

Organisational Structure and Strategic Business Success in the Petroleum Industry in Uganda

Nicholas Disney Ogola^{1*}, S. Rheeta Marjery², Vincent Bagire³

¹Team Leader, Primehouse Consulting Group, Kampala, Uganda

²Principal, Sree Pashmi Institute of Management, India

³School of Graduate Studies, Makerere University Business School, Kampala, Uganda

*Corresponding Author: ogolanicholas@gmail.com

Abstract

This paper explores the relationship between organisational structure (ORG) and strategic business success (SBS) in the petroleum industry in Uganda. ORG was measured using span of control (SPOC), coordination of functional units (CORD), centralisation (CENT) and decentralisation (DECE). The study premised on institutional theory. The population was 347 licensed petroleum companies in Uganda and a sample of 186 was distributed and 174 used for analysis. The study used a survey research design. Regression and correlation were used to do analysis. The study used a self-administered questionnaire and semi-structure key informant interviews. Findings indicate that ORG has positive and significant relationship with SBS, although DECE and CORD make bigger contributions to ORG and ultimately SBS, CENT to a less extent. It is recommended that to generate more value, organisations should adopt CORD and DECE. It is concluded that petroleum companies should strengthen and manipulate DECE and CORD to meet the growing need of the petroleum industry. The study concluded that ORG does predict changes in SBS and is an important predictor of SBS.

Keywords: Organisational Structure, institutional theory, Strategic Business Success, Petroleum industry.

Introduction

Organisations design structure that they believe shall deliver value to their shareholders and serve customers in the most efficient manner as compared to competition. To a large extent, ORG may depend on the type of industry and market. There are four models of ORG found in companies operating today [1]. According to the author, these models include hierarchy (1946-1964): traditional top-down model where orders filter downwards from a single figurehead to departments via a management layer without cross-team collaboration; horizontal (1965-1976), which began to flatten the structure, spreading power at the top and introducing internal communications and teams began to collaborate. Flat (1977-1992) saw generation with no need for a hierarchy because each staff member was fundamental to the proper running of the business and the focus was on getting things done. The last model is the holacracy (1993 -...)

which may hold the key to the future of organisational structure.

In the recent past, two forces played significant roles in shaping organisational structures in an organisation - the rise of digital technology and the free movement of people and ideas. These have shaped the way people work and how organisations respond to changes in environment. Changes in technology especially the ubiquity of the internet have meant that information is ably shared globally in an instant. However, in spite of technological improvements in transport, landlocked developing countries often lag behind their maritime neighbours in overall development and external trade [2]. This inevitably affects companies in these countries and Uganda is no exception.

Generally, the global business environment experiences change which directly or indirectly affect businesses in what is described as VUCA (volatile, unstable, complex and ambiguous) environment [3]. The authors offer critical advice to business managers on how to identify

each element of VUCA and offer suggested approach to adopt to manage. VUCA is a common phenomenon in the petroleum industry that experiences tremendous change and activities. For example, although the basic supply and demand pressures determine the price of oil but, international politics play a large part [4]. Organisations therefore need to design and operate a structure capable of responding to VUCA and other changes in operating environment.

ORG provides an enabling system that allows company management to intrinsically generate a design and structure that supports organisational operations. A flexible and fluid ORG creates a platform and system that allows prompt decision making, timely response and attention to customer demands as well as effective response to market dynamics. Some scholars say ORG can be described as the set of ways in which organisational work is divided into separate tasks, delegated and coordinated towards the achievement of corporate goals [5].

Scholars including [6] and [7] studied the alignment and implications of organisational structure in Brazil (internationalised public company) and North American, European and Japanese multinationals respectively. The results indicated that the public company's ORG provides a structural framework for R&D management, promoting knowledge and infrastructure sharing. The internationalisation, allows researchers to interact with research centres of excellence abroad. Internationalisation for Multinational Enterprises (MNEs) allows innovative performance which is enhanced by the lateral and hierarchical exchange of knowledge but suppressed by bureaucratic coordination and control mechanisms. ORG uses a variety of structures and elements to ensure a fluid and flexible organisation able to deal with shifts in direction or impact.

The petroleum industry is fraught with uncertainty occasioned by turbulence and unpredictable changes in environment, political interference and market changes, which require managers to use their managerial capabilities to build, integrate, and reconfigure organisational resources and competences [8]. The interplay of factors in the industry provides avenues that managers exploit to the benefit of their

respective companies and these are anchored on capabilities with which managers create, extend, or modify the ways a firm makes a living, through an impact on factors both within and outside of the organisation [9]. Due to the level of competitiveness, sheer amount of capital investment, environmental concerns, strict regulatory and statutory control, and an industry where government receives and usually plan to receive high revenues, the petroleum industry requires a high degree of organisational flexibility in order to success [10].

Uganda is a net importer of petroleum products with 92% through the Kenya infrastructure while 8% is supplied through Dar es Salaam (MEMD, 2019). To be competitive, the petroleum industry needs an ORG that guides and enables companies to appropriately respond to changing competitive dynamics. Companies that have reliably flexible system can sustain market presence and only those that are more resilient both internally and externally would sustain market presence. Recently, companies have experienced challenges in their structure, and this has been worsened by the impact of COVID-19 [12].

In Uganda, whereas companies attempt to design ORG to meet their strategic objectives; and whereas the petroleum industry is liberalised with free market economy that determines entry and exit, there are some challenges the petroleum industry faced in the recent past. These challenges therefore, compel one to ask whether the issue in the petroleum industry is inappropriate or inflexible ORG to aid organisational growth, development and attainment of strategic objectives. The emergence of COVID-19 pandemic with social distancing, stay at home and avoid crowded public places has exacerbated this challenge as an organisation must change its service system by implementing digital innovation and dynamic organisation in its service and organisational structure [12].

Conceptual Framework

This study was guided by the conceptual framework in Figure 1. Independent variable was ORG with constructs that included SPOC, CORD, CENT and DECE with SBS as the dependent variable.

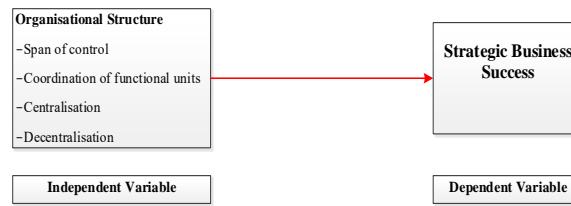


Figure 1. Conceptual Model

Source: Researcher, 2021

From the conceptual framework, it is postulated that ORG has a positive and significant relationship with SBS. This relationship plotted directly from ORG to SBS.

