

Internal Organisational Factors that Influence the Adoption of Strategic Outsourcing within Supply Chains

Ronald Ajuk

University of Liverpool Online, United Kingdom

Abubaker Haddud

University of Liverpool Online, United Kingdom

Abstract

The purpose of this paper was to identify what key internal organisational factors, and how they, influence the adoption of strategic outsourcing within supply chains in the Ugandan oil and gas sector. The research also aimed to identify best ways to manage internal organisational factors to improve strategic outsourcing adoption. Data was collected through the use of a semi-structured interview consisted of 23 questions divided into three main sections based on the three main research questions. Qualitative data was collected from 104 managers directly involved with aspects related to strategic outsourcing adoption within the supply chains of three International Oil Companies and four Oilfield Service Companies operating in the oil and gas sector in Uganda. The study results indicated that the four key factors influencing outsourcing adoptions were: cost reduction, need to focus more on core competences, lack of appropriate technological capabilities, and the need to have access to new ways of doing things. It is recommended that more research is conducted to explore potential external factors that may influence the adoption of strategic outsourcing. It is also recommended to research how better capacity building may impact the success of strategic outsourcing adoption. This research contributes to the pool of knowledge about the domain of outsourcing within oil and gas supply chains. The study can also serve as a valuable guideline for concerned managers to help them effectively plan, implement, and manage strategic outsourcing initiatives within the Ugandan oil and gas sector.

Keywords: strategic outsourcing, internal organisational factors, supply chain, oil and gas, Uganda

Introduction

The oil and gas industry in Uganda, as an emerging sector, is potentially seen as a good contributor to national economic development (Twebaze, 2013). Ongoing petroleum operations in Uganda is opening up various business opportunities in the upstream and mid-stream these are expected to expand as the oil and gas sector grows (Wamono et al., 2012). Government policy encourages private sector investment into the oil and gas industry. Encourages partnerships between foreign and Uganda companies especially for service provision (Rubondo, 2014). However, local companies find it difficult to competitively participate in the oil and gas value chain as having low technological capacity, lack of funding from financial institutions, inadequate and incoherent policies/legislation; inadequate infrastructure; unfavourable business climate; and lack of partnerships between indigenous contractors and technically competent foreign companies (Wamono et al., 2012). It is a known fact that oil companies depend on massive outsourcing from the non-oil sector (predominantly international corporations). Such a strategic shift leads to oil companies have numerous suppliers and contractors with different hierarchy and supply chains (Heum et al., 2011). This has also resulted in an undeniably shift on outsourcing strategies from a “tactical” perspective to a “strategic” perspective. The tactical outsourcing is the intention of solving practical problems aiming at attaining operations efficiency such as timeliness and a reasonably cheaper cost compared to if the outsourced activities had been carried out in-house. In contrast, strategic outsourcing is not driven by a problem-solving mentality, but it is adopted to align the company’s long-term strategies with the major aim of achieving certain strategic benefits e.g. gaining competitive advantages, improving core competences, repositioning of the organisation in the market, attaining a dramatic increase in share price, and so on.

One of the major pivotal competitive components of oil and gas companies in Uganda comes from their supply chains and a number of strategic outsourcing initiatives have been adopted in this area. However, there are no clear indicators of which internal organisational factors influence the decision to initiate strategic outsourcing projects. Also, there are now available reliable data to measure the success of these outsourcing initiatives. Berthiaume (2013) indicated that strategic outsourcing buyers make decisions on what to outsource based on their internal needs and goals and this highlights the importance of internal factors role in the day-to-day business outsourcing decision. This research therefore seeks to explore, and identify, the internal organisational factors that influence the decision of strategic outsourcing initiatives in the supply chains of the targeted oil and gas companies in Uganda.

Statement of the problem

Oil and gas price fluctuation forced oil companies to seek ways to cut costs but sustain similar, or better, levels of production and the quality of delivered service. The Ugandan oil and gas sector is relatively new and companies operating in this sector try to implement effective strategies that enable them sustain their position in the marketplace and to provide them with strong competitive advantages. Strategic outsourcing is seen as one of alternative strategies that companies should adopt. Given the fact that the Ugandan oil and gas sector is still growing; there are no research studies that have been conducted exploring potential organisational factors that influence the decisions to adopt strategic outsourcing within the supply chains and how best to implement and manage such initiatives. By exploring potential internal organisational factors that influence the adoption of strategic outsourcing in the supply chain; clients and vendors would benefit from understanding each other’s business

strategies and needs and thus engage in successful outsourcing projects. This research endeavour to answer the following three main questions:

- RQ1: What are the key potential internal organisational factors that may influence the adoption of strategic outsourcing in the supply chains of oil and gas companies in Uganda?
- RQ2: How do such factors influence the adoption of strategic outsourcing process?
- RQ3: How can these factors be better managed in order to improve the adoption of strategic outsourcing process?

This paper is structured in five main sections; the first section introduces the researched topic, problem statement, and the main research questions. The second part provides a review of relevant literature and the research gap. The third section presents the used research methodology and method, the design of the used data collection instrument, research sample, data analysis plan, and reliability and validity of the collected data. The fourth section includes results of the 23 used interview questions and discussions of the three main research questions based on the results. Finally, the fifth section highlights the main research conclusions, recommendations, practical and theoretical contributions, and suggestions for future research.

Literature Review

Organisational factors influencing strategic outsourcing adoption

As much as there are various reasons explored in trying to understand factors that influence outsourcing strategy both at strategic and tactical level, these factors according to Argyres, (1996) and Espino-Rodríguez & Rodríguez-Díaz (2008) have been generic in nature, and thus not providing clear specificity that would define demarcations on whether these factors were internal or external to organisational spectrums. Other works have explored the path of generic factors such as the need for the efficiency provided by other parties, search for specialised technology (Chen, Wang, & Wu, 2011), reduction of staffing level, cost reduction and exploring flexibility (Parmer, 2016; Koku, 2009). Espino-Rodríguez & Rodríguez-Díaz (2008) investigated the effects of internal and relational capabilities on outsourcing and concluded that internal capabilities affects the outsourcing decisions and outcome form such partnerships. However, the study came short of addressing the specific internal organisational factors that influence the adoption of strategic outsourcing within the mentioned internal capabilities and relational capabilities. Also, Gonzalez, Gasco, & Llopis, (2010) investigated the main reasons why firms adopt outsourcing of information technology but did not explore a wider scope to include more outsourced business functions and areas. Our research explores only those internal organisational factors that influence the adoption of strategic outsourcing in the supply chain of oil and gas major companies in Uganda.

Benefits and challenges of strategic outsourcing

Alina-Cristina & Anca (2015) reported that companies gain cost efficiency and the ability to concentrate on core competence when engaged in strategic outsourcing initiatives. Oshima et al., (2005) stated that strategic outsourcing allows companies to concentrate on core competencies and this reduces administrative tasks by 50% and increases strategic focus by 40%. Dinu (2015) pointed out that the prominent benefits from adopting strategic outsourcing strategies include; lower operational costs, accessing cheaper more skilled labour, risk apportioning, increased profitability, increased flexibility, concentrating on core activity. On the other hand, some associated challenges with the strategic outsourcing range from issues

such as; incompatibility with the vendor, threats to confidentiality, loss of managerial control, legal and regulatory risk, employee demotivation, and cultural differences.

