

The Role of Strategic Procurement in Realization of Corporate Goal in the Public Universities: Case of Kwame Nkrumah University of Science and Technology [KNUST]

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Abstract

The objective of this study is to examine the interconnection between the parts of key procurement in acknowledgment of corporate objective of public Universities in Ghana. Corporate objective broadens; yet financial performance completely matters in measuring competitiveness of firms essentially in the present time. A cross sectional logical study was intended to distinguish KNUST procurement management hones and financial result. Findings of this study noticed a positive relationship between the vital procurement and financial performance of the Universities. For creating key procurement, the foundations ought to enhance the abilities in their purchasing professionals, count the vital procurement with general business procedure with long-term arrangements, select the potential and key suppliers, and make a decent relationship with them. These components could influence the company's financial performance and expand benefit.

Keywords: Procurement, financial performance, Strategic procurement, Corporate goal, KNUST

1. Introduction

Corporate objective differs starting with one then onto the next. Financial performance (profitability) has been a noteworthy trust in each business before their consumption incurrence. A few firms relinquish this need associated with immaterial monetary inflows (income) in respect to their surges (expenses) in the year. Consistently this may come about because of nonstrategic monetary payment including procurement by the management of different firms. The phenomena can be found in specifics with public organizations fusing KNUST-Ghana.

By and large management of the university tends to disregard the key importance of procurement. Their emphasis is on developing a market share through gigantic enlisted personnel, on the net result they recruit, train, and repay their work force obviously to satisfy center addressing and regulatory exercises: addressing, empowering research, gathering expense charges, purchasing and so on. It is an easy win however that no public University has ever done a spell in purchasing, which is appalling - in that it overlooks what the firm spends the most cash on without stopping for even a minute (Fis counseling 2012).

Strategic procurement can be drawn nearer from three principle measurements to be specific: Development and management of key suppliers, inside operation of procurement capacity and coordination of purchasing with different capacities inside of the firm, and endeavors to meet or surpass client desires. It is seen as one of the basic capacity of an Institution with the possibility to; spare expense, enhance operational efficiency, access to trusted suppliers, and enhance in nature of item or administration, sharing of best practices among others (Magnus, B. 2006). The representation of the vital procurement can be depicted in terms of its environment and structure, and what exercises occur in the supply interface. General performance pointers of the supply connect in terms of time, quality, adaptability and expense are utilized to measure efficiency and adequacy. The efficiency in the supply connection clarifies how well the resources are used. Since resources are scarce, it is to everybody's greatest advantage in the association to boost the use of the resources. The adequacy of the supply connection clarifies how well the targets are accomplished (Arun, K. what's more, Linet, O. 2005).

In today's competitive business environment, numerous organizations are attempting to discover better approaches to accomplish a competitive favorable position. Numerous progressions have happened to the viewpoints of organizations about the capacity of purchasing. Purchasing has initiated to assume a more noteworthy part in the methodology of the firm amid the previous couple of years. The late evolvement of purchasing extended from "buying" to "procurement" and after that to "supply management" has discovered a comparative developing significance and also supply chain management. The vital part of purchasing as an imperative contributor to the vital achievement of the organization is accepting upgraded consideration. The development far from the methods of insight of large scale manufacturing has conveyed better approaches to the customarily operational undertaking of purchasing and this has made the idea of purchasing as a piece of the vital capacity of supply chain management which ought to be adjusted to the general corporate technique. As per Ferguson, Hartley, and Pierce (1996) the level of contribution of the procurement division in the corporate key arranging procedure has expanded through the 1970s and 1980s. Carr and Smeltzer (1997) expressed that in the 1970s and mid 1980s, purchasing took a steady capacity. The literature demonstrates the development toward

integrating purchasing into the organization's vital arranging procedure executed amid the 1990s (gun, 1968). As of late, the idea of procurement has been talked about in numerous studies. The prominence of that subject could have radiated from numerous drivers, incorporating patterns in worldwide sourcing, highlighting on time to market, item quality based rivalry, client vulnerability and the necessity to create primary concern costs (Kalakota and Robinson, 2001). These days, procurement has a vital key part in the value chain and is additionally a noteworthy driver in the broadened supply chain.