The remaining parts of this study are arranged as follows. Section two of the study presents literature review; section three presents the methodology whereas section four presents data and results as well as a discussion of the results. Section five presents conclusion and possible policy recommendations.

Theoretical Review

Institutional Theory of the Firm

This study was guided by the institutional theory which introduced the concept of open systems in the study of organisations [13]. It came to recognise the significant organisational effects that are associated with the increase of cultural and social forces: the institutional environment [13]. Institutional theory has gone through various transformations in terms of its episteme, thus providing a variety of different looks at social phenomena.

The institutional theory of organisations puts institutions at the core of the analysis of organisations' design and conduct. Institutional theory seeks to explain the processes and reasons for organisational behaviour as well as the effect of organisational behaviour patterns within a broader, interorganisational context [14]. Institutional theory explains innovation based on cognitive institutions that seek legitimacy so that they'll be accepted. This legitimacy constitutes a mechanism that links organisational behaviour with belief systems and public opinion in which change occurs as a response to institutional pressure [15].

According to [16] organisations therefore implement interventions that are viewed as legitimate by institutions within their environment, and adopt certain initiatives in response to coercion or strong pressures to

comply with rules, mandates, and regulations. The authors assert that organisations mimic the behaviours and structures of other successful organisations to withstand competition and align with professional norms.

The institutional theory is critical because it provides a basis for consideration of exercise and use of power within the institutional framework. For example, leaders and managers exercise authority in order for an organisation to undertake R&D such that an organisation can produce new products or services that will give a competitive advantage and first mover advantage over its rivals. Similarly, institutional theory tends to be managerial or applied from an objective perspective of enabling an organisation to design interventions that make a more critical social impact creating an image of corporate and socially responsible organisation. This, therefore, provides the petroleum industry organisations a suitable opportunity to achieve SBS.

Literature Review

Organisational structure (ORG)

ORG is a specific pattern of relationships that managers create in the process of organisational design. According to [17] "an ORG is defined as a system that determines how job tasks are formally divided, grouped and coordinated within an organisation". The ORG is related to institutional governance that according to [18] involves aspects such as advisory councils, technical scientific advice and business organisation (direction, choice of management and organisation chart), in addition to the normative aspects defined by the legal regime and the statute.

[19] refers to ORG as "the formal configuration between individuals and groups regarding the allocation of tasks, responsibilities, and authority within the organisation". ORG has been advocated as one

of the organisational resources that can decisively contribute to the reinforcement of organisation's capacity to innovate [20], [21] suggest that the way in which organisational work is divided, delegated and coordinated affects cooperation and internal communication, impacts free flow of information and exchange of ideas and favours or hinders experimentation, generation and dissemination of new knowledge.

ORG influences resource allocation, favours internal and external communication and strengthens organisational ability to respond to changes in business environment, to learn and innovate [23]. ORG is a mechanism which links and co-ordinates individuals within the framework of their roles, authority and power [25]. ORG represents a useful tool that directs individuals' behaviours through shared values, norms, and goals [26].

ORG can be described as how the job tasks are formally distributed or divided, grouped, and coordinated [27]. And such ORG illustrates a durable configuration and layout of tasks and activities for a foreseeable duration [28]. Essentially, this means, ORG is a methodical arrangement where the organisation is subdivided into identifiable tasks aimed at creating a harmonious relationship within the different organisational units and responsibilities [28]. An ORG is meant to establish a formal arrangement for tasks and reporting relationships that offers control over subordinates and providing motivational system to arouse performance in a bid to support the attainment of organisational goals [28], [29]. ORG comprises of job positions, reporting relationships and accountability mechanism especially process and sub-process deliverables [28, [30].

Because it supports strategy, ORG is designed to provide working arrangement, creates a competence-based environment, motivates and generates employee morale so that coordination with management is attained because it provides a thrust to a sketch of organisational plans that should be pursued [28]. ORG provides a platform for distribution and sharing of power within the organisation and among employees [28], [31]. ORG provides an avenue where people at work are organised and coordinated. It equally affects the nature of the relationships they develop, their feelings about these aspects, the ways in which they carry out

their works, the attributes required of employees that work in particular types of structure and what that means for the management of the employees' performance. Generally, ORG must provide a basis for competent performance, ease of coordination within the organisation, a framework to support strategy to produce positive results [32].

We therefore discuss the following organisational structure dimensions:

Coordination and formalisation (CORD)

Coordination of function units also known as formalisation refers to the extent to which decision-making, working relationships and operational routines are governed by specific standard rules, regulations, policies and procedures [33]. It coordinates and controls work processes and behaviour through codification and documentation, and sets explicit standards for work attitude and outcomes [30], [34].

Formalisation is described as "the amount of written documentation in the organisation" and indicates the extent to which job tasks are defined by formal regulations and procedures [35]. These rules and procedures are written to standardise operations in organisations. Formalisation is meant to measure the extent to which an established organisation uses rules and procedures to prescribe and regulate behaviour [26]. In an organisation with high formalisation, there are explicit rules which are likely to impede the spontaneity and flexibility needed for internal innovation (Chen & Huang, 2007). Staff members organise and manage their own tasks and are responsible for their own output, whereas internal communication and collaboration is facilitated by coordination managers or committees [21].

Centralisation (CENT)

Centralisation means concentration of authority at the top level of the administrative system while decentralisation means dispersal of authority among the lower levels of the administrative system [36]. Approaching from top management perspective, [35], [37] describe centralisation as the concentration of power and decision-making authority at the top levels of an organisation. For control and other reasons, decision making in a centralised system is concentrated at the top level, as opposed to

delegated decision making to the lower levels in decentralised systems [35].

In centralised system, a hierarchy of authority and participation are key [35]. Hierarchy of authority refers to the concentration of decision-making authority in performing tasks and duties [35], [37]. Participation in making decisions refers to the employee participating in decisions in an organisation [35].

Decentralisation (DECE)

Decentralisation refers to the extent to which the right and authority to make decisions and evaluate activities within an organisation is distributed among different organisational levels [23]. It defines whether power and control are shared among various structural components as well as whether all staff members are involved in decision and strategy making, policy shaping and resource allocation.

Decentralisation is found to be related to many work-related attitudes and behaviour [38]. It is where various kinds of people performing diverse jobs in different locations are involved, be it in departments within the organisation or in different geographical areas.

Span of Control (SPOC)

SPOC is typically defined as the number of people who report to a manager or supervisor or the number of workers that a supervisor can effectively manage [39]. SPOC has consistently been associated with the number of people assigned to a manager, not the number of full-time equivalent positions assigned. To measure span of control, the head count is the simplest span of control measure [40]. However, SPOC is more complicated than just an estimation of a manager's number of direct reports [41].

