

## **THE IMPACT OF EFFECTIVE STRATEGIC SOURCING ON OPERATIONAL EFFICIENCY CASE OF KOMFO ANOKYE TEACHING HOSPITAL [KATH]**

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**ABSTRACT:** *This paper examined empirically the "impact of effective strategic sourcing on operational efficiency in healthcare delivery of Komfo Anokye Teaching Hospital (KATH). Exact survey-based research methodology was implemented to examine the research questions and Data was gathered utilizing three arrangements of polls regulated to 40 tolerant parental figures (medical caretakers, clinicians and specialists), 12 senior doctor's facility managers, and 13 procurement officers. The concentrate plainly exhibits that strategic sourcing assumes a key part in an association's business operations and puts more noteworthy accentuation on adding to the sourcing chief's business capability. Incessant stock outs of drugs were affirmed, the effects of which on medicinal services delivery went from death of patients, deterioration of restorative states of patients, clinic congestion, to exchange of patients to other healing facilities. These stock outs were credited to: disappointment by a 'legislature established supplier' to satisfy medication requests; delays by procurement staff; and withholding of funds by donors. It is therefore suggested that a strategic movement from single sourcing to strategic sourcing keeping in mind the end goal to guarantee efficiency in operations to turn away the determined medication stock outs openly doctor's facilities.*

**KEYWORD:** Operational Efficiency, KATH, Sourcing capability, Strategic sourcing, Performance, Sourcing, Supply chain management, procurement.

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### **INTRODUCTION**

Business relationship over the world are under growing weight than at some other time to stay ready and responsive in all their forceful edges (Arif Khan et al., 2008). The current overall business stadium has ended up being exceedingly forceful and power has transformed into a significant focus area of firms and associations over the globe (IMD, 2006; WEF, 2007; Pillania, 2007; Pillania, 2008). Such implies the disagreeable need and proposals on affiliation's operational efficiency. Operational efficiency is consistently described as the differentiation between business inputs and the ensuing yields of items and/or organizations (Michael, 2013).

For specialist's offices this would mean looking at the qualification between how wellbeing affiliations are sponsored with conventionally doled out funds, endowments and other wellsprings of non-institutional financing or otherwise, and the evident estimation of the usage of those funds, with spending on material resources, human capital and operational expenses that support the base (Michael, 2013).. Operational effectiveness consolidates, yet is not obliged to, efficiency. This furthermore plans to have the ability to show consistent change after some time by performing the same activities with a level of operational efficiency (Michael, 2013).

In like manner, near to more strategic getting, it has been said that the quick change of electronic-business (e-business) information advancement, especially electronic-procurement (e-procurement), can add to more effective securing methodology within the stock system

setting which reveals or bring to uncovered the impact of effective strategic sourcing on affiliations operational execution (Johnson and Whang, 2002; Smeltzer et al., 2003) portrayed strategic sourcing as a complete strategy of picking up inputs, and moreover supervising supplier relations, by fulfilling the affiliation's whole deal destinations.

Sislian and Satir (2000) described it as a packaging work that can help managers amid the time spent settling on obtaining decisions, considering high ground as a crucial part (Gottfredson et al., 2005). For purposes of this paper, Strategic Sourcing will be described as the method of surveying, selecting and acclimating to suppliers or consortiums of suppliers to achieve operational changes in moving of an affiliation's strategic objectives (Jin Su et al., 2012).

The expression Strategic Sourcing was wrote and is used when the activities of sourcing are particularly connected to a sourcing procedure. Strategic sourcing consolidates blend and coordination of an affiliation's differing abilities to the organization's strategic decision making level(Jin Su et al., 2012).one theme that dependably creates in strategic sourcing is the essentialness of qualified work power to support the sourcing method (Giunipero et al., 2006; Trent and Monczka, 2005; Handfield and Nichols, 2004).

Estimations demonstrate that in numerous countries, yearly advancement in recuperating office spending is surpassing spending arrangement and salary augmentations, as it were, in light of the uplifting in non-work costs. Research in an arrangement of organizations has shown that an organization's ability to get or keep up forcefulness should be enhanced by adding to a modern sourcing limit that is composed into the organization's strategic decision making technique (Dobrzykowski et al., 2010; Paulraj and Chen, 2007; Chen et al., 2004; Carr and Pearson, 2002).

Specialist's offices that have been productive in keeping their supply costs close as per their money related arrangements and salaries made their sourcing capacities and limits after some time as the materials dealt with by their procurement gatherings amplified. This sort of headway takes persevering work, attentive orchestrating, and unfaltering quality if the greatest limit of sourcing unimaginableness is to be refined. Sourcing costs identify with 40 to 80 percent of the cost of stock sold, and 30 to 50 percent of salaries – an extent that has stayed unfaltering in numerous business wanders for quite a while (Arif Khan et al., 2008). Associations surpassing desires in strategic sourcing extra right around 10 to 20 times as much as it costs to work their sourcing operations. It is assumed that upgrading the sourcing strategy is an essential component for accomplishment and high ground for associations. The effort required to reduce 10 percent of the sourcing cost is an awesome arrangement not precisely expanding relative measure of salary (Chopra and Meindl, 2003). Associations essential to take cognisance of the subject always fuse recuperating offices

## **LITERATURE REVIEW**

All through the next decade, healthcare spending worldwide will twofold to US\$15 trillion. On average, making countries will spent a normal 9.5 percent of Gross Domestic Product (GDP) on open and private healthcare in 2011, an addition from 8.8 percent in 2008 (Detlef et al., 2011). In the U.S., healthcare rose to 16 percent of GDP, up from 9 percent in 1980; it will rise to 20 percent before this present decade is over (Detlef et al., 2011). In the Middle East and North Africa (MENA) region, healthcare rose from 3 percent to 5 percent of GDP in 2008 and has been rising rapidly, creating a typical yearly rate of around 15 percent since 2005( Detlef

et al., 2011). Specialist's offices identify with the greatest cost a portion of national healthcare utilizations, and both therapeutic and non-remedial supplies speak to one of the greatest costs to centers. As mending focuses continue grasping immoderate development and changed drugs, their costs will likely continue increasing (Scott et al., 2010).