Given the numerous efforts and research carried out by different authors in trying to assess factors that influence the adoption of strategic outsourcing, Alina-Cristina, & Anca (2015) state that companies decide to outsource in a pursuit of cost optimisation strategies, lack of internal resources, need for access to specialised skills, and the desire to attain competitiveness in the market. However, what is lacking is a clear demarcation of internal organisational factors and external factors. Different research has also taken different and diverse methodologies and approaches in addressing the same problem. For instance, Modarress, Ansari & Thies (2016) looked at issues influencing the adoption of strategic outsourcing in the supply chain of the oil and gas business in the Persian Gulf. This study can be used as a good reference because the research business in the targeted geographical area is mature compared to Ugandan oil and gas sector that is still growing. The study looked at potential challenges and motives that drive companies in the Persian Gulf to adopt strategic outsourcing strategies in their supply chain. Besides, strategic outsourcing according to Dinu (2015) looks at long term orientation to company strategic alignment and goals unlike generic outsourcing discussed by Modarress, Ansari, & Thies (2016) that is oriented towards achieving operations efficiency and cost saving majorly.

Strategic outsourcing in the oil and gas supply chain

Though there are few research that specifically addresses outsourcing in the oil and gas supply chain, for example, (Modarress, Ansari, & Thies, 2016) that explored “the challenges, risks, benefits and motives of why petroleum companies in the Persian Gulf employing outsourcing strategy in their supply chain”. Most of the research carried out address outsourcing factors in diverse industries such as textile industry (Sardar, Hae Lee, & Memon, 2016), manufacturing industry (Festel, De Nardo, & Simmen, 2014; Beaugency, Sakinç, & Talbot, 2015), aviation industry, Health care, etc. Oil and gas supply chain is much more complex compared to other industries (AlKazimi, & Grantham, 2015; Zavitsas, 2012) and this makes its operations to be regarded as high-velocity markets (Shuen, Feiler, & Teece, 2014). The research carried out in other industries might not be applicable to the oil and gas supply chain due to the unique complexity it possesses. Therefore; our research intends to address and examine if such a deviation might exist. Petroleum supply chain has been interchangeably used by many authors with oil and gas supply chain, but they mean the same thing. Different definitions of petroleum supply chain are found in the literature. For example, Shah, Li & Ierapetritou, (2011, p.1162) describe its components as “the exploration phase, crude oil procurement, storage logistics, transportation of the crude, refinery operations, distribution, and transportation of final products”, while Carneiro, Ribas, & Hamacher (2010) state that the two components of oil and gas industry i.e. upstream and downstream dictate the structure of petroleum supply chain. Such definitions do not differ much from Nnadili (2006, p.1) who defined the petroleum supply chain as “all logistical activities from feedstock of exploration and movement into refineries, to refining operations”. Based, on the different literature and definitions of petroleum supply chain, this research will consider all activities of upstream, midstream and downstream of the oil and gas industry that are often outsourced.

Within an organisation, strategic outsourcing has been looked at from the general organisational settings. Major strategic outsourcing research mainly focuses on information technology (Ferruzzi et al., 2011) and Human Resource segments (Susomrith & Brown, 2013). However, supply chain forms a great area of research interest since the literature

highlights that supply chain forms a great opportunity where cost reduction and achievement of competitiveness throughout the organisation can be achieved (Yucesan, 2007). Investigation into the internal organisational factors that influence the adoption of strategic outsourcing in the oil and gas supply chain has clearly been less explored. Given the fact that the oil and gas sector in Uganda is still growing, such a research becomes more promising because it is conducted in a developing country unlike in previous cases where similar studies were conducted on mature oil and gas industries with well-established upstream, midstream and downstream sectors.

Research Methodology and Method

Qualitative research methodology utilising a semi-structured interview was employed in this research. The selection of this research methodology was highly determined by the nature of the issue being investigated. This research attempts to understand, explore, and determine factors that impact the adoption of strategic outsourcing and thus, using a qualitative research is the most suitable methodology. This approach helps with assessing the collected qualitative data and arriving at appropriate results and conclusions without the need to use statistical analyses. The research takes a social constructionism stance, and this is consistent with a qualitative research methodology.

Interview instrument design

The interview instrument was designed to capture the major gist of the research objectives and to answer the three main research questions. The information that was collected was qualitative and exploratory in nature and this was a major guide in designing the interview instrument. The instrument consisted of 23 questions in total distributed on four parts. In addition to the General Information section that included (6 questions), the instrument included three main sections; 1) exploring what factoring impact the adoption of strategic outsourcing (8 questions), 2) exploring how these factors impact the adoption of strategic outsourcing (9 questions), and 3) investigating how best to manage internal organisational factors to improve strategic outsourcing adoption (5 questions).

The instrument consists mostly of open-ended questions with probing instructions. The application of open-ended question according to Brace (2008) ensures a greater level of consistency in case the interview is administered by a number of different interviewers, while at the same time providing a greater scope of responses that cannot easily be captured using other data collection methods. All the included questions have been asked in the same manner to all of the interviewees and the interview questions were developed taking into consideration that: the questions were straight forward to administer, the participants answered them without difficulties, the interview was not time-consuming, and keeping the participants interested in answering all the questions.

Research population, sample, and interview administration

The research targets a number of International Oil Companies (IOCs) and Oilfield Service Companies operating in Uganda. The research population was those employees who work for these companies and who were involved with the day-to-day business operations. The selected research sample includes participants from each company who were directly in charge of outsourcing decisions within the supply chain of the company and who were mostly serving at managerial positions working at departments such as: Procurement, Material and warehousing, Finance and Administration, Asset Management, Transport and Logistics, Human Resource, Engineering, the country Directors and operations staff. A total

of 104 interviewees was the sample size for this study. 62 respondents were interviewed from three International Oil Companies with an average of 20 respondents from each company. In addition, 42 respondents from four Oilfield Service Companies were interviewed with an average of 10 respondents from each company. For the purpose of anonymity, the targeted companies are referred to in this paper as; International Oil Company 1, 2, and 3, and Oilfield Service Companies 1, 2, 3, and 4.

Data analysis plan

Given the fact that this was a qualitative research; a “coding technique” has been used as a data analysis strategy. An interpretative phenomenological analysis (IPA) was used in this research as an analysis criterion and this was appropriate and very consistent with the utilised research methodology. This involved coding the collected data, categorising these codes into meaningful themes, and then presenting these themes in a table in order to achieve a more holistic view of the examined situation. Based on the identified main themes, a structure was designed to present the outcomes. The structure consisted of specific themes or timeline which enabled the researchers present the results and support the provided arguments with reference of quotes extracted from some of the respondents’ answers.

Reliability and validity

Reliability and validity test has been defined by many scholars in a number of ways (Badjadi, 2013). Borrowman (1999) argued that validity is about the connection between what a test claims to measure and what is actually measures. While on the other hand “reliability” is defined as “the degree to which test scores for a group of test takers are consistent over repeated applications of a measurement procedure and hence are inferred to be repeatable for an individual test taker” (Badjadi, 2013).