[42] concept analysis of span of management suggested that analysis of SPOC should include: manager capability reporting structure (number of employees per manager), degree of manager and staff interaction, manager role breadth and complexity, the number and size of work groups under a manager's authority, and the availability of other managerial supports (educators, assistant managers, etc.). A high degree of control over work has been associated with decreased manager turnover [43]. Role overload, work control and job satisfaction are important manager job outcomes not previously examined

in studies of frontline manager span of control [41].

In organisations, SPOC is important because of the role it plays and implications for ORG, how decisions are made, the interactions between supervisors and subordinates and is an important aspect of a manager's coalition [44].

Strategic Business Success (SBS)

SBS was the dependent variable. It refers to the business ability to maintain sustained business position (financial and non-financial) and performance over a period of time. Businesses are described as successful when they do make or possess skills and technical know-how to balance resource use and allocation. A successful business essentially comprises of financial and non-financial success performance indicators.

Financial performance (profitability, growth, return on assets and return on equity) indicate competitive advantage [45], [46]. Non-financial performance includes new product and service introduction, time to market new product and service, number of successful new products and services and reputation [46]; organisational reputation [47], [48].

Generally, profitability is measured by Return on Asset (ROA), Return on Equity (ROE), Net Interest Margin (NIM) and Return on Capital Employed (ROCE) variables [49]. Profitability ratios measure a firm's ability to generate profits and central investment to security analysis, shareholders, and investors, and profitability is the primary measure of the overall success of enterprise [50]. Return on investment is important because it is an indicator for measuring the profitability of invested capital [51].

Empirical Review

Organisational structure and Strategic Business Success

[21] studied the impact of ORG dimensions on innovation performance. The findings revealed that training boosts organisation's capacity to innovate, whereas direct supervision as a coordination mechanism significantly restricts this capacity. Innovative performance supports business customers' relationship value and financial performance, while financial outcomes are beneficially affected by profitable

relationships with customer relationship value. As a recommendation, managers are encouraged to facilitate structures that adopt training and minimise direct supervision to foster the development of a competitive advantage based on innovation, creativity and business clients' relationship.

In their study, [22] examined the effect of ORG on the performance of selected manufacturing companies in Nigeria with a focus on pharmaceutical manufacturing firms. The study found that ORG significantly affects performance and concludes that ORG in pharmaceutical manufacturing firms affects performance except in its growth objective. The study recommends that pharmaceutical firms should consider their structure as a major determinant of performance and as such, non-performing firms should redesign their structure for optimal performance.

[52] sought to assess whether hospitals in different health system structures in the United States varied in their interoperable data sharing. The study found that interoperability engagement varied greatly across hospitals in different health system structures, with facilities in more centralised health systems more likely to be interoperable. Hospitals in one system type, with centralised insurance product development and diverse service offerings across member organisations, had significantly higher odds of being engaged in interoperable data sharing in our multivariate regression results.

A study conducted by [53] indicated that "an ORG plays a crucial role in the success of an organisation" and argued that a "successful organisation normally uses a horizontal and less complicated structure". The study sought to identify the relationship between an organisation's structure (especially formality, complexity and concentration) to its performance. Findings revealed that "although there were some positive impacts from the formality and concentration on the organisational performance, there was no indication of any possible effect from the complexity of the structure on the organisational performance".

In a conference paper, [54] examined the impact ORG on organisational performance. It was hypothesised that an organisation cannot exist without a definite structure and that the

purpose of ORG is the division of work among members of the organisation so that coordination of their activities is directed towards the goals and objectives of the organisation. The findings revealed that ORG impacted organisational performance. As such, an organisation should strive to have a well-defined structure in place in order to achieve its set objectives.

A study by (Ogbo, Chibueze, Christopher, & Anthony, 2015) investigated the impact of structure on organisational performance in Innoson Nigeria Ltd and Etisalat in Nigeria. The findings revealed that DECE option enhanced better and more informed decision making in technical and service firms in Nigeria. Findings also showed that task routine affected staff productivity both positively and negatively while a significant positive relationship existed between narrow SPOC and efficiency in the organisations under study. The study recommended that managers consider a more decentralised form of structures as a means of improving the decision-making process. Similarly, it also recommended that managers should combine both task routine and variety in organising employees to carry out task in order to reap the advantages of both systems of task assignment. It also concluded that employees should be empowered to be more innovative in carrying out tasks, whether routine or not.

[55] studied the impact of ownership structure on performance in European banking sector both prior and during the recent crisis. The findings revealed that differences in level of profitability and the quality of loans between stakeholder and shareholder banks before the crisis are common in countries that experienced a banking crisis after 2007. But there is strong heterogeneity in performance between different stakeholder ownership groups. Except for private savings banks, profitability and quality of loan of stakeholder banks relatively improved as compared to that of shareholder banks during the crisis years. The findings provide support for those arguing that the diversity of organisational structures is worth preserving.

[56] examined effects of organisational culture and structure on the implementation of activity-based costing (ABC) in Chinese firms. The findings showed that a formalised ORG significantly affects the success of implementing ABC. The study also revealed that interactions between CENT and outcome orientation and

formalisation and innovation were associated with success in implementing ABC.

[25] studied effects of ORGs and learning organisation on job embeddedness and performance. The findings revealed that organic ORG has no direct effect on individual adaptive performance but mechanistic ORG affects job embeddedness positively, while it has no direct effect on individual adaptive performance. Learning organisation fully mediated the relationships between organic ORG and performance and also learning organisation has a full mediator role between mechanistic ORG and individual adaptive performance.

[35] investigated the impact of ORG on organisational commitment in Jordan which considered three structural dimensions (formalisation, centralisation and standardisation) in 23 public and private firms. The findings indicated that all structure dimensions are related to organisational commitment in both sectors, except the hierarchy of authority. On the structure dimensions, formalisation showed a higher correlation with organisational commitment in public firms, while participation indicated a higher correlation with organisational commitment in private firms.

Based on the kind of structure that enhances organisational effectiveness, it can be argued that structure is critically essential for an organisation because it provides a foundation over which an organisation achieves its overall strategic objective. Whatever, the form of ORG designed and chosen by an organisation, it should act as a framework along which attainment of shareholder and stakeholder objectives is premised. Business needs of an organisation play a significant role in advising an organisation on the type of structure to adopt because it has a strong relationship with business strategy.