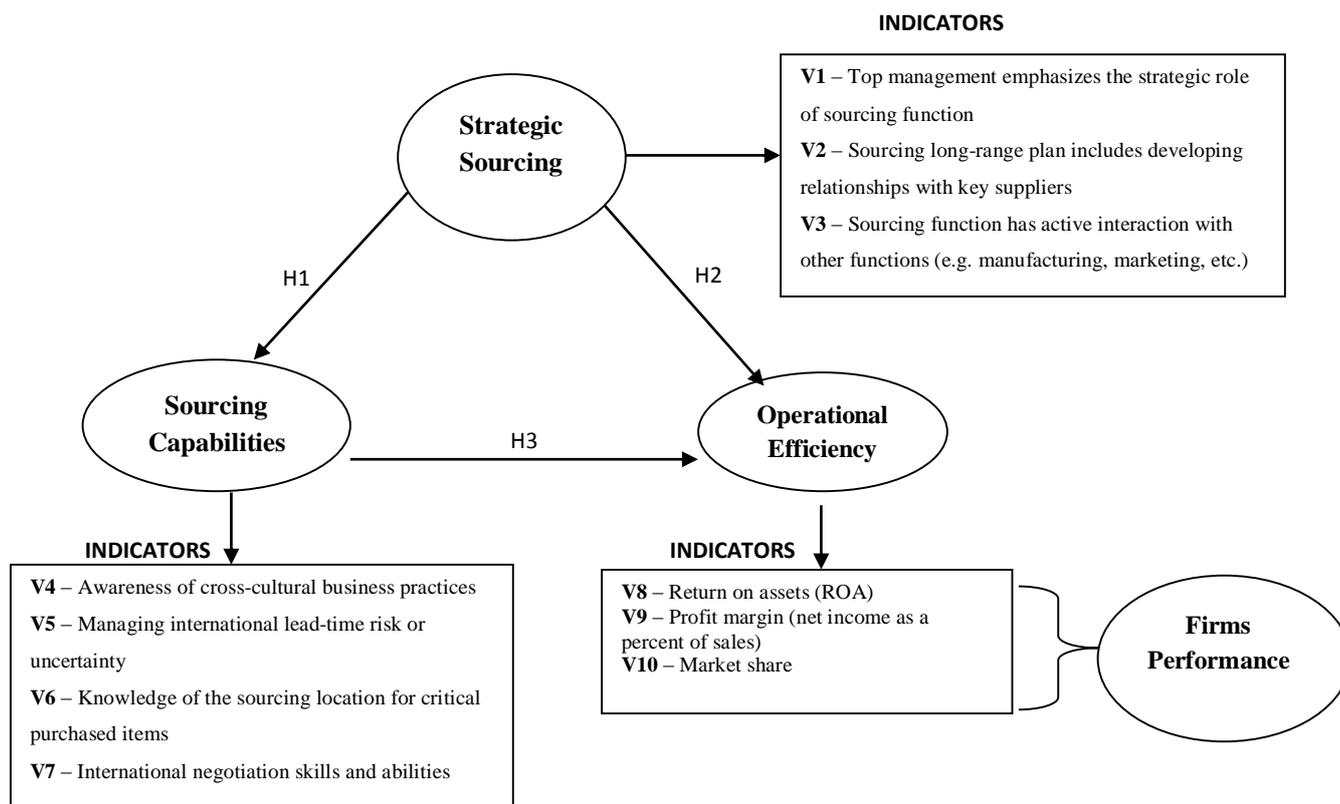
Komfo Anokye Teaching Hospital (KATH) is arranged in Kumasi, the Regional Capital of Ashanti Region with a total foreseen people of 4,780,380 (2000)(KATH, 2015). The land zone of the 1200-bed Komfo Anokye Teaching Hospital, the road arrangement of the country and business nature of Kumasi make the mending focus accessible to each one of the zones that give cutoff points to Ashanti Region and others that are further away(KATH, 2015). As needs be, referrals are gotten from all the northern districts (particularly, Northern, Upper East and Upper West Regions), Brong Ahafo, Central, Western, Eastern and parts of the Volta Regions (KATH, 2015).

This generous inflow of resilience gathering to Komfo Anokye Teaching Hospital to show signs of improvement, restorative administrations raises the issue of agreeable use of logistics and the impact of effective strategic sourcing on operational efficiency. As there have been issues of drug and logistics stock outs making crisis levels at KATH and in most open specialist's offices clearly in view of ineffective operational efficiency. The results may therefore unequivocally address the condition at that material point in time

Recognizing to source and discovering suppliers is for the most part essential, in any case it ends up being additionally confounding as the measure of uncommon rough materials, fixings, parts, portions, connectors, mechanical gathering, things, equipment, supplies, and organizations augmentation and the number of buyers incorporated into the decisions augment (Tim Duffie, 2005). For specialist's office chiefs, there is no charm shot to control these reviving costs. Nonetheless, successful specialist's office Strategic Sourcing (SS) can contain costs while improving nature of thought. It is assumed that better Procurement practices can lower supply costs radically, especially when the sourcing effort is stretched out to cover an extent of non-

standard things, including capital equipment, capital improvement Projects (new recuperating office advancement or genuine remodels), and high-slant clinical supplies (drugs, heart stents, and other things specialists regularly hold strong suppositions about) to clear up the perplexity, this research is advancing bits of learning into the perfect approach to manage obtaining (Scott et al., 2010). Routinely known as Strategic Sourcing, it begins the fundamental process and establishes the system for making quality through the purchasing technique. These among other component drive the need in doing this research.