In adding to a successful system that improves an organization's long-term profitability, Porter (1979) recommended that a firm must position itself where the forces of rivalry are weakest, adventure changes in the forces and reshape the forces to support them. Porter contends that there are five competitive forces that shape methodology; powerful customers, Powerful suppliers, Threat of new entrants, Threat of substitutes and contention among existing competitors. Awareness of the five forces can offer a business organization some assistance with understanding the structure of its industry and stakeout a position that is more beneficial in the long-term and less defenseless against dangers. The most grounded competitive compel or forces determine the profitability of an industry and turn into the most imperative to procedure definition. The Education business in Ghana is a standout amongst the most imperative commercial enterprises to the economy. The business has as of late experienced amazing development and is one of the quickest developing commercial ventures in Africa. KNUST is one of the surely understood public Universities in Ghana.

Kwame Nkrumah University of Science and Technology (KNUST) was set up in 1951, and situated in Kumasi, the Ashanti Regional capital of Ghana as the Kumasi College of Technology. It is Ghana's principal foundation for Science and Technology instruction and one of the finest in Africa. The University has an understudy limit of about 50,000 involving undergraduate and postgraduate understudies from everywhere throughout the world, particularly, from the African landmass, offering courses running from Art, Business, Law, Science and Technology. The KNUST presents an environment for educating, examination and enterprise preparing in science and innovation for the mechanical and financial advancement of Ghana and the entire of the African mainland and offers administration to the group. The primary college grounds, which is around seven square miles in range, is situated around eight miles (13 km) toward the east of Kumasi, the Ashanti Regional capital, with more than 200 Staffs taking shelf of both scholarly and Administrative works.

1.1 Problem statement

Examination in procurement is by and large directed at an operational and vital level. In that capacity make-buy decisions, tuning the procurement capacity at the operational level makes a considerable measure of financial and non-financial advantages for organizations. Be that as it may, supporting competitive point of preference for an endeavor involves a vital consideration regarding every one of the organization's specializations. Henceforth, detailing of suitable procedures for procurement procedure could help the organization to enhance its key position. Receiving diverse procurement methodologies in terms of suitability and Orientation with generally organization's procedures could create distinctive results. This vital viewpoint of procurement has not increased suitable level of consideration and in addition operational knowledge. The primary aim of this study is to examine the interconnection between the part of key procurement and financial performance of public Universities. An investigation of Timothy Tarsus on Kenyan business banks built up that vital procurement for sure impacts competitiveness of business banks working in Kenya. Vital procurement and financial performance of Iranian assembling organizations, a study directed by Sobhani et al (2013) discovered a positive relationship between the vital procurement and financial performance of the organizations. Kakwezi and Sony (2010) discovered that procurement arranging is a fixing to administration conveyance, however the study concentrated on administration conveyance disregarding different measures of vital nature of procurement like financial additions from expense lessening. Then again, Nantage (2011) attests that vital procurement management directly affects the financial performance of banks in Uganda. Hassan (2012) reasoned that procurement arranging and systems have an immediate positive effect on the performance of compassionate association in conveyance of help and crisis administrations. Little consideration is given to vital procurement in Ghana. It is basic to convey same study from Ghanaian setting.

In addition, the huge level of the three determinants of vital procurement (strategic alignment, purchasing skills, and supplier involvement) which were proclaimed by different researchers, will be examined. Findings of this study add to the key procurement to enhance the financial performance. Management can create procurement capacities by enhancing the purchasing aptitudes of their workers, building up great relationship with key suppliers, having a long-term contract with the restricted suppliers, furthermore arranging the procedures of procurement and general corporate methodology. Pioneers, procurement supervisors and purchasing specialists could misuse the result of the study to hoist the financial position of an organization by advancing the procurement capacity into the key. In the event that an organization to be more key in procurement, the effect of purchasing capacity could be more on the financial performance of the firm.

These issues are applicable to directors as their partners, customers, administrative bodies, non-

legislative associations' and even their own particular representatives, are progressively requesting that associations' location and deal with the environmental and social issues which are affected by their associations' (Carter, C.R. what's more, Easton, P.L; 2011). Procurement administrators are all the more appropriately situated here as they can affect (positively or contrarily) the environmental and social performance, through for instance item or administration particular, assessment and supplier determination, and developing so as to assess performance of the supplier either the performance assessment criteria or utilizing that criteria to assess the suppliers satisfaction of the agreement for which the supplier was contracted.