From the foregoing analysis, ORG enhanced SBS to the extent that they support achievement of business objectives. Businesses should design a structure that allows efficient, effective and prompt decision making process - a central pillar in organisational success. As a result of the above analysis, it was hypothesised that: *there is a significant positive relationship between ORG and SBS.*

Methodology

The study was carried out using survey research design, while descriptive analysis was employed plus inferential analysis using correlation and regression analysis. Descriptive approach was adopted to establish relationship between variables without seeking to establish causality. In this study, a structured self-administered questionnaire physically distributed to the respondents was used. In addition, semi-structure key informants' questionnaire was distributed to purposively selected individuals considered to have rich data and provided the data that was necessary for this research.

Target respondents were 347 licensed petroleum supply companies represented by top, middle and lower managements. The sampling frame (list of licensed petroleum companies as at 31 December 2019) was obtained from the Ministry of Energy and Mineral Development (MEMD). The study used cluster sampling technique because the licensed petroleum companies were spread throughout Uganda and target population was homogenous but was spread in a wide geographical area [57], [58].

In total, one hundred eighty-six (186) questionnaires were physically delivered and one hundred seventy-four (174) usable questionnaires were returned, representing 93.55% response rate. This is considered a good response rate considering that response rates to surveys have been declining over the last 30 years [59]. The drop-out rate of 6.45% shows the estimate of a number of subjects who can leave out the study due to some reason [60].

Measurement

To measure responses, the study employed the 5-point Likert scale. [61] assert that for the large studies with population of more than 100, it is better to use a 5-point Likert scale. This is because in a Likert-response, item with choices varying from "Strongly Disagree" to "Disagree" to "Neutral", to "Agree" to "Strongly Agree", brings a balance in the mind of the research participant due to existence of equal distance between each of these choices. The response options appear "balanced" in that the items to the left of "Neutral" have an equal number of counterparts to the right of "Neutral". If the response choice is unbalanced to either side, the

possibility of that item being an interval measurement seems greatly diminished [62]. In addition, qualitative data was analysed using themes, categories and codes that captured opinions on various variables.

Techniques for Data Analysis

The data presented in this study were analysed using sets of techniques. The descriptive analysis was used to summarise the respondents' basic characteristics and profile. A correlation analysis and regression techniques were used to assist in checking interrelationship and strength of the relationship between variables and their direction of their relationship. This was aided by the use of SPSS software

version 20. Qualitative data was analysed by identification of main themes and codes that supported interpretation and analysis of quantitative data.

Results

Descriptive Statistics

Licensed Activities

Of the sampled companies who returned the questionnaires, the majority (76.4%) were licenced for retail and importation. Other activities are wholesale with 17.8%, transportation and logistics registered 0.6% as shown in Table 1.

Table 1.: Licensed petroleum companies' activities

Licensed Activities	Frequency	Percent	Cumulative Percent
Importation	45	25.9	25.9
Retail	88	50.6	76.4
Wholesale	31	17.8	94.3
Transportation & Logistics	1	0.6	94.8
Depot & Storage	9	5.2	100.0
Total	174	100.0	

Positions of Staff Interviewed

From Table 2, the majority, 72.4% were middle management and top management was 10.3%. In most companies, middle managers are the recipients and implementers of company

strategies. Among top management were Managing Directors, CEOs and Directors, an indication of the level of acceptance and attention the study received implying the result is of good quality and representative.

Table 2. Positions of staff interviewed

Position	Frequency	Percent	Cumulative Percent
Top management	18	10.3	10.3
Middle management	126	72.4	82.8
Lower management	30	17.2	100.0
Total	174	100.0	

Years of operation for companies

The majority, 69% of the companies have operated for between 6 to 15 years. About 6.8% have existed for between less than 2 to 5 years. As shown in Table 3, the result shows that the

majority of the companies fall between 6 to 15 years demonstrating that a good number may probably have participated in the study making it comprehensive and representative.

Table 3. Years of existence for sampled companies

Years of Existence	Frequency	Percent	Cumulative Percent
<2 years	6	3.4	3.4
3 to 5 years	6	3.4	6.9
6 to 10 years	72	41.4	48.3
11 to 15 years	48	27.6	75.9
16 to 20 years	12	6.9	82.8
>20 years	30	17.2	100.0
Total	174	100.0	

Classification of Companies

As in Table 4, the companies were categorised as NOC (0.6%), regional companies (6.9%) which represent companies with regional presence within the political East African Community, and MNCs (4%) that operate in transnational arrangement within or outside Africa. The majority of the companies (86.2%) are independent marketers (companies that operate single or multiple pump stations without

attachment to any known brand or franchise). The 'others' represents companies that have acquired petroleum operator licence but are not petroleum companies in the strictest sense of the word. For example, manufacturing plants or industries that acquire a licence to enable them import and/or store petroleum products for own use. These companies are essentially industrial consumers or processors.

Table 4. Classification of Companies

Category	Frequency	Percent	Cumulative Percent
NOC	1	0.6	0.6
Regional	12	6.9	7.5
MNC	7	4	11.5
Independent	150	86.2	97.7
Others	4	2.3	100
Total	174	100	

NOC = National Oil Company

MNC= Multinational company

Estimated market share of companies

The study revealed that market share in the downstream petroleum industry is dominated by independent marketers who individually have less than 5% market share but collectively

account for 92.3%. Companies with market share between 16 to 20% account for 1.1%. Most companies that returned questionnaires did not have any with market share more than 20% as in Table 5.

Table 1. Estimated market share of companies

Market share	Frequency	Percent	Cumulative Percent
<5%	161	92.5	92.5
6 - 10%	8	4.6	97.1
11 - 15%	3	1.7	98.9
16 - 20%	2	1.1	100.0
21% >	-	-	-
Total	174	100.0	

Inferential Statistics

The study investigated the relationship between ORG and SBS. In the next section,

detailed explanation of the predictor item is made.

Correlation Analysis

Correlation analysis for the variables was conducted as illustrated in the correlation matrix Table 6. The results indicated a positive and significant relationship between ORG and SBS characterised by a highly strong correlation between the two variables ($r=0.701$, $p=0.000$). For individual constructs, CORD shows a highly

strong positive and significant correlation ($r=0.838$, $p=0.000$), SPOC indicates a fairly strong positive and significant correlation ($r=0.710$, $p=0.000$), DECE also shows a fairly positive and significant correlation ($r=0.700$, $p=0.000$) and CENT indicates a moderately strong positive and a significant correlation ($r=0.666$, $p=0.000$).