Prioritically, the study goes for taking a gander at the associations among the impact of strategic sourcing, sourcing capability and firms operational efficiency by focusing on the KATH creation system.



**Figure 1: Conceptual Framework**

Source: Researchers conceptual framework on Hypothesis, base on Empirical studies of: Jin Su Vidyaranya and B. Gargeya, (2012), "Strategic sourcing, sourcing capability and firm performance."

**METHOD**

A survey instrument as an organized poll was outlined based on a perspective of related literature and meetings with professionals and scholastics. The things tapping the theoretical builds were produced based on a broad literature audit of the administrative and insightful literature to establish the substance legitimacy of every developed and related scales. Organizational Performance develop was measured by utilizing a scale created through specialists conclusion and literature survey (Kannabiran Bhaumik, 2005; Khan K et al.,2006a).

A five-point Likert scale is the instrument that fuses three developments: strategic sourcing, sourcing Capability, firms operational efficiency and firm execution The discoveries in the literature survey will be then contrasted with current state investigation of the Company so as to show signs of improvement wide photo of the genuine difficulties and the potential outcomes of change.

Information was gathered from three unique classes of staff to be specific patient guardians, clinic managers and procurement managers. A blend of quantitative and subjective information accumulation instruments was utilized. This included polls and meetings separately. Information was gathered through three arrangements of self finished surveys, which permitted

respondents to finish whenever it might suit them thereby minimizing interferences to healthcare delivery, the questions were centered around examining empirically the "impact of effective strategic sourcing, sourcing capacities on the operational efficiency in healthcare delivery of Komfo Anokye Teaching Hospital (KATH) .

Subsequent meetings with arbitrarily chose managers were additionally directed to acquire elucidation on any equivocal or repudiating results from the study. These meetings were semi-organized all together give both top to bottom and particular knowledge into the understanding, interpretation and talk of findings (Black, 2005). The first of the three polls was finished by staff that utilized or if nothing else took care of obtained medicinal supplies in conveying healthcare to the end client, the patient. The second poll was finished by procurement staff.

**Table 3.1a, Concepts Scale of Measures**

| <b>Constructs</b>                   | <b>Indicators</b>   |
|-------------------------------------|---|
| <b>Strategic sourcing</b>           | V1 – Top management of the company emphasizes the strategic role of sourcing function<br>V2 – Sourcing long-range plan includes developing relationships with key suppliers<br>V3 – Sourcing function has active interaction with other functions (e.g. manufacturing, marketing, etc.) |
| <b>Sourcing capability</b>          | V4 – Awareness of cross-cultural business practices<br>V5 – Managing international lead-time risk or uncertainty<br>V6 – Knowledge of the sourcing location for critical purchased items<br>V7 – International negotiation skills and abilities   |
| <b>Firms Operational Efficiency</b> | V8 – Return on assets (ROA)<br>V9 – Profit margin (net income as a percent of sales)<br>V10 – Market share  |

Where conceivable Specifically, the things of the strategic sourcing build were Determined utilizing a synthesis of the things received in before studies (Chen et al., 2004; Carr and Smeltzer, 2000), comprising of three Variables that address top management mindfulness and bolster, connections advancement with key suppliers, and sourcing dynamic association with other capacities. The measures of firm operational execution were based on past studies (Chen et al., 2004; Carr and Pearson, 2002; Tan et al., 2002; Carr and Smeltzer, 2000), including profit for resources, overall revenue and piece of the pie. Employing so as to source capability develop was measured Petersen et al's. (2000) scale of business capacities, including familiarity with culturally diverse business works on, overseeing global danger or instability, learning of sourcing areas, and universal transaction aptitudes and capacities. For instance, for operational execution measures, the headings educate the respondent to construct his/her answers in light of his/her company's execution in the course of the last three-year period utilizing a Likert scale (1 ¼ diminish fundamentally . . . 5 ¼ increment altogether).

## **FINDINGS**

Information test size (100) and gathering method took after Dillman's (2000) "custom-made survey methodology" to expand reaction rate. Stratified arbitrary testing which includes taking

an irregular example from identifiable gatherings (strata) that are homogenous for the craved characteristics'(Black, 2005) for example, individuals working in one healing facility ward or fitting in with the same calling, was utilized to circulate polls to patient parental figures and doctor's facility managers. For procurement staff, non-probabilistic purposive examining which includes hand picking respondents based on sought qualities (Black, 2005) was utilized to guarantee that just utilitarian heads took an interest. Information investigation and results Quantitative information was examined utilizing Statistical Packages for Social Sciences (SPSS) though the examination (Braun, 2006) was received for subjective information. Themes were recognized in printed information based on three criteria specifically repeat, reiteration and forcefulness (Keyton, 2006).The research empirically establishes the criticalness of procurement operation efficiency in healthcare delivery.