Reliability and validity are usually treated separately in quantitative studies but, in a qualitative research, these terms are normally combined in other terminologies that encompass both. Some commonly used terminologies include: credibility, transferability, and trustworthiness (Golafshani, 2003). The credibility of this research is strongly supported by a number of factors such as the relevant knowledge the selected interviewees had, the relevant work experience and job titles they also have, and the nature of used interview questions that directly relate to the three main themes of the study. Furthermore, the validity of the collected data can also be judged from the good number of interviewees who participated in this research which was 104. In addition to these factors, the quality of this research is related to generalisability of the results of this research can be easily generalised to similar business sectors in other geographical areas and to businesses that are involved in similar strategic outsourcing initiatives and this increases the validity or trustworthiness of the research.

Results and Discussion

General Information results

The background information of the respondents included age, gender, marital status, education level, company, period of service and the positions held. The core purpose of collecting the respondents’ background information was to help ascertain whether the sample characteristics were similar to those of the target population. In addition, this collected background information aimed at relating the variation of the key study findings with the

sample characteristics in order to make an informed opinion about the research findings. Details about respondents' demographic information are shown in Table 1.

Interview Question	Frequency (n=104)	Percentage
<i>Age group (years)</i>		
• 18 - 30	45	43%
• 31 - 40	37	36%
• 41 - 50	17	16%
• 51 or more	5	5%
<i>Gender</i>		
• Male	71	68%
• Female	33	32%
<i>Education level</i>		
• Postgraduate	42	40%
• Undergraduate	37	36%
• Certificate	14	13%
• Others e.g. 'A', 'O' levels, vocational	11	11%
<i>Company</i>		
• Oilfield Service Company 1	10	10%
• Oilfield Service Company 2	10	10%
• Oilfield Service Company 3	10	10%
• Oilfield Service Company 4	12	11%
• International Oil Company 1	21	20%
• International Oil Company 2	21	20%
• International Oil Company 3	20	19%
<i>Period of service (years)</i>		
• One year or less	25	24%
• 1 - 3	40	38%
• 3 - 5	14	13%
• 6 or more	25	24%
<i>Position</i>		
• Senior Manager	26	25%
• Middle Manager	27	26%
• Operational Manager	35	34%
• Other	16	15%

Table 1 General Information questions

Interview Part 1: determining internal organisational factors that influence the adoption of strategic outsourcing

This section of the interview was dedicated to exploring possible internal organisational factors that influence the decision to adopt strategic outsourcing within the supply chain management areas at the researched oil companies. As shown in Table 2, eight questions have been used under this section. In response to the first interview question, and as shown in Table 2, the respondents indicated that the top three factors influencing the adoption of strategic outsourcing as: "cost" (31%); "lack of internal technological capability" (25%); and "need to concentrate of core competence" (23%).

In responding to the second interview question, the respondents have mixed responses about the extent the adoption of strategic outsourcing in the supply chain is aligned with the organisation's strategic intent. Some respondents stated that there is a limited alignment

between the two. Examples of reported reasons why such lack of alignment exists include: different operations and conducted projects, the organisational structure of some companies may not favour the adoption of strategic outsourcing, outsourcing is not seen as a priority, and the outsourcing concept itself is still seen as a new venture for some companies. However, a good number of the respondents reported that strategic outsourcing adoption has been aligned with the organisation's supply chain management strategic intent and is seen as a tool to achieve some benefits for the company that include: sustaining long-term cost-effective benefits, reduction of unnecessary bureaucracies, better production and service quality, meeting organisational objectives more effectively, and better suppliers' relationships and management.

As shown in Table 2, when the respondents answered the third interview question, 63% agreed that the major driver to the adoption of strategic outsourcing in the supply chain is to put emphasis on the core competence of their companies as this allows them to focus on their usual and core activities and outsource non-strategic activities. Some reasons for such approach included: *"it is because outsourcing involves different production skills and knowledge"* (Oilfield Service Company 2); *"focus on core competence leads to better and improved products and services to be produced"* (International Oil Company 2); *"because some minor distractions brought by some minor activities like payroll may affect the company's growth and therefore strategic outsourcing helps us to focus on the core ones"* . . . *"improves performance and saves time"* (International Oil Company 3); *"strategic outsourcing allows the company time to concentrate on core competence by outsourcing non-core services"* (Oilfield Service Company 1); *"it enables the organization to focus on the field where it has lots of expertise"* (International Oil Company 1); *"some activities are not in the mainstream core of the company therefore strategic outsourcing helps us to focus on the core ones"* (Oilfield Service Company 4).

As shown in Table 2, when respondents answered the fourth interview question, 50% agreed that the existence of cost saving opportunity led to the adoption of strategic outsourcing in the supply chain of their companies. Some of the provided explanations about this agreement included: *"reducing on costs of production is always the major target for companies"* (International Oil Company 3); *"making lesser expenses and later more profits"* (Oilfield Service Company 1); *"usually we outsource to vendors that specialize in a given function and performs that function more efficiently than the company so as to save costs"* (Oilfield Service Company 3); *"some processes are expensive to set up and run effective thus the desire to strategically outsource them"* (International Oil Company 1); *"some services/processes are cheap to acquire by way of strategic outsourcing"* (Oilfield Service Company 2); *"setting up some functions in the companies is costly compared to outsourcing the function"* (International Oil Company 1); *"strategic outsourcing reduces costs in the long term"* (Oilfield Service Company 4).

Interview Question	Frequency (n=104)	Percentage
1. What is the major internal organisational factor influencing your decision to strategically outsource some of your supply chain activities? (Tick the most appropriate).		
• Cost	32	31.0%
• Need to concentrate on core competence	24	23.0%

Interview Question	Frequency (n=104)	Percentage
<ul style="list-style-type: none"> • Improve monitoring and reporting capabilities • Lack of internal technological capability • Others (Please indicate) • Combination 	<p>8</p> <p>26</p> <p>3</p> <p>11</p>	<p>8.0%</p> <p>25.0%</p> <p>3.0%</p> <p>11.0%</p>
2. To what extent is the adoption of strategic outsourcing in your supply chain aligned with the organization's strategic intent?		
3. Is the need to concentrate on core competence a major driver to the adoption of strategic outsourcing in the supply chain of the major Ugandan oil and gas stakeholders?		
<ul style="list-style-type: none"> • Yes • No • If yes, explain 	<p>66</p> <p>38</p>	<p>63.0%</p> <p>37.0%</p>
4. Has the existence of cost saving opportunity led to the adoption of strategic outsourcing in the supply chain of your company?		
<ul style="list-style-type: none"> • Yes • No • If yes, explain 	<p>52</p> <p>52</p>	<p>50.0%</p> <p>50.0%</p>
5. Have the levels of control influenced the adoption of strategic outsourcing in the Ugandan oil and gas sector?		
<ul style="list-style-type: none"> • Yes • No • If yes, explain 	<p>76</p> <p>24</p>	<p>79.0%</p> <p>25.0%</p>
6. Do you think inadequate internal staff skills and expertise has been a call for the adoption of strategic outsourcing in the company's supply chain?		
<ul style="list-style-type: none"> • Yes • No • If yes, explain 	<p>60</p> <p>44</p>	<p>58.0%</p> <p>42.0%</p>
7. Does the lack of internal technological innovation influence the adoption of strategic outsourcing in the supply chain of your company?		
<ul style="list-style-type: none"> • Yes • No • If yes, explain 	<p>60</p> <p>44</p>	<p>58.0%</p> <p>42.0%</p>
8. What are other internal organisational factors that have led to the adoption of strategic outsourcing in your company?		