Table 2. Correlation Matrix

	ORG	SPOC	CORD	CENT	DECE	SBS
ORG	1					
SPOC	.710**	1				
CORD	.838**	.463**	1			
CENT	.666**	.343**	.395**	1		
DECE	.700**	.279**	.569**	.200**	1	
SBS	.701**	.403**	.624**	.373**	.641**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

Table 7 shows the overall model fitness in explaining ORG, because it predicted changes in SBS evidenced by a coefficient of determination (R square) of 0.491. This means that 49.1% of variance in SBS can be predicted by ORG. The

R-Square is an overall measure of the strength of association, not extent to which a particular independent variable is associated with the dependent variable. It is an estimate for how well ORG predict the SBS.

Table 7. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.701 ^a	.491	.488	3.82472

a. Predictors: (Constant), ORG

As illustrated in Table 8, the analysis of variance (ANOVA) results indicate that the overall model was statistically significant. The p-value ($p=0.000$) when compared to the alpha level ($p=0.05$) is smaller implying that ORG

reliably predict SBS. This is supported by the F statistic for the ANOVA which is 165.764 implying that it meets the criterion for significant value.

Table 8. Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2424.870	1	2424.870	165.764	.000 ^b
Residual	2516.095	172	14.628		
Total	4940.966	173			

a. Dependent Variable: SBS
b. Predictors: (Constant), ORG

Table 9 shows that ORG and SBS are positively and significantly related ($r=0.630$,

$p=0.000$), where a unit change in ORG increases SBS by 0.630 units.

Table 3. Regression of Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	16.754	1.858		9.019	.000
ORG	.630	.049	.701	12.875	.000

a. Dependent Variable: SBS

The direction of the relationship between ORG and SBS is determined from the standardised beta coefficient, $\beta=+0.701$, indicating that higher scores on ORG predict higher ratings for SBS. In summary, a regression analysis showed that ORG scores significantly predicted ratings for SBS, $\beta=+0.701$, $F(1,172)=165.764$, $p<0.000$ ($R^2=.491$). From the results and findings, it is concluded that ORG has a positive and significant relationship with SBS, hence hypothesis accepted.

Discussion

As hypothesised, it was found that there was a positive and significant relationship between ORG and SBS characterised by strong correlation between the two variables ($r=0.701$, $p=0.000$). This means that a unit change in ORG leads to a change in SBS by 0.701 units. The regression analysis also showed an overall model fitness because coefficient of determination (R-Square) of 0.491, implying that 49.1% of variance in SBS can be predicted from ORG.

From individual constructs of ORG, based on frequency analysis, respondents ranked SPOC and CORD equally (69.7%) higher than DECE (68%) and CENT (58.3%) although regression analysis standardised beta coefficient shows different ranking. The finding therefore implies that each petroleum company should, based on its internal capacity and resources, determine the best structure to support achievement of SBS. Any option chosen should consider employees who shall be affected by any decision.

Descriptive analysis revealed that 67.1% of respondents agreed an ORG is a firm foundation for organisational success. This was supported by correlation coefficient and regression analysis that indicated a strong and positive relationship between organisational structure and SBS. This implies that for an organisation to deliver its strategic objective, it must design a structure that considers effect of such structure on employee morale, customer service requirement and the needs of other stakeholders.

Structures that negatively impact staff morale resultantly also negatively affect performance of an organisation. Therefore, for an organisation to perform well, it must have an organisational structure that provides a robust opportunity for staff to perform at their best without being curtailed by bureaucratic tendencies.

Studies on SPOC support managers having smaller spans of control to manage relationships with direct and indirect reports. However, in situations where the work performed is less complex the more likely a larger SPOC can be accommodated. In the current study, the majority of respondents agreed that the SPOC within their companies has reasonable number of subordinates reporting to a manager and is an important ingredient of ORG and resultantly impact SBS. This finding is corroborated by [63] who found that it was unfavourable to have a large number of subordinates reporting to one manager and managers who were members of management teams with a better average SPOC experience some job demands to a good higher extent.

The petroleum industry strives for efficiency, effectiveness and economy in their competitive landscape with quick turnaround in decision making especially because this industry is quite volatile due to frequent changes in international crude oil markets and exchange rates. Therefore, a structure that enables quick decision making is highly recommended. However, this finding is inconsistent with [64] who found that there was no association between SPOC and employee engagement. The circumstance in which Norton Healthcare (Kendall's testing ground) operates needs to be understood because being a healthcare provider, the turnaround time in handling emergencies, intensive care patients and general quality service is a hallmark of healthcare service provision.

This study found that ORG is associated with SBS evidenced by the positive and significant relationship between the two variables. However, this finding is inconsistent with [65]

that revealed the health system ORG and culture on health services for HIV service monitoring in South Africa was centralised and highly formalised. The inconsistency can be looked at from the perspective of effective management of health in the context of pervasive HIV which is causing untold suffering in every community in the world. To ensure no abuse or uncoordinated delivery of effective HIV system, concentration of decision making at the centre is truly understandable. This significantly differs from the petroleum industry where stakeholders' can be adequately served if systems are decentralised for better decision making.

The study results indicate that the majority of respondents agreed that CORD is effective in their respective organisations. This is consistent with [66] who argue that every organisation designs a management structure that works for it but also determines the relationships between the different functional activities, the members and flexibly subdivides and assigns different roles, responsibilities, and authority to carry out different tasks. Such activities must be properly coordinated to achieve desired collective goals. For an organisation to attain its desired objective, it must establish an effective and efficient coordination and linkages of internal and external components that minimises internal and external complexities that create bureaucratic environment. An organisation's structure and coordination are crucial design options. Therefore, the link between structure and coordination is important because an organisation structure inevitably includes the assignment of tasks to various individuals or subunits, the regular apportionment of resources to these functional units, the appropriate designation of customers and markets to units, and generally the breakdown of the larger problem for smaller units. Coordination is bringing the units together through communications, IT, leadership, culture, incentives, routines and procedures, and usually what we call management [66].

Although the findings from this study points to a generalisation that ORG has a significant and positive relationship with SBS, the work of [67] advises otherwise. The authors reported that ORG elements showed different effects on different innovation orientations. For example, formalisation (CORD) had no significant relationship with exploratory innovation but

showed a positive relationship with exploitative innovation. Centralisation showed a negative relationship with exploratory innovation but had no relationship with exploitative innovation. The current study concentrated on the downstream sector of the petroleum industry, while the findings from [66] point towards the midstream and upstream where exploration and exploitation of petroleum products occur. Nonetheless, an organisation involved in exploratory and exploitative innovation activities need to be cognisant of the structure that enables innovation and exploitation that allow companies to create and develop competitive advantage.