An aggregate 100 surveys were administered for both general specialists, doctor's facility patients and key managers who are predominantly chief of acquiring/sourcing out from which 85 polls were gathered speaking to a general reaction rate of 74.4%. Among patient guardians, 50 surveys were sent and 41 collected speaking to a reaction rate of 82% for general respondent. To healing center managers, 12 surveys were gathered out of the 20 conveyed giving a reaction rate of 60% for the general respondents. The reaction rate for procurement managers of key respondent was 93.4% with 13 out of 15 surveys gathered. The titles of the key respondents are for the most part executives of acquiring/sourcing (42.% ), VP of sourcing/obtaining, assembling, or logistics/operations (29.0%),CEO/president (12.5 percent), general supervisor (7.2 %), inventory network chief (3.3%), and purchaser/buying operators (5.9 %).

## RESULTS AND DISCUSSION

### Effects of stock outs because of ineffective operational efficiency

Impact 1: Stock outs cause passing of patients the outcomes beneath show solid understanding

Among patient guardians where 60.8% of respondents (firmly) concurred that stock outs of drugs because of ineffective operational efficiency created demise of patients; 10.5% of respondents were nonpartisan while the staying 2.9 % oppose this idea. On the subsequent impact of congestion, 63.5% firmly concurred, while 4.7% oppose this idea. By and large, the outcomes demonstrated the tremendousness of the degree to which the procurement operations, which must guarantee accessibility of drugs, influenced healthcare delivery.

**Table 5.1a The stock outs of drugs and other medical supplies affect patients in the following ways:**

|                                      | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Strongly Agree</b> |
|--------------------------------------|--------------------------|-----------------|----------------|--------------|-----------------------|
| Result in deaths of patients         | 0%                       | 2.9%            | 10.5%          | 25.8%        | 60.8%                 |
| Bring overcrowding in hospitals      | 2.9%                     | 4.7%            | 0%             | 28.9%        | 63.5%                 |
| Deterioration conditions of patients | 0%                       | 6.9%            | 4.9%           | 43.2%        | 50.9%                 |
| Delay Medical surgery/ operations    | 0%                       | 0%              | 11.6%          | 62.7%        | 30.7%                 |

### Causes of stock outs due to ineffective operational efficiency

Analysis of the results revealed wide disparities in the reasons given by various respondent categories with regard to the causes of the stock outs. While there was such great disparity, the results showed that nurses and clinicians, who together make up 95% of patient care givers. 35.9% strongly agreed to the cause of stock out due to Delays by procurement staff in buying, 35.6% agreed on the fact of Wrong demand forecasting, and 42.2% viewed it as Insufficient Inventory at Central Medical Stores (CMS). These revealed the fact that, there exist gaps in the operational efficiency of the hospitals.

**Table 5.2a. The following are the causes of stock outs of drugs at our hospital**

|  | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Don't Know</b> | <b>Agree</b> | <b>Strongly Agree</b> |
|--|--------------------------|-----------------|-------------------|--------------|-----------------------|
| Delays by procurement staff in buying                    | 11.7%                    | 20.4%           | 6.2%              | 25.8%        | 35.9%                 |
| Withholding of funds by donor partners                   | 4.5%                     | 9.9%            | 33.5%             | 26.3%        | 25.8%                 |
| Lack of funds at the hospital                            | 25.2%                    | 12.1            | 22.2%             | 24.3%        | 16.2%                 |
| Wrong demand forecasting                                 | 7.8%                     | 14.8            | 2.5%              | 39.3%        | 35.6%                 |
| Insufficient Inventory at Central Medical Stores (CMS)   | 4.5%                     | 2.6%            | 29.9%             | 20.8%        | 42.2%                 |
| Unexpected disease outbreaks                             | 23.4%                    | 30.1            | 16.3%             | 17.9%        | 14.3%                 |
| Poor communication between purchasing and pharmacy staff | 22.2%                    | 24%             | 22.4              | 15.1%        | 18.3%                 |
| Poor inventory management by pharmacy staff              | 18.3%                    | 42.9            | 16.5%             | 2.5%         | 20.8%                 |
| Unavailability of drugs at the market                    | 27.2%                    | 19.4            | 24.9%             | 13.4%        | 15.1%                 |

### Evaluation of the measurement model on impact of strategic sourcing on operational efficiency

Of the 15 returned surveys, 12 contained completed responses and were used in structural equation modelling (SEM). Confirmatory factor analysis (CFA) was conducted using the measurement portion of the model, to examine the relationship between the indicator variables and their respective underlying factors. Table 5.3 shows the correlation matrix and the descriptive statistics of the variables used in the Measurement model.

**Table 5.3a measurement model on impact of strategic sourcing on operational efficiency.**

| VAR  | V1          | V2      | V3      | V4      | V5      | V6    | V7      | V8    | V9    | V10   |
|------|-------------|---------|---------|---------|---------|-------|---------|-------|-------|-------|
| V1   | <b>1.00</b> |         |         |         |         |       |         |       |       |       |
| V2   | 0.622       | 1.000   |         |         |         |       |         |       |       |       |
| V3   | 0.419       | 0.391   | 1.000   |         |         |       |         |       |       |       |
| V4   | 0.286       | 0.184   | 0.243   | 1.000   |         |       |         |       |       |       |
| V5   | 0.116 *     | 0.144 * | 0.123 * | 0.471   | 1.000   |       |         |       |       |       |
| V6   | 0.250       | 0.270   | 0.134 * | 0.548   | 0.631   | 1.000 |         |       |       |       |
| V7   | 0.299       | 0.163   | 0.153 * | 0.632   | 0.479   | 0.624 | 1.000   |       |       |       |
| V8   | 0.309       | 0.233   | 0.203   | 0.165   | 0.213   | 0.267 | 0.157 * | 1.000 |       |       |
| V9   | 0.308       | 0.221   | 0.179   | 0.179   | 0.194   | 0.232 | 0.158 * | 0.821 | 1.000 |       |
| V10  | 0.276       | 0.278   | 0.175   | 0.108 * | 0.155 * | 0.178 | 0.137 * | 0.644 | 0.581 | 1.000 |
| Mean | 4.02        | 4.27    | 4.40    | 3.32    | 3.99    | 4.00  | 3.71    | 3.42  | 3.32  | 3.46  |
| SD   | 1.040       | 1.046   | 0.914   | 1.089   | 1.030   | 0.902 | 1.152   | 1.002 | 1.057 | 0.903 |