2. Literature review

In the previous decades, procurement had an inactive part in the business world and it was included as everyday operational exercises. Numerous strategists upheld procurement as a system and they trusted that procurement had been more authoritative than a key capacity numerous years back. These days, it has gotten to be included in both strategic and vital choices in fruitful firms. Amid the most recent a quarter century, management of procurement is a theme which is regularly talked about and has had more consideration. Procurement assumes a key part in an organization's profitability and enhances shareholder values.

Key procurement is characterized as the procedure of arranging, assessing, actualizing, and controlling exceedingly vital and routine sourcing choices (Carr and Smeltzer, 1997). Consequently, a key procurement capacity can assist the organization to build its capacity with being competitive. As indicated by Carter and Narasimhan (1996), if an organization took after five central standards, its exertion could be fruitful at procurement procedure improvement: 1) the arrangement between firm-level methodologies and objectives of purchasing management, 2) adequacy of human asset management, 3) closely connecting with key suppliers, 4) purchasing capacities must coordinate with other assembling capacities, 5) create the suitable environment inside of procurement.

The procurement capacity was seen as a key asset for coming to superb levels, quick conveyance, and expense investment funds. An understood explanation of the goals of procurement is: to get the right nature of material, at the correct time, in the right amount, from the right source, at the right cost. The organizations need to deliberately buy the materials and administrations that will build their capacity to address their client's issues and piece of the pie.

The procurement capacity is not constrained to buy crude materials, parts and administrations; on the other hand, it ought to handle much more extensive elements of supply. In vital supply, the key inquiry is by what means can supply and the supply chain contribute viably to Organizational destinations and methodology? The going with inquiry is in what capacity can the Organizational destinations and procedure legitimately mirror the commitment and opportunities offered in the supply chain? Various past exploration studies have concentrated on the procurement methodologies. The 1980s were a time of moving states of mind towards the part of purchasing in corporate technique (Ellram & Carr, as referred to in Virolainen, 1998). Past examination demonstrated that the procurement could work to wind up known as a more noteworthy patron to the association's prosperity. Purchasing has picked up a critical key part with upgrading pattern and developing from an ambiguous growing so as to buy capacity into a key business accomplice significance of supply-chain management (Ellram & Carr, 1994; Cooper & Ellram, 1993). Cavinato (1999) expressed how vital procurement effectively contributes in corporate arranging procedure. Procurement technique encourages association environment arrangement to appreciate common advantages (Carter & Narasimhan, 1996), and advances cross-utilitarian joining among supply chain exercises, in addition to other things. Thus, purchasing assumes a key exchange part between outside suppliers and inward hierarchical clients in making and conveying value to outer clients (Novack&Simco, 1991).

At the point when firms have what it takes and learning important to take part in social event and handling data, they have an imperative method for contending with different firms (Spender, 1996). The association's techniques assume a critical part in development of purchasing capacity. On the off chance that purchasing has an integrative part in the association's vital arranging procedure, then the purchasing capacity can be described as a vital capacity (Ammer, 1989; Reck& Long, 1988). Past studies proclaimed that procurement and supply management can affect firms' financial performance (Ellram & Liu, 2002; Singhal & Hendricks, 2002). In numerous organizations, key procurement is currently seen as key to competitiveness (Carr and Pearson, 2002). They found that it positively affects the association's financial performance. Procurement performance has for the most part been measured utilizing bookkeeping measures, for example, proportion of purchasing operation cost to aggregate buy dollars spent, and proportion of purchasing operation cost to deals income (Seaman, 1992). Supply chain is perceived as a technique to enhance the businesses performance. Supply chain exercises influence all components of an organization's or association's financial performance, including operation cost, income development, and resource management.

Additionally, Porter (1998) portrayed the value chain as a layout that organizations use to comprehend their expense position and to identify the different implies that may be utilized to encourage usage of a picked