Table 2 Used interview questions to explore internal organisational factors that influence the adoption of strategic outsourcing

In response to the fifth interview questions, and as shown in Table 2, 76% of the respondents reported that levels of control have influenced the strategic outsourcing adoption. Examples of why respondents have supported this statement included: *“re-staffing has been ventured into leading to strategic outsourcing”* (Oilfield Service Company 1); *“change in reporting and supervision cycle”* (International Oil Company 3); *“leadership and management levels determine whether or not to adopt strategic outsourcing”* (Oilfield Service Company 3); *“strategic outsourcing allows managers to leverage their staff skills and company resources”* (Oilfield Service Company 4); *“even after outsourcing the company needs some level of control in order to ensure quality control”* (Oilfield Service Company 2); *“some activities need full control if they are strategic just to ensure the implementing partner does not deviate”* (International Oil Company 1).

In response to the sixth interview questions, and as shown in Table 2, 58% of the respondents thought that inadequate internal staff skills and expertise has been a call for the adoption of strategic outsourcing in the company’s supply chain. The sector requires a lot of specialisation and a wide range of technical capabilities that may seem absent and costly at the time of need in companies. Also, since the oil and gas industry in Uganda is still a new sector, there is a gap to fill in terms of expertise and skills relevant to the needs and demands thereof. Examples of views from the respondents who supported the theme of this interview question included: *“inadequate internal staff skills and expertise limits production and development hence the need for outsourcing to enhance development and production”* (International Oil Company 2); *“since oil is just a fresh venture in Uganda, we lack internal skilled staff to carry out the roles and therefore strategic outsourcing is there to fill the gap”* (Oilfield Service Company 3); *“with the increasing technological advancement more skilled expertise is required thus strategic outsourcing”* (International Oil Company 1); *“highly skilled manpower with the required competence and experience has led to strategic outsourcing”* (Oilfield Service Company 1) *“some services are not carried out in the organization and so require strategic outsourcing”* (International Oil Company 3); *“some activities are outsourced when there is a skill gap internally”* (Oilfield Service Company 2).

As shown in Table 2, when respondents answered the seventh interview question, 58% asserted that the lack of internal technological innovation in the supply chain has immensely influenced the adoption of strategic outsourcing. Some of the respondents who supported this statement have provided these views: *“there are some activities that need close control and cannot just be outsourced to only achieve other objectives without strategic alignment”* (International Oil Company 3); *“due to lack of internal technological innovations, production skills and knowledge is low hence adoption of strategic outsourcing”* (Oilfield Service Company 2); *“use of outdated production limits the supply hence limited flow of supply chain”* (Oilfield Service Company 1); *“internal technological innovation leads to update of the production of the company”* (International Oil Company 2); *“oil and gas extraction require modern, sophisticated technology and our country lacks such technologies at the moment and therefore there is need for strategic outsourcing”* (Oilfield Service Company 3).

As shown in Table 2, when respondents answered the eighth interview question, a number of further factors have been identified including: less number of employees, acquisition of advanced technology, skills acquisition from outside contractors, inadequate resources to use in running organisation’s processes, need for internal expertise knowledge, inadequate skilled personnel; tap internally unavailable resources from outside the firm; high taxes, excessive government mandates and the need to reduce risk, ensure flexibility, boost morale and achievement of both technological and managerial knowledge. Also, failure to meet

organisational targets in production in which much is spent with less gains; timely execution of organisational tasks; ensure job creation. The need to reduce liability was also revealed and the need to hire or acquire a service for a short-time but outsourced for some urgent but temporary services. Customer retention and satisfaction were part of the equation as well as extending the market search. Profit maximisation was also found to be another attribute and also saving time. The desire to fully utilise the available resources and the need to expedite the hands-on work experience among the workers were also identified as factors influencing adoption of strategic outsourcing.

Interview Part 2: how these organisational factors influence the adoption of strategic outsourcing

The second part of the interview was designed to examine who the highlighted factors in part 01 influence the decision to adopt strategic outsourcing. This part consists of nine questions. As shown in Table 3, when respondents answered the ninth interview question, 26% asserted they strongly agreed, and 60% agreed, that adopting strategic outsourcing within companies' supply chains in the Ugandan oil and gas sector positively impacts the quality of delivered service.

As shown in Table 3, when respondents answered the tenth interview question, a number of views have been expressed about the impact of strategic outsourcing on the delivered service based on the respondents' opinions. Examples of some provided impacts include: better products and services delivery times; production innovations and improved production skills; easy access to better production capabilities; creation of jobs outside the company; enhancing production efficiency; and the possibility of skills transfer. Also, low production costs and more profitability with wider market access created by courtesy of involvement of many other players. This provides more employment opportunities to the local people whose orientation is a broad spectrum of specialisation which reduces the operational costs in the oil and gas sector. The timeliness of products and services delivery has improved through the deployment of the right personnel in the right positions. Tapping and utilising technological platforms has had a positive impact on the delivered services that led to reducing the costs of operations.

Interview Question	Frequency (n=104)	Percentage
9. There is a relationship between strategic outsourcing and the quality of delivered service in the Ugandan oil and gas sector		
• Strongly agree	27	26.0%
• Agree	60	58.0%
• Neutral	7	7.0%
• Disagree	7	7.0%
• Strongly disagree	3	3.0%
10. What impact has strategic outsourcing had on the service delivery of the Ugandan oil and gas sector?		
11. What value do you think strategic outsourcing has really created?		
12. Strategic outsourcing enhances customer satisfaction		
• Strongly agree	28	27.0%
• Agree	63	60.0%
• Neutral	9	9.0%

Interview Question	Frequency (n=104)	Percentage
• Disagree	4	4.0%
• Strongly disagree	0	0%

Table 3 Used interview questions to determine how internal organisational factors influence the adoption of strategic outsourcing

As shown in Table 3, when respondents answered the eleventh interview question about the values strategic outsourcing has created, the two top reported created values were; “improved production quality and efficiency” and “acquiring of production skills in supply chains”. Such improvements are gained through the access to skilled contractors and the use of advanced technological platforms. The strategic outsourcing ensures that a collaborative work environment prevails based on the use of advanced technology, skillsets, and experience of the contractor which saves time and costs required to execute supply chain activities in the oil and gas industry. At (International Oil Company 1), one respondent stated that “*unity with other oil producing companies is enhanced*” as a benefit from the adoption of a strategic outsourcing. The adoption of strategic outsourcing, allows the vendors to carefully assess the best-suited clients in order to conduct business that leads to the highest levels of enhanced customer retention and improved vendor-client relationships.

As shown in Table 3, when respondents answered the twelfth interview question whether adopting strategic outsourcing enhances customer satisfaction, 27% asserted they strongly agreed, and 60% agreed, that adopting strategic outsourcing within companies’ supply chains in the Ugandan oil and gas sector positively improves customer satisfaction levels.