Notes: \*Indicates the correlation is not statistically significant at p , 0.05; Valid n=146

A satisfactory fit is accomplished for the measurement model (The  $\chi^2$  (32)  $\frac{1}{4}$  37.38, non-significant ( p  $\frac{1}{4}$  0.24); the root mean squared error of approximation (RMSEA)  $\frac{1}{4}$  0.034; the integrity of-fit index(GFI)  $\frac{1}{4}$  0.95; non-normed fit index (NNFI)  $\frac{1}{4}$  0.99; comparative fit index (CFI)  $\frac{1}{4}$  1.00]. In SEM, analysts are expected to report multiple measures of fit for surveying model fit (Hair et al., 2009).

All the fit records indicate a solid match for the measurement model. Demonstrates the factor loadings, standard errors, t-values, and the rundown of the examination of reliability in the measurement. As can be seen from, the t - values of all the path parameter estimates for every factor in the measurement model are greater than 2.0; therefore, all the path parameter estimates are statistically significant with p, 0.05.

Reliability for a composite trait or factor, considering the simultaneous error of the majority of the watched variables loading on that factor, is a consistency among the scales in their measurement for a latent construct. This gives a significant measurement model on the impact of strategic sourcing on operational efficiency.

### The structural model

The Table displays the fit records for the structural model. A satisfactory fit is accomplished for the structural model [The  $\chi^2$  (32)  $\frac{1}{4}$  37.38, non-significant ( p  $\frac{1}{4}$  0.24); the root mean squared error of approximation (RMSEA)  $\frac{1}{4}$  0.034; the integrity of-fit index (GFI)  $\frac{1}{4}$  0.95; non-normed fit index (NNFI)  $\frac{1}{4}$  0.99; comparative fit index (CFI)  $\frac{1}{4}$  1.00].

The Table demonstrates the results of structural equation modeling. There are two positive and statistically significant paths (strategic sourcing – sourcing capability; strategic sourcing – firm operational efficiency), and one positive but statistically non-significant path (sourcing capability – operational efficiency). The first hypothesis (H1), strategic sourcing positively prompts greater accentuation on sourcing capability, is supported (path coefficient  $\frac{1}{4}$  0.34, t  $\frac{1}{4}$  3.54, p, 0.05). The second hypothesis (H2), strategic sourcing positively affects firm operational efficiency, is supported (path coefficient  $\frac{1}{4}$  0.35, t  $\frac{1}{4}$  3.12, p, 0.05). The third hypothesis (H3), sourcing capability positively affects operational efficiency, was not strongly supported (path coefficient  $\frac{1}{4}$  0.20,

**Table 5.4a structural model**

| Fit indices for the measurement model               | Value                  | Recommended | Recommended               |
|---|------------------------|-------------|---------------------------|
|   | value                  |             | value                     |
| Chi-square (degree of freedom) [x2 (df)] ( p-value) | 37.38 (32) ( p = 0.24) |             | Non-sig p-value<br>≤ 0.10 |
| Root mean squared error of approximation (RMSEA)    | 0.034                  |             | ≤ 0.90                    |
| Goodness-of-fit index (GFI)                         | 0.95                   |             | ≤ 0.90                    |
| Normed fit index (NFI)                              | 0.96                   |             | ≤ 0.90                    |
| Nonnormed fit index (NNFI)                          | 0.99                   |             | ≤ 0.90                    |
| Comparative fit index (CFI)                         | 1.00                   |             | ≤ 0.90                    |

**Table 5.4b measurement model on driving indicators**

| Indicator variables and their underlying factors                             | Factor Loading | Standard Error | -values | R-square | Composite Reliability | Standardized reliability |
|--|----------------|----------------|---------|----------|-----------------------|--------------------------|
| <b>Strategic sourcing</b>  |                |                |         |          | 0.752                 | 0.746                    |
| V1   | 0.88           | 0.09           | 9.89    | 0.71     |                       |                          |
| V2   | 0.77           | 0.09           | 8.66    | 0.54     |                       |                          |
| V3   | 0.47           | 0.08           | 5.90    | 0.26     |                       |                          |
| <b>Sourcing capability</b>   |                |                |         |          | 0.840                 | 0.839                    |
| V4   | 0.79           | 0.08           | 9.37    | 0.52     |                       |                          |
| V5   | 0.71           | 0.08           | 8.79    | 0.47     |                       |                          |
| V6   | 0.74           | 0.07           | 1.15    | 0.68     |                       |                          |
| V7   | 0.89           | 0.09           | 10.29   | 0.60     |                       |                          |
| <b>Firm performance</b>  |                |                |         |          | 0.875                 | 0.874                    |
| V8   | 0.95           | 0.07           | 14.05   | 0.89     |                       |                          |
| V9   | 0.92           | 0.07           | 12.38   | 0.75     |                       |                          |
| V10  | 0.61           | 0.07           | 9.00    | 0.46     |                       |                          |
| Notes: All t-values are statistically significant at p , 0.05; Valid n ¼ 146 |                |                |         |          |                       |                          |