A decentralised system creates avenues where decision making is quicker and reliably fast. In this way, companies with decentralised system can react to market pressure, competitor behaviour and technological changes more effectively than centralised systems. The current study found that two-thirds of the respondents preferred DECE as compared to CENT. A Study by Ogbo, Chibueze, Christopher and Anthony (2015) in Nigeria revealed that DECE option enhanced better and more informed decision making. Although DECE is desirable due to speed of its decision making, sometimes the decision to decentralise or not is judged on many factors. For example, decentralised systems are more frequently found in new businesses—not because of choice or decision, but usually because of the lack of experience and management skills [68]. However, this may not be practical in the context of petroleum companies in Uganda where over three-quarter is independently owned and are family-businessess.

However, this study contradicts that of Minas, Wright, and van Berkel (2012) who found that there is increasing central control by transferring political or financing responsibility or both to the centre but not in outcome in terms of varying organisational solutions. The study by [69] was in the context of the central and local governments where control over resources and political decisions are important in maintaining control and authority.

ORG should be adaptable, fluid and act as a basis for learning and knowledge acquisition for competitive advantage. The current study partly agrees with Kanten, Kanten and Gurlek (2015) who investigated the effects of ORG and

learning organisation on job embeddedness and individual adaptive performance. The findings revealed that organic organisation structure has no direct effect on individual adaptive performance but mechanistic organisation structure affects job embeddedness positively, while it has no direct effect on individual adaptive performance.

In summary, results show that ORG is important in SBS. The study showed that there is a positive significant relationship between ORG and SBS. Therefore, from the results and findings, it can be concluded that there was significant association between ORG and SBS.

Conclusion and Implications

The study aimed to determine the relationship between ORG and SBS. Based on analyses and results, ORG has a positive and significant relationship with SBS because it adequately predicts variations in SBS. All dimensions of ORG have positive and significant relationships with SBS although DECE and CORD make bigger contributions to ORG and ultimately SBS, CENT to a less extent. This study concludes that petroleum companies should strengthen and manipulate DECE and CORD to meet the growing needs of the downstream petroleum industry.

It can therefore be said that in this study, SPOC, CORD, DECE and CENT constituted the right dimensions of ORG, although their level of contribution varies.

Participants ranked SPOC and CORD higher than DECE and CENT. It is recommended that petroleum companies assess and decide which type of ORG will make it more competitive and enable them achieve strategic goal. Majority of respondents agreed that their individual companies have linked their ORG and strategy to generate sustainable performance (success). To continue to achieve intended objective and grow their enterprises, petroleum companies should adopt a structure that supports their strategy and enhance their competitive advantage.

Limitation of the study

This study acknowledges several limitations. Firstly, the study focused on only the petroleum companies in Uganda. Consequently, generalising the findings to other petroleum

supply companies in other countries will require further investigations.

This study focused on licensed petroleum companies (347) with about 1,100 retail outlets. However, during literature review and data collection, it was revealed that there are over 2,600 retail outlets in Uganda. As compared to those of licensed companies, it implies there are over 1,500 retail outlets for unlicensed petroleum companies. It is recommended that future study be undertaken to study the impact of the unlicensed petroleum companies.

The current study was completed using a cross-sectional survey design, a similar study be planned that uses a longitudinal design to determine if changes over time become perceptible.

Lastly, not all targeted petroleum companies were willing to participate in the study. Some declined after receipt of the questionnaire citing company policies. The researcher therefore managed this situation by replacing companies that declined with those with similar attributes/characteristics and willing to participate.

References

- [1]. Giner, E. (2020, April 22). How COVID-19 Will Impact Organizational Design. Barcelona, Spain.
- [2]. Faye, M. L., McArthur, J. W., Sachs, J. D., & Snow, T. (2004). The Challenges Facing Landlocked Developing Countries. *Journal of Human Development*, 5(1), 31–68. doi:10.1080/14649880310001660201, 31-68.
- [3]. Bennett, & Lemoine. (2014, January - February). What VUCA Really Means for You. *Harvard Business Review*.
- [4]. Falola, T., & Genova, A. (2005). *The politics of the global oil industry: An introduction*. Portsmouth: Greenwood Publishing Group.
- [5]. Stacey, R. (2003). *Strategic Management and Organizational Dynamics*. London: Prentice Hall.
- [6]. Crespi, T., Rezende da Costa, P., Preusler, T., & Porto, G. (2019). The alignment of organizational structure and R&D management in internationalized public company: the EMBRAPA Case". *Innovation & Management Review*, Vol. 16 Issue: 2, doi.org/10.1108/INMR-07-2018-0046, , 193-216.
- [7]. Grevesen, C. W., & Damanpour, F. (2007). Performance implications of organisational structure and knowledge sharing in multinational R&D networks,. *International Journal of Technology*

