, 2015).
<u>Strategy</u> Deliver competence to the NHS in order to properly address problems, promote learning for improvement, and save resources for care delivery. (NHS,2022)	<u>Strategy</u> (i) pursue the development of Health Zones (ii) strengthen support actions to extend the coverage of quality services and care by working on the pillars of the Health System. (iii) continue to improve governance and management of the health sector. (PNDS,2016)
<u>Business Model</u> • The NHS is not a business (NHS England, 2015) • Financing: direct and indirect taxes	<u>Business Model</u> • The DRC's health system is supported by donors, state budgets, and patients (Orbie et al., 2018).

Table 2: Comparing NHS and DRC Public health Sector

Part 3: The impact of technology in the healthcare industry

3.1. Definition, Approaches, and paradigms

Technology is a set of methods, processes, and equipment that are the outcome of scientific knowledge being applied to practical ends (Collins 2022). Health personnel in industrialised nations are increasingly embracing contemporary technology to offer care, which has resulted in higher productivity (Lavander et al 2016).

There are different philosophical thoughts and arguments that were developed around the use of technology, with differing views on whether technology benefits or worsens human circumstances.

Among the most referred in healthcare, there are neo-Luddism, anarcho-primitivism, and other reactionary groups. They argue that technology damages the environment and alienates people. However, Proponents of ideologies such as transhumanism and techno-progressivism see ongoing technological progress as advantageous to society and individual conditions. Transhumanism supports the advancement of biotechnological augmentation in order to overcome biologically based human limitations (Tennison, 2010).

Transhumanist ideas investigate the possible advantages and disadvantages of new technologies that have the potential to overcome basic human limits, as well as the ethics of employing such technology (Taebnia and Taqavi, 2021).

Some transhumanists predict that humans will someday be able to convert themselves into creatures with skills so vastly different from their current state that they will be labeled as posthuman beings. Some transhumanists predict that humans will someday be able to convert themselves into creatures with skills so vastly different from their current state that they will be labeled as posthuman beings (Tennison, 2012).

Neo-Luddism, often known as new Luddism, is an ideology that opposes many kinds of contemporary technology. It has been agreed that Luddism emerged at the turn of the 18th and 19th centuries as a social movement and a set of distinct anti-modernization ideas. During this period, and for the first time on such a large scale, English craftsmen had lost their job as a result of the industrial revolution and the introduction of machines into companies. Consequently, in place of expert artisans, poorly trained people were hired, who were able to manage weaving and knitting machines after a brief training period (Routledge, 2006).

According to legend, the name of the movement originates from the labourer Ned Ludd, who smashed two knitting frames in 1779 in a fit of rage. This act of destruction has come to represent opposition to the total mechanisation of industry and the replacement of workers with sophisticated technological gear. Over time, the Luddites became so disruptive to the rest of the community that the British army was called in to put them down. The Luddite riots peaked in 1811-1813 (Nottingham, Yorkshire, Lancashire, Derbyshire, and Leicestershire) (Roberts, 2017), when the movement was already formed and capable of imposing pre-democratic pressure (collective bargaining by riot).

It was met with waves of harsh government persecution, including exile and death. The crisis in the British economy following the Napoleonic Wars triggered more waves of rioting in the years 1816-20, and the final dramatic actions of the Luddites took place in the 1830s. Following that, the movement died. However, as we will see, it later reappeared, aided by the internet, which has provided a platform for new Luddite movements (Maciej and Michał, 2017).

Techno-progressivism is a position of active support for the confluence of technical and social transformation. Techno-progressives claim that technology advancements may be profoundly liberating and emancipatory provided they are governed by genuine democratic and responsible institutions to guarantee that the costs, risks, and rewards are all equitably shared by the actual players in such advancements (Leijten, 2019).

3.2. Nursing informatics

Nurses constitute the majority of the workers in the health care sector; thus the creative use of electronic records and computers improved the comfort of work, encouraged diverse activities, and decreased work hours.

The discipline of health informatics is described as the capture, storage, and utilisation of information in a certain environment or area, in this instance health care. As information and technology have fused to become crucial components of health care, the distinct, hybrid function of informatics in nursing has emerged. Nursing has quickly shifted to crucial roles in changing health care environments as they make appropriate use of health information and technology systems. The informatics nurse is a member of the providers of care, the development of fear, competency, and experience in the use of information technology (Honey et al. 2020).

There are several advantages of digitalisation of health records:

- Improved Patient Care: Electronic health records (EHR) inform treating doctors and improve their ability to address allergies or intolerances to specific medications.
- Better Public Health: EHRs supply clinical researchers with incredibly useful data, which advances the medical understanding and the evolution of current medicine for common health conditions.
- Work Flow Convenience: Medical billers and coders face significant challenges as a result of EHRs. The emergence of EHRs has made their lives considerably simpler.
- Reduced Healthcare Costs: The transition from paper-based manual paperwork to paperless electronic documentation resulted in additional monetary benefits for the hospital. The hospital's economics has significantly improved (Elizabeth, 2019; Carberry et al., 2016).

3.3. APPLICATION OF NURSING INFORMATICS



Figure 4: APPLICATION OF NURSING INFORMATICS (Elizabeth, 2019)

This system helps nurses to organise and transmit data, information, knowledge, and wisdom during their practice. Informatics engaged in administration include the scheduling of nursing staff duty, the transmission of patient information between departments, the promotion of record-keeping, and the storage of data, all of which reduce the number of nursing hours spent on non-nursing tasks. Nursing administration benefits from computers to manage staff records, regulate budgets, conduct nursing audits, and obtain discharge feedback from patients. All of this resulted in a notable cash saving (Elizabeth, 2019).

3.4. Fourth Industrial Revolution in healthcare sectors

The technology has transformed the healthcare industry. The utilisation of computing systems and software has performed a lot of changes in digitalisation in the sector (Ahuja et al., 2020). For example, during the Covid-19, drones and robots were used to carry essential care to hospitals as well as medicine and food to sick people; with the assistance of connected software, professionals were able to analyse and manage health data (Signé et al., 2020). Other devices used include “smart watches, smart belts, wearable blood glucose monitors, and smart medications” (Wang et al. 2021).

The global healthcare services industry is expanding into new industries; worldwide standardisation of contactless healthcare services is underway; however, some researchers criticise that there are difficulties in combining private and public management systems, with the risk of hacking biological data. Future research should aim to improve privacy and data protection, as well as the sustainability and control of digitalization and the uniformity of contactless services. Regarding the rate of digitalisation, the protection of personal information should become the main concern, necessitating broad data protection laws to control tech corporations that promote the use of these technology innovations throughout various economic sectors (Agbehadji et al. 2021)

3.5. Personal choice and justifications for Technological Progress

My personal point of view is directed toward a techno-optimist and techno-progressivist attitude toward technology. Therefore, I encourage the use of technology because it enhances the quality of life, and I believe that discouraging the use of technology can limit life experience. These technologies have altered lives, particularly in the health care sector, by managing health information on symptoms, prevention, and even treatment of the COVID-19 pandemic (Agbehadji et al. 2021). In the Democratic Republic of the Congo with 100 million people, the immunisation programme against Covid-19 has been delayed due to a lack of trusting the emergence of new technology (Kavanagh and Sguazzin, 2021); whereas in the UK where people are keen on technology, the immunisation programme has speed-up and tend to bring everything to normal (Office for National Statistics, 2021)

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