Where  $r$  is the normal unwavering quality coefficient figured over the watched measures and  $q$  is the quantity of measures stacking on the composite characteristic (DeVellis, 2003). As appeared in, all the dependability coefficients are over the edge 0.60 which DeVellis (2003) prescribed and the adequate rule 0.70 which Nunnally (1978) proposed. For every variable, all the t-estimations of the element loadings are measurably fundamentally unique in relation to zero, and every stacking is in the expected bearing and greatness. Along these lines, concurrent legitimacy is established subsequent to all indicators are effectively measuring the same construct. Segregate legitimacy is appeared by the certainty interim of two standard blunders around the relationship for each separate pair of elements. None of the certainty interim incorporate 1.0; therefore, discriminate validity was established seeing the table above. Thus, the measurement model is adequate for Testing the proposed structural model.

|  |                     |       |        |        |        |
|--|---------------------|-------|--------|--------|--------|
| Strategic material Sourcing                                  | Pearson Correlation | 389*  | 1      | .894** | .894** |
|  | Sig. (2-tailed)     | .005  | 51     | .161   | .000   |
|  | N                   | 51    |        | 51     | 51     |
| Operational Performance                                      | Pearson Correlation | .357* | .894** | 304*   | 1      |
|  | Sig. (2-tailed)     | .010  | .000   | .026   |        |
|  | N                   | 51    | 51     | 51     | 51     |
| **. Correlation is significant at the 0.01 level (2-tailed). |                     |       |        |        |        |
| *. Correlation is significant at the 0.05 level (2-tailed).  |                     |       |        |        |        |

**Figure 5.5a Correlation Matrix on Strategic Material Sourcing and Operational Performance**

### Relationship between Strategic Material Sourcing and Operational Performance

Relationship between Strategic Material Sourcing and Operational Performance Inferential investigation was directed to test hypothesis. In such manner, Karl Pearson Correlation was utilized to establish the way of relationship between the free variables and the reliant variable. Thusly, the p-qualities got shaped the premise for either tolerating or dismissing the Null Hypotheses. The outcomes were as per the following;

Strategic material sourcing had a r-estimation of .894 demonstrating a critical relationship between strategic material sourcing and operational execution. This was attractive to the second goal of the study. What's more, the relationship between strategic material sourcing at EABL and operational execution was certain. Therefore purchaser strategic material sourcing is positively related with operational execution at the company. This goal examined that Strategic material sourcing does not influence operational execution of assembling firms. The outcomes demonstrated a p-estimation of  $0.000 < 0.05$  prompting the dismissal of the invalid hypothesis and tolerating that strategic material sourcing altogether influences operational execution of assembling firms.

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The motivation behind this study is to research the impact of strategic sourcing on firms operational efficiency. The linkages between strategic sourcing, sourcing capability and firms operational efficiency and execution are deserving of research to the field of strategic management and operations management research. The outcomes exhibit the critical part that strategic sourcing plays in association's business operations.

There is measurably huge confirmation that backings the research hypothesis H1, indicating that strategic sourcing prompts more prominent accentuation on sourcing capability, including familiarity with diverse business rehearses, learning of the sourcing area for basic acquired things, universal arrangement aptitudes and capacities, and overseeing worldwide lead-time danger or vulnerability.

This study underpins past research which connects to the second hypothesis (H2) concerning strategic sourcing and its association with firm operational efficiency which prompts firms

execution was factually huge and emphatically connected . On the other hand, the third hypothesis (H3), The way in the model between sourcing capability and firm operational pledge which leads firms execution is sure, yet was not measurably noteworthy adept, 0.05 (way coefficient  $\frac{1}{4}$  0.20, t  $\frac{1}{4}$  1.67). There is some confirmation that sourcing capability has positive impact on firms operational efficiency and execution, however the proof was not sufficiently solid.

The study includes two revealing existing literature sourcing procedure that: i) single sourcing is not the right technique for healthcare delivery frameworks in light of the fact that it opens whole frameworks to the danger of supply disappointment (see likewise Khan and Barnes, 2007) that incapacitates the entire healthcare delivery store network bringing about various undesirable effects the most noticeably bad of which being demise of patients. An efficiency in double sourcing technique is therefore suggested in light of the fact that it guarantees that non-delivery by one supplier is secured by another. Such a system would fence open healing centers against the danger of stock outs emerging from components influencing one supplier (Tomlin, 2009). ii) Lengthy procurement cycles are not attractive for healthcare procurement in light of the fact that albeit such cycles urge organizations to hold adequate stock (Hou et al., 2010; Tetteh and Pharm, 2009) the nature and noteworthiness of healthcare delivery call for adaptability and responsiveness to spare lives (Mustaffa and Potter, 2009).

The study recommends that representatives ought to be prepared on strategic sourcing systems and ways to deal with upgrade operational execution through effective supplier relationship management. Thus option sourcing techniques ought to be detailed to encourage endeavors by organizations to advance their purchaser supplier connections focal procurement gathering is an essential for sourcing fabulousness. In the event that a healing facility as of now has such a gathering, its individuals focus amid this stage on upgrading their fundamental aptitudes and adding to the foundation they should extend their endeavors. A doctor's facility that needs focal procurement gathering must set one up and offer it some assistance with developing its abilities and foundation. To upgrade its aptitudes, the procurement gathering starts by enhancing its sourcing of "fundamental indirects," which extend from office supplies to arranging administrations, and of low-preference.