As shown in Table 4, when respondents answered the thirteenth interview question about how the adoption of strategic outsourcing enhances competitive advantage, it was revealed that being competitive in the oil and gas sector requires lots of efforts as a result of the vibrant supply chain whose value has been heightened by the phenomenon of strategic outsourcing in the Ugandan oil and gas sector. The improved products and services, as a result of utilising outsourced technologies, were found to be among the leading sources of competitiveness in the sector. The use of such advanced technologies has ensured a synchronised way of operation which is both quick and cost effective. Another factor that has provided more competitive advantages to the outsourcing companies was the timely delivery of products and services by contractors in the supply chain. Furthermore, the use advanced technology platforms allow more professional collaborations between different stakeholders including suppliers and customers. Such collaboration provides valuable feedback from customers and access to necessary missing expertise and skills to handle the non-core elements of the organisation thus improving its competitiveness capabilities. The shift and minimisation of risk as a result of acquiring products and services through strategic outsourcing has brought skilled and competent parties to execute the supply chain activities on behalf of the organisations allowing them to put emphasis on the key core activities in the firm. The accrued high-quality services offered as a result of strategic outsourcing has improved the overall competitiveness of the Ugandan oil and gas industry.

As shown in Table 4, when respondents answered the fourteenth interview question, pinions from respondents reveal that customer satisfaction was among the main objectives of the adoption of strategic outsourcing in the oil and gas sector in Uganda. It has been found out that majority of respondents expressed that the improved quality of products and services in the Ugandan oil and gas sector was a major factor for customer satisfaction as a result of the

adoption of strategic outsourcing. However, some respondents stated that the industry is still growing and thus a wide customer-base has not been built yet but, in general, the efficient and effective delivery of services has led to better customer satisfaction rates in the Ugandan oil and gas sector courtesy of strategic outsourcing. Another factor that has led to an improved customer/client satisfaction is the anticipated provided outsourced services low prices that attract more clients. Also, since strategic outsourcing come with more technological innovations, clients are served in a timely manner with all the needed attributes geared towards enhancing the customer satisfaction in the supply chain. Furthermore, because more focus on organisational core functions has led to improved products and services, the customer satisfaction among the stakeholders in the Ugandan oil and gas sector has improved. Strategic outsourcing has led to a reduction in the costs of production which will ultimately reduce the prices of products and services in the oil and gas sector supply chain. The adoption of strategic outsourcing assures good service delivery hence leads to an overall improved customer satisfaction in the supply chain.

Interview Question	Frequency (n=104)	Percentage
13. How has the adoption of strategic outsourcing enhanced competitive advantage in the Ugandan oil and gas sector?		
14. To what extent has strategic outsourcing influenced customer satisfaction in the Ugandan oil and gas sector?		
15. Do you think strategic outsourcing has had a bearing on customer retention in the Ugandan oil and gas sector?		
• Yes	39	38.0%
• No	65	62.0%
• If yes, explain		
16. Strategic outsourcing is a way to expedite technological advancement as well as encouraging innovativeness.		
• Strongly agree	17	16.0%
• Agree	72	69.0%
• Neutral	10	10.0%
• Disagree	2	2.0%
• Strongly disagree	3	3.0%
17. What are the other possible influences of strategic outsourcing ventures in Ugandan company structures, culture and staff's attitude?		

Table 3 Used interview questions to determine how internal organisational factors influence the adoption of strategic outsourcing

As shown in Table 4, when respondents answered the fifteenth interview question, 62% revealed that strategic outsourcing has not yet enhanced customer retention levels. This was explained that since the oil and gas sector is still a new industry in Uganda, it has not yet been assessed and therefore customer retention has not been a main focus. 38% who positively acknowledged the examined theme in this question argued as follows: *“it allows the company to concentrate on core activities and thus delivery to customers”* (Oilfield Service Company 1); *“better produced goods and services will lead to retention of*

customers” (Oilfield Service Company 3); *“providers are specialized in a particular field, may know all the details hence leading to customer satisfaction”* (International Oil Company 1); *“satisfied customers will make repetitive offers and outsourcing improves service delivery”* (International Oil Company 3); *“good services provided have led to customer retention”* (Oilfield Service Company 4); *“retention is achieved as satisfaction level increased”* (Oilfield Service Company 2).

As shown in Table 4, when respondents answered the sixteenth interview question about if they agree that strategic outsourcing is a way to expedite technological advancement as well as encouraging innovativeness, 16% strongly agreed, and 69% agreed, that when companies adopt strategic outsourcing they get access to advanced technology platforms and this would encourage innovation.

As shown in Table 4, when respondents answered the seventeenth interview question, it was revealed that there were other possible influences of strategic outsourcing ventures in Ugandan company structures, cultures and staff attitudes. These include; coordination of work being made easy, boosting employees’ morals, advancement of technology and innovation of processes. On boosting employee morale, respondents asserted that the improvement of the technology base would make work easier. The technological changes were anticipated to boost morale thus productivity in the oil and gas sector. Compliance with international standards was yet another influence of the strategic outsourcing ventures in Uganda so as to match those as exhibited internationally. The prevailing government policies and education levels among the stakeholders have also been possible influences of the adoption of strategic outsourcing. Most Ugandan company structures, cultures and staff attitudes are mostly negative towards long-term strategic outsourcing adoption. Its adoption has led to restructuring in Ugandan companies with highlights of transfer of skills to permanent staff engaged in the execution of strategic outsourcing. However, it has led to a change in work processes which has had a strong impact on staff attitudes although professionalism among staff is heightened with strategic outsourcing. Organisational politics involved in the company operations is also another influence of strategic outsourcing ventures in Ugandan company structures, cultures and staff attitude. Ultimately, strategic outsourcing comes with a process of restructuring of company processes, procedures and regulations.

Interview Part 3: Best ways to manage internal organisational factors to improve strategic outsourcing adoption

This part of the interview was designed to explore ways to manage internal organisational factors to improve the adoption of strategic outsourcing. Six questions have been used in this part.

As shown in Table 5, when respondents answered the eighteenth interview question, 51% affirmed that integrating strategic outsourcing activities into the supply chain is not a derivation of competitive advantage in the Ugandan oil and gas sector. With a minimum difference of two, 49% affirmed and supported that the integration of strategic outsourcing does indeed enhance competitive advantage in the Ugandan oil and gas sector. In support of this notion were some views as advanced by a selected number of subjects including the following: *“all services outsourced are normally quality guaranteed”* (Oilfield Service Company 4); *“gives company time to select the best quality suppliers”* (International Oil Company 1); *“because of the value added to the services”* (International Oil Company 2);

“good services provided lead to competitive advantage” (Oilfield Service Company 3); *“companies. with strategic outsourcing approach are most likely to gain long term relationships and competitiveness with less operations costs”* (International Oil Company 3); *“it encourages a more integrated supply chain and better coordination”* (Oilfield Service Company 2).

As shown in Table 5, when respondents answered the nineteenth interview question about the extent training of permanent staff about the use of new technologies a key in the adoption of strategic outsourcing, that majority of the respondents’ opinions indicated the importance of training staff which would improve the quality of production in both the long and short runs thus improving the overall organisational performance. The purpose of training permanent staff about new technologies has been a precondition to the adoption of strategic outsourcing in many Ugandan oil and gas companies. This vice was aimed at ensuring that staff acquire excellent and up-to-date skills and knowledge about the application and usage of the new technologies. The majority of respondent have also asserted that the adoption of strategic outsourcing has called for training of permanent staff within supply chains. Integration with teams at the vendor(s) side to execute a given function is a form of training to the permanent staff which passes important skills to them and ensures consistency in production in the Ugandan oil and gas industry. Adoption of strategic outsourcing requires training permanent staff so as to update and learn new technology applications for improved production thus quality service delivery in the oil and gas sector and this increases the confidence among permanent staff calls for capacity building which build their abilities to comfortably apply strategic outsourcing.