- Management*, 38(1/2), 113. doi:10.1504/ijtm.2007.012432, , 113-136.
- [8]. Adner, R., & Helfat, C. E. (2003). 'Corporate effects and dynamic managerial capabilities'. *Strategic Management Journal*, 24(10 SPEC ISS.). doi:10.1002/smj.331, , 1011-1025.
- [9]. Shalley, C. E., Hitt, M. A., & Zhou, J. (2015). The Oxford Handbook of Creativity, Innovation, and Entrepreneurship. *Oxford library of psychology. Oxford University Press*. <https://doi.org/10.1093/oxfordhb/9780199927678.001.0001>, 1689-1699.
- [10]. Ogola, N.D.; Marjery, S.R.; & Bagire, V.; (2019). Managerial Capabilities and Strategic Business Success in the Petroleum Industry in Uganda. *Texila International Journal of Management ISSN: 2520-310X DOI: 10.21522/TIJMG.2015.06.02.Art002*
- [11]. Ministry of Energy and Mineral Development, (. (2019). *Annual Report, July 2017 - June 2018*. Kampala: Ministry of Energy and Mineral Development (MEMD).
- [12]. Sudrajat, R. (2020). *Changes in Organisational Structure and Service Systems in Supermarkets when Pandemic COVID-19*. Faculty of Economics and Business, Padjadjaran University.
- [13]. Carvalho, A. D., Cunha, S. K., Lima, L. F., & Carstens, D. D. (2017). The role and contributions of sociological institutional theory to the socio-technical approach to innovation theory,. *RAI Revista de Administração e Inovação*, 14(3), doi:10.1016/j.rai.2017.02.001, , 250-259.
- [14]. Guth, K. (2016). Institutional Theory of Organisations. . In K. Guth, *The SAGE Encyclopedia of Corporate Reputation* (pp. 360-361). Thousand Oaks: SAGE Publications, Inc.
- [15]. Geels, F. (2010). Ontologies, socio-technical transitions (to sustainability), and the multi-level perspective. . *Research Policy*, 39,, , 495-510.
- [16]. Birken, S. A., Bunger, A. C., Powell, B. J., Turner, K., Clary, A. S., Klamann, S. L., & ... Weiner, B. J. (2017). Organizational theory for dissemination and implementation research. *Implementation Science*, 12(1). doi:10.1186/s13012-017-0592-x .
- [17]. Robbins, S., DeCenzo, D., & Coulter, M. (2014). Defining organizational structure. . In S. D. Robbins, *Fundamentals of management: Management Myths Debunked*. (p. 106). London: Pearsons Higher Ed.
- [18]. Ribeiro, V. C., Salles-Filho, S. L., & Bin, A. (2015). Gestão de institutos públicos de pesquisa no Brasil: Limites do modelo jurídico. *Revista de Administração Pública*, 49, <http://dx.doi.org/10.1590/0034-7612126590>, 595-614.
- [19]. Greenberg, J. (2011). *Behaviour in Organisations (10th ed.)*. Upper Saddle River, New Jersey: Prentice Hall.
- [20]. Andrews, R. (2010). "Organizational social capital, structure and performance. *HUMAN Relations*, Vol.63 No.5, 583-608.
- [21]. Dekoulou, P., & Trivellas, P. (2017). Organizational structure, innovation performance and customer relationship value in the Greek advertising and media industry. . *Journal of Business & Industrial Marketing*, Vol. 32 Issue: 3, <https://doi.org/10.1108/JBIM-07-2015-0135>, 385-397.
- [22]. Nwonu, C., Agbaeze, E., & Obi-Anike, H. (2017). Effect of Organizational Structure on Performance of Selected Manufacturing Companies in Enugu State Nigeria,. *The International Journal Of Business & Management*, Vol 5 Issue 5, 190-206.
- [23]. Martínez-León, M., & Martínez-García, J. (2011). "The influence of organizational structure on organizational learning",. *International Journal of Manpower*, Vol. 32 No. 5/6, <https://doi.org/10.1108/01437721111158198>, 537-566.
- [24]. Zhang, L., Cao, T., & Wang, Y. (2018). The mediation role of leadership styles in integrated project collaboration: An emotional intelligence perspective. *International Journal of Project Management*, 36(2), doi:10.1016/j.ijproman.2017.08.014, , 317-330.
- [25]. Kanten, P., Kanten, S., & Gurlek, M. (2015). The Effects of Organizational Structures and Learning Organization on Job Embeddedness and Individual Adaptive Performance,. *2nd Global Conference on Business, Economics, Management and Tourism, 30-31 October 2014* (pp. 1358-1366). Prague, Czech Republic: Procedia Economics and Finance, Academic World Research and Education Center.
- [26]. Liao, C., Chuang, S.-H., & To, P.-L. (2011). How Knowledge Management Mediates The Relationship Between Environment and Organizational Structure,. *Journal of Business Research*, 64,, 728-736.
- [27]. Sablinski, C. J. (2012). "Foundation of Organisational Structure,". Retrieved from <http://www.csus.edu/indiv/s/sablinskic/ch.14.html> 2012
- [28]. Tran, Q., & Tian, Y. (2013). Organisational Structure: Influencing Factors and Impact on a Firm.

- American Journal of Industrial and Business Management*, 3,, 229-236.
- [29]. Underdown, J. (2012). "Organisational Structures,. Retrieved from http://dept.lamar.edu/industrial/underdown/org_managing/org_structure-George.html
- [30]. Andrews, M. C., & Kacmar, K. M. (2001). "Discriminating among organizational politics, justice, and support",. *Journal of Organizational Behavior*, Vol. 22 No. 4,, 347-366.
- [31]. Zheng, W., Yang, B., & McLean, G. N. (2010). Linking Organizational Culture, Structure, Strategy and Organizational Effectiveness: Mediating Role of Knowledge Management. *Journal of Business Research*, 63(2),, 763-771.
- [32]. Teixeira, R., Koufteros, X. A., & Peng, X. D. (2012). Organisational Structure, Integration, and Manufacturing Performance: A Conceptual Model and Propositions. *Journal of Operations and Supply Chain Management*, 5(1), 69-81.
- [33]. Spanos, Y., Prastacos, G., & Papadakis, V. (2001). Greek firms and EMU: Contrasting SMEs and large-Sized Enterprises. *European Management Journal*, Vol.19 No.6, 638-648.
- [34]. Bodewes, W. (2002). "Formalization and innovation revisited",. *European Journal of Innovation Management*, Vol. 5 No. 4,, 214-223.
- [35]. Al-Qatawneh, M. (2014). The Impact of Organizational Structure on Organizational Commitment: A Comparison between Public and Private Sector Firms in Jordan,. *European Journal of Business and Management*, Vol.6, No.12,, 30-37.
- [36]. Marume, S., & Jubenkanda, R. (2016). Centralization and Decentralization. *Journal of Research in Humanities and Social Science*, Volume 4 ~ Issue 6, 106-110.
- [37]. Jones, G. (2013). *Organizational Theory, Design, and Change (7th Ed.)*. Harlow, England: Pearson.
- [38]. Subramaniam, N., McManus, L., & Mia, L. (2002). Enhancing Hotel Managers' Organisational Commitment: An Investigation of the Impact of structure, Need for Achievement and Participative Budgeting. *An Investigation of the Impact of structure, Need for Achievement and Participative Budgeting. Hospitality Management*, 21, [https://doi.org/10.1016/S0278-4319\(02\)00010-5](https://doi.org/10.1016/S0278-4319(02)00010-5), 303-320.
- [39]. Schyns, B., Maslyn, J. M., & Weibler, J. (2010). Understanding the relationship between span of control and subordinate consensus in leader-member exchange. *European Journal of Work and Organizational Psychology* 19(1): <https://doi.org/10.1080/13594320903146485>, 1-19.
- [40]. Holm-Petersen, C., Østergaard, S., & Andersen, P. B. (2017). "Size does matter - Span of control in hospitals. *Journal of Health Organisation and Management*, Vol. 31, Issue 2, doi: 10.1108/JHOM-04-2016-0073, 1-23.
- [41]. Wong, C. A., Elliott-Miller, P., Laschinger, H., Cuddihy, M., Meyer, R. M., Keatings, M., & ... Szudy, N. (2013). Examining the relationships between span of control and manager job and unit performance outcomes. *Journal of Nursing Management*, 23(2), DOI: 10.1111/jonm.12107, , 156-168.
- [42]. Meyer, R. (2008). Span of management: concept analysis. . *Journal of Advanced Nursing* 63 (1), , 104-112.
- [43]. Skagert, K., Dellve, L., & Ahlborg, G. (2011). A prospective study of managers' turnover and health in a healthcare organization. . *Journal of Nursing Management*, 20(7),; <https://doi.org/10.1111/j.1365-2834.2011.01347.x>, 889-899.
- [44]. Bandiera, O., Prat, A., Sadun, R., & Wulf, J. (2014). Span of Control and Span of Attention. *Harvard Business School, Working Paper*, 12-053, 1-31.
- [45]. Brito, R. P., & Brito, L. A. (2012). Vantagem competitiva e sua relação com o desempenho: uma abordagem baseada em valor. *Revista de Administração Contemporânea*, 16(3), doi:10.1590/s1415-65552012000300003,, 360-380.
- [46]. Mostafiz, M. I., Sambasivan, M., & Goh, S. K. (2019b). "Impacts of dynamic managerial capability and international opportunity identification on firm performance",. *Multinational Business Review*, <https://doi.org/10.1108/MBR-09-2018-0061>.
- [47]. Dolphin, R. (2004). "Corporate reputation – a value creating strategy",. *Corporate Governance: The international journal of business in society*, Vol. 4, Issue 3, 77-92.
- [48]. Carmeli, A., & Tishler, A. (2005). "Perceived organizational reputation and organizational performance: an empirical investigation of industrial enterprises. *Corporate Reputation Review*, Vol. 8, No.1, 13-30.
- [49]. Fareed, Z., Ali, Z., Shahzad, F., Nazir, M. I., & Ullah, A. (2016). Determinants of Profitability: Evidence from Power and Energy Sector,. *STUDIA UBB OECONOMICA*, Volume 61, Issue 3, DOI: 10.1515/subboec-2016-0005, 59-78.
- [50]. Nimalathan, B. (2009). Profitability of listed pharmaceutical companies in Bangladesh: An inter and intra comparison of AMBEE and IBN SINA