## REFERENCES

- Adjei, A.B. (2006), Message from the Chief Executive“ Public Procurement Board, June 2006. (online) Available at [www.ppbghana.org/story](http://www.ppbghana.org/story) accessed on 22.04.11).
- Arif Khan, K. R. and K. Pillania, (2008),"Strategic sourcing for supply chain agility and firms' performance", *Management Decision*, Vol. 46 Iss 10 pp. 1508 – 1530.
- Aronsson, H., Abrahamsson, M., and Spens, K (2011) ‘Developing lean and agile health care supply chains’. *Supply Chain Management: An International Journal*, Vol.16 (3).
- Barney, J. and Hesterly, W.S. (2010), *Strategic Management and Competitive Advantage: Concepts and Cases*, 3rd ed., Pearson-Prentice Hall, Upper Saddle River, NJ.
- Black, T. R., (2005), *Doing Quantitative Research in the Social Sciences: an Integrated Approach to Research Design, Measurement and Statistics*, London: Sage Publications.
- Bruce, M. and Daly, L. (2011), “Adding value: challenges for UK apparel supply chain management – a review”, *Production Planning & Control: The Management of Operations*, Vol. 22 No. 3, pp. 210-20.

- Caloghirou, Y., Protogerou, A., Spanos, Y. and Papagiannakis, L. (2004), "Industry-versus firm-specific effects on performance: contrasting SMEs and large-sized firms", *European Management Journal*, Vol. 22 No. 2, pp. 231-43.
- Carr, A.S. and Pearson, J.N. (2002), "The impact of purchasing and supplier involvement on strategic purchasing and its impact on firm's performance", *International Journal of Operations & Production Management*, Vol. 22 No. 9, pp. 1032-53.
- Carr, A.S. and Smeltzer, L.R. (2000), "An empirical study of the relationships among purchasing skills and strategic purchasing, financial performance, and supplier responsiveness", *Journal of Supply Chain Management*, Vol. 36 No. 3, pp. 40-54.
- Chen, I.J., Paulraj, A. and Lado, A.A. (2004), "Strategic purchasing, supply management, and firm performance", *Journal of Operations Management*, Vol. 22 No. 5, pp. 505-523.
- Chopra, S. and Meindl, P. (2003), *Supply Chain Management: Strategy, Planning, and Operation*, Pearson Publication, Delhi.
- Christopher, M., Peck, H. and Towill, D. (2006), "A taxonomy for selecting global supply chain strategies", *The International Journal of Logistics Management*, Vol. 17 No. 2, pp. 277-87.
- Collins, M. H., Hair Jr, J. F., & Rocco, T. S. (2009). The older-worker-younger-supervisor dyad: A test of the Reverse Pygmalion effect. *Human resource development quarterly*, 20(1), 21-41.
- Detlef Schwarting, Jad Bitar, Yash Arya & Thomas Pfeiffer, (2011), "The Transformative Hospital Supply Chain Balancing Costs with Quality", Booz & Company Inc., pp1- 10
- DeVellis, R.F. (2003), *Scale Development: Theory and Applications*, 2nd ed., Sage Publications,
- Dillman, D. (2000). *Constructing the questionnaire: Mail and internet surveys*. New York.
- Dobrzykowski, D.D., Tran, O. and Tarafdar, M. (2010), "Value co-creation and resource based perspectives for strategic sourcing", *Strategic Outsourcing: An International Journal*, Vol. 3 No. 2, pp. 106-27
- Duclos, L.K., Vokurka, R.J. and Lummus, R.R. (2003), "A conceptual model of supply chain flexibility", *Industrial Management & Data Systems*, Vol. 103 No. 6, pp. 446-56.
- Eisenhardt, K.M. and Martin, J.A. (2000), "Dynamic capabilities: what are they?", *Strategic Management Journal*, Vol. 21 Nos 10/11, pp. 1105-1121.
- Fawcett, S.E., Magnan, G.M. and McCarter, M.W. (2008), "Benefits, barriers, and bridges to effective supply chain management", *Supply Chain Management: An International Journal*, Vol. 13 No. 1, pp. 35-48.
- Giunipero, L.C., Hooker, R.E., Joseph-Matthews, S., Yoon, T.E. and Brudvig, S. (2008), "A decade of SCM literature: past, present and future implications", *Journal of Supply Chain Management*, Vol. 44 No. 4, pp. 66-86.
- Gonzalez-Benito, J. (2007), "A theory of purchasing's contribution to business performance", *Journal of Operations Management*, Vol. 25 No. 4, pp. 901-917.
- Gottfredson, M., Puryear, R. and Phillips, S. (2005), "Strategic sourcing: from periphery to the core", *Harvard Business Review*, Vol. 83 No. 2, pp. 132-9.
- Handfield, R.B. and Nichols, E.L. (2004), "Key issues in global supply base management", *Industrial Marketing Management*, Vol. 33 No. 1, pp. 29-35.
- Hernon, P. and Matthews, J.R. (2013), *Reflecting on the Future of Academic and Public Libraries*, ALA Editions, Chicago, IL.
- Hou, T., Wang, J., Li, Y., & Wang, W. (2010). Assessing the performance of the MM/PBSA and MM/GBSA methods. 1. The accuracy of binding free energy calculations based on molecular dynamics simulations. *Journal of chemical information and modeling*, 51(1), 69-82.