As shown in Table 5, when respondents answered the twentieth interview question, 54% expressed that alignment of internal organisation policies with the governmental policies may not necessarily improve the adoption of strategic outsourcing in the Ugandan oil and gas sector. Reaffirmation was coupled with sentiments like most companies engage in petty purchases and deal with small-scale suppliers especially the local ones whose orientation does not surpass an annual setting. However, 46% of the respondents supported the fact that aligning internal organisation policies with the governmental policies will eventually improve strategic outsourcing in the Ugandan oil and gas sector. Views expressed by a few selected subjects included: *“this reduces bureaucratic tendencies in approving programs”* (Oilfield Service Company 1); *“it will bridge the gap between government and the firms”* . . . *“there is need to abide by government laws without which it becomes hard to get licenses”* (International Oil Company 2); *“organisations must be in line with the laws and policies of the country or lest they can lose their operational licenses”* (International Oil Company 1); *“it helps organisations to easily fulfill government needs regarding outsourcing”* (Oilfield Service Company 2); *“it reduces on the irregularities”* . . . *“to increase on compliance”* (Oilfield Service Company 4).

Interview Question	Frequency (n=104)	Percentage
18. Do you think integrating strategic outsourcing activities into the supply chain can enhance competitive advantage in the Ugandan oil and gas sector?		
• Yes	51	49.0%
• No	53	51.0%
• If yes, explain		
19. To what extent does training of		

permanent staff about new technologies a key in the adoption of strategic outsourcing?		
20. Do you think aligning internal organisation's policy with government policy would be a good idea in improving strategic outsourcing in the Ugandan oil and gas sector?		
• Yes	48	46.0%
• No	56	54.0%
21. How have the new technologies influenced the adoption of strategic outsourcing?		
22. In what way is improving internal processes significant to the improved adoption of strategic outsourcing in the Ugandan oil and gas sector?		
23. Suggest other ways in which you think strategic outsourcing can be improved in the Ugandan oil and gas sector.		

Table 5 Used interview questions to explore best ways to manage internal organisational factors to improve strategic outsourcing adoption

As shown in Table 5, when respondents answered the twenty first interview question, it was revealed that access to new technologies have greatly influenced the decisions to adoption strategic outsourcing in the Ugandan oil and gas sector. Frequently mentioned was the ease to acquire highly qualified manpower to execute a diverse range of activities that many organisations lack the required knowledge and skills to undertake them, for example, drilling that requires external expertise. Also, skilled labour exists in the external business environments of the companies and outsourcing allows access to such skillsets which will narrows the gap of production knowledge among employees. Furthermore, the “digital world” has facilitated the adoption of strategic outsourcing through effective remote collaboration and delivery of outsourced services and functions. Also, increasing competition has led companies to acquire advanced technologies to improve the overall organisational performance. With the need to improve technology at a cheaper cost, it is a requirement to ensure strategic outsourcing is used so as to subsidise the costs. Also, the upgrade of existing technologies has led to the adoption of strategic outsourcing so as to achieve such services at a cheaper cost. Other functions linked to applications of new technologies like creativity, innovation, communication are also other benefits from the adoption of strategic outsourcing in the oil and gas sector.

As shown in Table 5, when respondents answered the twenty-second interview question, opinions have been shared on the fact that adoption of strategic outsourcing requires improvement of internal processes and most responses indicated the need to simplify the production processes in harmony with the organisational procedures. In the bid to improve internal processes, coordination is enhanced by integration of the different stakeholders. Therefore, improving internal processes facilitates a quick integration of outsourced processes. Accordingly, improving internal process also entails harmonising legal issues in line with the adoption of strategic outsourcing so as to avoid conflict with the regulations and procedures in the future. Also, building trust as a core value requires improving internal processes fit for strategic outsourcing in the oil and gas sector which will have a direct impact

on the organisational culture. Further, it was highlighted that sound internal processes creates a collaborative work environment which is a good habitat for strategic outsourcing in the Ugandan oil and gas sector. Successful execution of outsourced functions requires an alignment with the involved internal processes. Flexibility as an anomaly has been reported to be part of the framework that may incorporate strategic outsourcing in the internal processes of an organisation. As a way to promote compliance, respondents affirmed that improving internal processes call for the adoption of strategic outsourcing in the Ugandan oil and gas sector. Additionally, improving internal processes will entail streamlining reporting and supervision when strategic outsourcing is adopted. Therefore, the adoption of strategic outsourcing will lead to improved internal organisational processes and ultimately leads to more effective Ugandan oil and gas sector.

As shown in Table 5, when respondents answered the twenty-third interview question, the respondents shared diverse views on other ways of improving strategic outsourcing in the Ugandan oil and gas sector. It was frequently mentioned by that institutionalising government incentives like tax reduction would serve in the best interest of the Ugandan oil and gas sector. Also, merging firms to wholesomely carry out strategic outsourcing can serve to improve the phenomenon. It was further suggested that there is a need to reduce bureaucracies and improve on flexibility following clear procurement policies in the supply chain in order to improve the adoption of strategic outsourcing. Cost saving measures and improvement in working capital was also highlighted as another way of improving strategic outsourcing. Allocation of an adequate budget was cited as another way to improve strategic outsourcing in the Ugandan oil and gas sector. Some of the opinions given by the respondents include the following: *“merging of firms’ resources and improving on production processes”* (Oilfield Service Company 3); *“government should provide incentives to the oil and gas companies such as tax reduction, parliament should also amend clear laws of immigration”* (International Oil Company 2); *“training more local personnel in Uganda”* (Oilfield Service Company 2). *“monitoring the process of outsourcing”* (International Oil Company 3); *“ensure good leadership and management to successfully benefit from strategic outsourcing”* (Oilfield Service Company 4); *“advertisement, Supervision, Allocate adequate budget for the scheme”* (International Oil Company 1).

Discussion of main research questions

Research question one. A number of key factors influencing the adoption of strategic outsourcing have been highlighted in this research. For example; cost-savings motives, lack of internal technological capabilities, desire to concentrate on internal business core competences, and management/leadership levels of control. As a sustainability outreach plan, strategic outsourcing is required in the supply chain in bid to reduce supply chain uncertainties and the desire to manage supply chain risks through managing change in the long run. Furthermore, other highlighted factors were; the inadequacy in staff skills and expertise has called for strategic outsourcing to bridge the existing skillset gaps in the specialisation and a wide range of technical capabilities. Additionally, the lack of internal technological innovation and platforms in the oil and gas supply chain has been reported as one of the factors that influence the decision to adopt strategic outsourcing. Other reported factors include; less number of employees, acquisition of advanced technology, skills acquisition from outside contractors, inadequate materials to use in the production process; need for internal expertise knowledge, tap internally unavailable resources from outside the firm, leverage high energy costs, high taxes, excessive government mandates and the need to reduce risk, ensure flexibility, and boost morale and achievement of both technological and managerial knowledge. Such factors help companies decide to adopt different strategic

outsourcing initiatives to gain, and sustain, long-term benefits and the overall performance of the oil and gas sector in Uganda would improve.