- Companies Ltd., *Analele of University Bucharest, Economic and Administrative Sciences*, , 139-148.
- [51]. Zamfir, M., Manca, M. D., & Ionescu, L. (2016). Return on Investment – Indicator for Measuring the Profitability of Invested Capital. *Valahian Journal of Economic Studies*, 7(2), doi:10.1515/vjes-2016-0010, 79-86.
- [52]. Holmgren, A. J., & Ford, E. W. (2018). Assessing the impact of health system organizational structure on hospital electronic data sharing. *Journal of the American Medical Informatics Association*, 25(9), doi: 10.1093/jamia/ocy084, 1147-1152.
- [53]. Khaleghi, D., Alavi, H., & Alimiri, M. (2013). A study on the effects of organizational structure on success of performance measurement. *Management Science Letters*, 3(6): <https://doi.org/10.5267/j.msl.2013.05.028>, 1147-1152.
- [54]. Maduenyi, S., Oke, A., Fadeyi, O., & Ajagbe, M. (2015). Impact of Organisational Structure on Organisational Performance. *International Conference on African Development Issues (CU-ICADI)*, (pp. 354-358). Social and Economic Models for Development Track.
- [55]. Ferri, G., Kalmi, P., & Kerola, E. (2015). "Organizational Structure and Performance in European Banks: A Reassessment". In *Advances in the Economic Analysis of Participatory & Labor-Managed Firms*. <http://dx.doi.org/10.1108/S0885-333920150000016011>, 109-141.
- [56]. Zhang, Y. F., Hoque, Z., & Isa, C. R. (2015). "The Effects of Organizational Culture and Structure on the Success of Activity-Based Costing Implementation". In *Advances in Management Accounting*, <http://dx.doi.org/10.1108/S1474-787120150000025008>, 229-257.
- [57]. Alvi, M. (2016). *Manual for Selecting Sampling Techniques in Research*, MPRA Paper No. 70218. Karachi: University of Karachi, Iqra University.
- [58]. Levy, P., & Lemeshow, S. (2008). *Sampling of Populations: Methods and Applications*. Hoboken,: John Wiley & Sons.
- [59]. National Research Council, (. (2013). *Nonresponse in Social Science Surveys*. Washington, DC: The National Academies Press; <https://doi.org/10.17226/18293>.
- [60]. Gupta, K., Attri, J., Singh, A., Kaur, H., & Kaur, G. (2016). Basic concepts for sample size calculation: Critical step for any clinical trials!. *Saudi journal of anaesthesia*, 10(3), <https://doi.org/10.4103/1658-354X.174918>, , 328-331.
- [61]. Wu, H., & Leung, S.-O. (2017). Can Likert Scales be Treated as Interval Scales?—A Simulation Study. *Journal of Social Service Research*, 43(4), doi:10.1080/01488376.2017.1329775, , 527-532.
- [62]. Bishop, P. A., & Herron, R. L. (2015). Use and Misuse of the Likert Item Responses and Other Ordinal Measures. *International journal of exercise science*, 8(3), , 297-302.
- [63]. Wallin, L., Pousette, A., & Dellve, L. (2013). Span of control and the significance for public sector managers' job demands: A multilevel study. *Economic and Industrial Democracy*, 35(3), doi:10.1177/0143831x13488002, , 455-481.
- [64]. Kendall, J. M. (2018). *Nurse Manager Span of Control and the Impact on Employee Engagement*. Kentucky: University of Kentucky.
- [65]. Kawonga, M., Blaauw, D., & Fonn, S. (2016). The influence of health system organizational structure and culture on integration of health services: the example of HIV service monitoring in South Africa. *Health Policy and Planning*, 31(9), doi: 10.1093/heapol/czw061, 1270-1280.
- [66]. Burton, R. M., & Obel, B. (2018). The science of organizational design: fit between structure and coordination. *Journal of Organization Design*, 7(1), doi:10.1186/s41469-018-0029-2, , 1-13.
- [67]. Prajogo, D., & McDermott, C. M. (2013). Antecedents of Service Innovation in SMEs: Comparing the Effects of External and Internal Factors. *Journal of Small Business Management*, 52(3), doi:10.1111/jsbm.12047, , 521-540.
- [68]. Kanepejs, E., & Kirikova, M. (2018). Centralized vs. Decentralized Procurement: A Literature Review. *BIR Workshops* (pp. 218-232). BIR Workshops.
- [69]. Minas, R., Wright, S., & van Berkel, R. (2012). Decentralization and centralization. *International Journal of Sociology and Social Policy*, 32(5/6), doi:10.1108/01443331211236989, , 286-298.