- IMD (2006), World Competitiveness Yearbook 2005, IMD, Geneva.
- Jin Su Vidyaranya B. Gargeya, (2012), "Strategic sourcing, sourcing capability and firm performance in the US textile and apparel industry", *Strategic Outsourcing: An International Journal*, Vol. 5 Iss 2 pp. 145 – 165.
- Johnson, M. and Whang, S. (2002), "E-business and supply chain management: an overview and framework", *Production and Operations Management*, Vol. 11 No. 4, pp. 413-423.
- Jöreskog, K. G., Sörbom, D., & Wallentin, F. Y. (2006). Latent variable scores and observational residuals. Retrieved June, 7, 2009.
- Kannabiran, G. and Bhaumik, S. (2005), "Corporate turnaround through effective supply chain management: the case of a leading jewellery manufacturer in India", *Supply Chain Management: An International Journal*, Vol. 10 No. 5, pp. 340-8.
- Keyton, J. (2006). *Communication research: Asking questions, finding answers*. New York: McGraw-Hill.
- Khan K, A., Srivastava, S.K. and Bakkappa, B. (2006), "Benchmarking and competency mapping at trim India Ltd: a case study", in Jaiswa and Garg (Eds), *Bridging Global Digital Business Divide*, Macmillan Publication, New Delhi.
- Kim., & Larsen Hepworth, D., Rooney, R., Rooney, G. D., Strom-Gottfried, , J. A. (2009). *Direct social work practice: Theory and skills*. Cengage Learning
- Kocabasoglu, C. and Suresh, N.C. (2006), "Strategic sourcing: an empirical investigation of the concept and its practices in US manufacturing firms", *Journal of Supply Chain Management*, Vol. 42 No. 2, pp. 4-16.
- Lao, Y., Hong, P. and Rao, S.S. (2010), "Supply management, supply flexibility and performance outcomes: an empirical investigation of manufacturing firms", *Journal of Supply Chain Management*, Vol. 46 No. 3, pp. 6-22.
- Michael A. Crumpton, (2013), "Building operational efficiencies", *The Bottom Line*, Vol. 26 Iss 1 pp. 21 - 24 (Michael, 2013)
- Mustaffa, N.H., and Potter, A., (2009) 'Healthcare supply chain management in Malaysia: a case study'. *Supply Chain Management: An International Journal* 14(3). pp234–243.
- Paulraj, A. and Chen, I.J. (2007), "Environmental uncertainty and strategic supply management: a resource dependence perspective and performance implications", *Journal of Supply Chain Management*, Vol. 43 No. 3, pp. 29-42.
- Petersen, K.J., Prayer, D.J. and Scannell, T.V. (2000), "An empirical investigation of global sourcing strategy effectiveness", *Journal of Supply Chain Management*, Vol. 36 No. 2, pp. 29-38.
- Scott. C et al., (2011) *Guide to Supply Chain Management*, Springer-Verlag Berlin Heidelberg.
- Spanos, Y.E. and Lioukas, S. (2001), "An examination into the causal logic of rent generation: contrasting Porter's competitive strategy framework and the resource-based perspective", *Strategic Management Journal*, Vol. 22 No. 10, pp. 907-34.
- Tachizawa, E.M. and Thomsen, C.G. (2007), "Drivers and sources of supply flexibility: an exploratory study", *International Journal of Operations & Production Management*, Vol. 27, pp. 1115-36.
- Tan, K.C., Kannan, V.R., Hsu, C.-C. and Leong, G.K. (2010), "Supply chain information and relational alignments: mediators of EDI on firm performance", *International Journal of Physical Distribution & Logistics Management*, Vol. 40 No. 5, pp. 377-94.
- Tan, K.C., Lyman, S.B. and Wisner, J.D. (2002), "Supply chain management: a strategic perspective", *International Journal of Operations & Production Management*, Vol. 22 No. 6, pp. 614-31.

- Tetteh, E. (2009). Creating reliable pharmaceutical distribution networks and supply chains in African countries: Implications for access to medicines. *Research in Social and Administrative Pharmacy*, 5(3), 286-297. Thousand Oaks, CA.
- Tim Duffie (2005) “Strategic Sourcing”: Building a Foundation for success – understanding the difference between Sourcing and strategic sourcing and its impact. a Principal at UPS Supply Chain Solutions on A UPS Supply Chain Solutions White Paper. pp. 2-5.
- Tomlin, B., & Roth, A. V. (2009). Outsourcing to a Powerful Contract Manufacturer: The Effect of Learning-by-Doing. *Production and Operations Management*, 18(5), 487-505.
- Trent, R.J. and Monczka, R.M. (2003), “Understanding integrated global sourcing”, *International Journal of Physical Distribution & Logistics Management*, Vol. 33 No. 7, pp. 607-29.
- Trent, R.J. and Monczka, R.M. (2005), “Achieving excellence in global sourcing”, *MIT Sloan Management Review*, Vol. 47 No. 1, pp. 24-32.
- US Census Bureau (2008), Foreign Trade Statistics, available at: [www.census.gov/foreign-trade/statistics/highlights/top/top0712.html#imports](http://www.census.gov/foreign-trade/statistics/highlights/top/top0712.html#imports) (accessed August 20, 2008).
- Van Weele, M , De Laat, & A. T. J. (2011). The 2010 Antarctic ozone hole: Observed reduction in ozone destruction by minor sudden stratospheric warmings. *Scientific reports*, 1.
- World Economic Forum (2007), *Global Competitiveness Report 2005-06*, Oxford University Press, New York, NY