Research question two. The results from this research revealed that adopting strategic outsourcing within supply chains would impact the business in many ways. For example, the majority of the interviewed respondents in this study stated that strategic outsourcing is essential for the quality of delivered service through more effective and expedited timeliness service deliveries. The successful implementation of strategic outsourcing would lead to; better delivery of products and services, high production capabilities, production innovations and improved production skills, efficiency in production, creation of jobs outside the company, expedition of the technological advances, and transfer of skills. Furthermore, it was revealed that strategic outsourcing improves the customer satisfaction with the benefit of timeliness and improved quality of products and services as a result of vibrant supply chain. However, given the fact that the Ugandan oil and gas sector is still growing, it has been found out that strategic outsourcing has not yet enhanced customer retention.

Furthermore, the adoption of strategic outsourcing can also lead to change in workplace cultures and staff attitudes including compliance with international standards and the prevailing government policies on oil and gas exploration, business restructuring, transfer of skills to permanent staff, and alignment to the national content. Therefore, strategic outsourcing serves as a means for continuous improvement, standardised quality processes, and management of strategic suppliers using scarce technologies.

Research question three. It was revealed in this study that integrating strategic outsourcing activities into the supply chain is not a derivation of competitive advantage in the Ugandan oil and gas sector because the sector is still growing. Benefits from strategic outsourcing are normally reaped in a long-term, but different competitive advantages could be gained earlier. It was revealed that training staff on new used technological platforms improves the quality of services and production in both long and short runs and this would ultimately improve the overall performance of the oil and gas sector in Uganda. It was also revealed that strategic outsourcing makes it easy to acquire highly qualified manpower to execute an assorted range of activities in the supply chain. Some functions like “drilling” requires specific skills, knowledge, and equipment that may not be available internally. Furthermore, it was highlighted that the adoption of strategic outsourcing requires improvement of internal processes of the companies outsourcing activities and functions because coordination is improved through the integration of certain operations between the clients and service providers. Finally, this study revealed that strategic outsourcing can be motivated further by the institutionalisation of certain government incentives such as; tax reduction regimes, merging of firms, reduction of bureaucracies, and allocation of adequate budget.

Conclusion and Recommendation

Conclusions

To determine the internal organisational factors that influence the adoption of strategic outsourcing by the major Ugandan oil and gas stakeholders in their supply chain, it is imperative to note that these factors have primarily focused on cost reduction strategies. In addition, the need to concentrate on business core competences and the lack of technological capabilities that impede quality production have also been reported as key factors impacting the decisions to adopt strategic outsourcing. Strategic outsourcing provides access to

efficiency provided by vendors with particular specifications in delivering specific services helps an organisation to maintain its position of delivering its core competences more efficiently. Although, the Ugandan oil and gas sector is still growing, some strategic outsourcing initiatives have already been adopted and this has triggered the need to improve certain internal business factors within companies' supply chains to maximise the benefits from such strategies.

One of the key findings' themes of this research was explaining how certain internal factors influence the adoption of strategic outsourcing within the supply chains of oil companies. With the varied experiences, expectations, and outcomes from strategic outsourcing adoption, the influence is reflected and expressed in the cost-effective measures. Also, the call for better quality service delivery has been a crucial element to internally drive the adoption of strategic outsourcing. For strategic outsourcing adoption to achieve long-term impacts on the supply chains, companies have accelerated the timeliness and effectiveness of the adoption of strategic outsourcing in Uganda. Production innovations and improved productivity skills are anticipated to create efficiency in the oil and gas processes in the supply chain. The need to transfer skills among staff as well as to create jobs outside the companies has been part of the internal organisational factors that have influenced the adoption of strategic outsourcing. More specifically, the adoption of strategic outsourcing leads to: acquisition of better products and services, improved production innovations, better production efficiency, and smoother transfer of knowledge amongst the key stakeholders.

To ensure that internal organisational factors are managed well for the purpose of improving the adoption of strategic outsourcing; it was proved that integration of strategic outsourcing activities into the supply chain may not directly derive competitiveness in the sector given its infancy state. Emphasis on capacity building in terms of training permanent staff about strategic outsourcing activities should have a great impact on improving the quality of services and production both in the short and long run and ultimately impacts the performance of the Ugandan oil and gas sector. Additionally, training permanent staff about the new used technological platforms has been reported as a driving force for the adoption of strategic outsourcing to be able to effectively utilise such technologies to improve production and supply chain management efficiency in the sector. In addition, it was revealed that the adoption of strategic outsourcing requires improvement of internal processes in order to have integrated and well-established supply chains to achieve long-term benefits for the entire sector. It was also implored that if the government provides incentives such as tax reduction regimes, adequate budget allocations, and reduced bureaucracies are institutionalised in the supply chain; strategic outsourcing would seemingly become easier to adopt.

Recommendations

As it has already been mentioned that the Ugandan oil and gas sector is still growing; it is recommended that companies working in this sector establish more supply chain integration to improve supply networks efficiency. This would lead to enhanced sales performance, more profitability, and better cost efficiency as a result of the expedition of strategic outsourcing. Through strategic outsourcing, both local and international companies and service providers should engage in long-term outsourcing initiatives to ensure long-term sustained cost reductions in the supply chains. Such integration would help companies expedite the benefits of strategic outsourcing in a coordinated and integrated manner. Furthermore, all the involved parties in the adopting of strategic outsourcing are recommended to coordinate effectively in order to ensure proper planning and implementation processes take place. This falls within the shared visions, mandates and responsibilities associated with the outsourcing process. It is

also recommended that training programmes are provided for permanent staff on aspects related to outsourcing practices and how to manage them. It is also strongly recommended that staff receive training on used technological platforms that service providers use so that managing outsourcing activities run smoothly. Finally, it is strongly recommended that clients and service providers assess their internal organisational environments in order to ensure no challenges arise when strategic outsourcing is actually adopted. This should also help with the process of identifying suitable services providers and the final selection of specialised suppliers.

Practical and theoretical contributions

The outcomes of this research can greatly benefit the participated companies, and other similar companies operating in the same targeted sector, by providing valuable insights about why strategic outsourcing should be adopted. The study highlighted a number of key benefits companies would gain when adopting strategic outsourcing. The study can also serve as a valuable guideline for concerned managers to help them effectively plan, implement, and manage strategic outsourcing initiatives. Furthermore, the study contributes to the pool of knowledge related to the domain of outsourcing and its management. The contribution that this research provides is unique because the targeted sector is relatively new and, to the authors' best knowledge; there have been no similar research studies conducted about outsourcing within the Ugandan oil and gas sector.

Limitations

The researchers faced some challenges with getting access to potential respondents because of limited financial resources to support the required travelling and setting up interview venues arrangements. Another challenge the authors faced during collecting the data for this research was not all of the approached respondents agreed to participate in the study and they stated either they were busy, not interested in the research, or were not sure if they were allowed to share such information. Finally, given the fact that the Ugandan oil and gas sector is still growing; getting responses to some questions was difficult.

Areas for further research

The study has revealed the need to work on capacity building through training and it was recommended as a precondition for the adoption of strategic outsourcing. Therefore, it is suggested that future research is conducted on exploring the potential impact of capacity building on the success of strategic outsourcing. It would also be interesting to examine the influence of the Ugandan government policies on the adoption of strategic outsourcing within supply chains. Additionally, another important area for further research would be to explore external factors that influence the adoption of strategic outsourcing in the supply chain. It should be noted that this research mainly focused on potential internal organisational factors impacting the adoption of strategic outsourcing but there are other external business factors that are likely to impact the process as well. These factors may include globalisation, government policy, natural occurrences, competitive strategies from rivals, and community cultural influence amongst others.

Acknowledgements

The authors would like to thank all participants who completed the survey for this research and provided their valuable insights. Also, the authors would like to thank the reviewers for their many helpful comments and suggestions on an earlier version of this paper.

References

- AlKazimi, M. A., & Grantham, K. (2015). Investigating new risk reduction and mitigation in the oil and gas industry. *Journal of Loss Prevention in the Process Industries*, 34, 196–208. <https://doi.org/10.1016/j.jlp.2015.02.003>
- Bacea, A. C., & Borza, A. (2015). Outsourcing: Why And Why Not? In *Proceedings of the International Management Conference*, 9(1), pp. 13–20. Faculty of Management, Academy of Economic Studies, Bucharest, Romania.
- Argyres, N. (1996). Evidence on the role of firm capabilities in vertical integration decisions. *Strategic Management Journal*, 17(2), 129–150. [https://doi.org/10.1002/\(SICI\)1097-0266\(199602\)17:2<129::AID-SMJ798>3.0.CO;2-H](https://doi.org/10.1002/(SICI)1097-0266(199602)17:2<129::AID-SMJ798>3.0.CO;2-H)
- Badjadi, NI (2013), Conceptualizing essay tests' reliability and validity: From research to theory. Available from: <http://files.eric.ed.gov/fulltext/ED542099.pdf> . (Accessed on 4 December 2016).
- Beaugency, A., Sakinç, M. E., & Talbot, D. (2015). Outsourcing of strategic resources and capabilities: opposing choices in the commercial aircraft manufacturing. *Journal of Knowledge Management*, 19(5), 912–931. <https://doi.org/10.1108/JKM-01-2015-0040>
- Berthiaume, D. (2013). The Three Types of Outsourcing Relationships. Available from: <http://www.nearshore.com/the-three-types-of-outsourcing-relationships> (Accessed on 8 July 2016)
- Borrowman, S. (1999). The trinity of portfolio placement: validity, reliability, and curriculum reform. *Journal of Writing Program Administration*, 1(2), 7–27.
- Brace, I., (2008). *Questionnaire design, 2nd edition*. Kogan Page London and Philadelphia
- Carneiro, M. C., Ribas, G. P., & Hamacher, S. (2010). Risk management in the oil supply chain: a CVaR approach. *Industrial & Engineering Chemistry Research*, 49(7), 3286–3294. <https://doi.org/10.1021/ie901265n>
- Chen, Y. H., Wang, T. C., & Wu, C. Y. (2011). Strategic decisions using the fuzzy PROMETHEE for IS outsourcing. *Expert Systems with Applications*, 38(10), 13216–13222.
- Dinu, A. M. (2015). The risks and benefits of outsourcing. *Knowledge Horizons Economics*, 7(2), 103–104.
- Espino-Rodriguez, T. F., & Rodriguez-Diaz, M. (2008). Effects of internal and relational capabilities on outsourcing: an integrated model. *Industrial Management & Data Systems*, 108(3), 328–345. <https://doi.org/10.1108/02635570810858750>
- Ferruzzi, M. A., Neto, M. S., Spers, E. E., & Ponchio, M. C. (2011). Reasons for outsourcing services in medium and large companies. *Brazilian Business Review (English Edition)*, 8(4), 44–66.
- Festel, G., De Nardo, M., & Simmen, T. (2014). Outsourcing of pharmaceutical Manufacturing – a strategic partner selection process. *Journal of Business Chemistry*, 11(3), 117–132.
- Golafshani, N., 2003. Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597–606.
- Gonzalez, R., Gasco, J., & Llopis, J. (2010). Information systems outsourcing reasons and risks: a new assessment. *Industrial Management & Data Systems*, 110(2), 284–303. <https://doi.org/10.1108/02635571011020359>
- Heum, P., Mwakali, J.A., Ekern, O.F., Byaruhanga, J.N., Koojo, C.A. and Bigirwenkya, N.K., 2011. Enhancing national participation in the oil and gas industry in Uganda.
- Koku, P. S. (2009). Consumer attitude toward outsourcing of technical support services: An exploratory study. *Services Marketing Quarterly*, 30(4), 315–332. <https://doi.org/10.1080/15332960903199067>

- Modarress, B., Ansari, A., & Thies, E. (2016). Outsourcing in the Persian Gulf petroleum supply chain. *Strategic Outsourcing: An International Journal*, 9(1), 2–21. <https://doi.org/10.1108/SO-08-2015-0019>
- Nnadili, B. N. (2006) Supply and demand planning for crude oil procurement in refineries. MS thesis, Massachusetts Institute of Technology, Cambridge.
- Oshima, M., Kao, T., & Tower, J. (2005). Achieving post-outsourcing success, *Human Resources Planning*, 28(2), 7–12.
- Parmer, LL (2016), The relationship between demographic profiles and attitudes regarding business outsourcing techniques and strategies, *Journal of International Business Disciplines*, 11(1), 1–19.
- Rubondo, E. (2014). Developments and investment opportunities in Uganda's Petroleum sector. UNCTAD OILGASMINE Special Event. 15–16 October 2014. Palais des Nations, Geneva. Available from: <http://unctad.org/meetings/en/Presentation/5-OILGASMINE%20Special%20Event%202015-16%20Oct%202014-RUBONDO-en.pdf>. Accessed on 12 September 2017.
- Sardar, S., Lee, Y. H., & Memon, M. S. (2016). A sustainable outsourcing strategy regarding cost, capacity flexibility, and risk in a textile supply chain. *Sustainability*, 8(3), 1–19. <https://doi.org/10.3390/su8030234>
- Shah, N. K., Li, Z., & Ierapetritou, M. G. (2010). Petroleum refining operations: key issues, advances, and opportunities. *Industrial & Engineering Chemistry Research*, 50(3), 1161–1170.
- Susomrith, P., & Brown, A. (2012). Motivations for HR outsourcing in Australia. *The International Journal of Human Resource Management*, 24(4), 704–720. <https://doi.org/10.1080/09585192.2012.697479>
- Twebaze, J., 2013. *The oil and gas industry in Uganda: employment trends, vocational education and training, and skills needed*. ILO.
- Yücesan, E. (2016). *Competitive supply chains: A value-based management perspective*. Springer.
- Wamono, R.N., Kikabi, P. and Mugisha, J., 2012. *Constraints and opportunities for SMEs investment in Uganda's oil and gas sector*. UIA.
- Zavitsas, K. (2012). *The vulnerability of the petroleum supply chain* (Doctoral dissertation, Imperial College London).

Corresponding author: Abubaker Haddud

Contact email: abubaker.haddud@online.liverpool.ac.uk