business-level system. An association's value chain is isolated into essential and bolster exercises. A standout amongst the most essential exercises in the value chain is procurement. Segev (1998) characterized procurement as "all exercises included in getting merchandise and benefits and dealing with their inflow into an association". Segev (1998) in his announcement underlined the overseeing of materials and inflow into the firm. Leonard (2000) alluded to the operational exercises of the procurement. Associations can get a large number of advantages by all around oversee procurement business capacities. The benefit and competitiveness of an undertaking is exceedingly dependent on how procurement is actualized inside of the firm. The purchasing of products and administrations of a firm record for half to 70% of aggregate expenses (McGinnis and McCarty, 1998); It has direct sway on benefit in light of the fact that procurement speaks to the biggest extent of costs in the firm. There is additionally a roundabout effect on the benefit because of the considerable piece of the inner expenses influencing what happens in the interface between the firm and its suppliers (Gadde & Hakansson, 1998). Gadde & Håkansson(1998) expressed that "purchasing expenses frequently remain for somewhere around 40 and 60 percent of an organization's turnover". The improvement of the procurement capacity can impact corporate profitability. The procurement capacity has transformed from the uninvolved, receptive administrative viewpoint of the 70's to a key proactive capacity contributing, as much as different business capacities, to construct an attractive competitive favorable circumstances (Versendaal et al. 2005). Procurement has developed from an administrative buying assignment into a vital business work that contributes to the competitive position of organizations (Ellram & Carr, 1994; Carter & Narasimhan, 1996). As indicated by Gadde & Hakansson (1998), a few reasons demonstrate the significance of purchasing and why purchasing comprises of a tremendous piece of the turnover. Firstly purchasing has progressively turned out to be more included in bigger extents of the organization's aggregate action. That is a direct result of the way that the purchasing division's capacity and competency have incredible outcomes for the efficiency of the organization. Purchasing has an imperative part in the organization's profitability. A second motivation behind why purchasing has turned out to be more imperative is that buys influence the outcome straightforwardly. Every dollar less spent on purchasing is one dollar additional added to the overall revenue. The third explanation behind the significance of purchasing is the knowledge that advantages can be made by profound and long-term relationships with a supplier. The powerful purchasing capacity ought to have the capacity to get to the data of supplier industry, for example, supplier markets, occasions, and innovation that are significant to a business. These potential advantages manage stream of material, stream of data and collaboration in specialized advancement. The following explanation behind the significance of purchasing is the expanded entanglement that purchasing includes. By creating society, the separation and the specific units, procurement procedure turns out to be more entangled. The expanded specialization has prompted items which are more perplexing and has a more convoluted purchasing procedure. Numerous organizations buy some material from alternate nations. In this way, universal procurement has likewise extended which has prompted various new issues, for example, the availability to suppliers, taking care of coinage and diverse enactments. Since associations' have turned their center to bringing down expenses and expanding efficiency, the procurement capacity has picked up an inexorably centrality

3. Research Methodology

This study used an illustrative exploration to test the hypothesis with respect to the relationship between key procurement and an Institution's financial performance. The kind of investigation in this exploration is causal. A survey was utilized to accumulate data relating to the research questions and hypothesis. Since this study is a logical explanatory study to test hypothesis, analyst impedance in this sort of examination is low. With respect to reality that the circumstances and end results relationship is perpetually directed in non-thought up settings; the study setting of this examination is characterized into the field study. The operationalized develops of vital procurement idea (key arrangement, purchasing aptitudes, and supplier contribution) furthermore the financial performance idea (ROA and benefit as a rate of offers) are measured by administrating a questionnaire on the premise of the 7-point Likert scale questions. In this way, the consequence of said questionnaire would be interval scale which can be tried under numerous factual analyses. A questionnaire was composed in 26 questions which are isolated into four sections. The principal part is the arrangement between strategic procurement and a company's procedure, the second part is about the expert abilities, the third part is the supplier's inclusion in key procurement and the last part is the inquiries regarding association's financial performance. A seven-point Likert scale with end points of "emphatically deviate" and "unequivocally concur" was utilized to measure the things. The association's financial performance were measured utilizing a seven-point Likert scale with endpoints of "diminished altogether" and "expanded fundamentally". This permitted administrators to rank their consent to an announcement in respect to positive and negative endpoints of a seven-point Likert scale. The overview was worked in mailing. The starting mailing included an individual introductory letter clarifying the motivation behind the study and a study questionnaire were sent to all individuals in the chose test. The purchasing executives and purchasing staffs were focused on in light of the fact that they are most acquainted with Universities' procurement management practices and performance result. An

aggregate of 30 respondents were purposively inspected from the Procurement unit of the University.

Response Rate

A sum of 30 questionnaires were offered out to the KNUST representatives in five offices with access and privileges of procurement frameworks in KNUST Ghana, Kumasi campus. All questionnaires were filled and returned giving a reaction rate of 100%. Concurring Mugenda and Mugenda(1999), a reaction above half is sufficient, 60% great or more 70% is great. Taking into account this attestation the reaction rate for this study can be said to be great at 100%.

The normal attributes of the respondents were noted tending to their years of experience in the procurement unit. 85% of the respondents had worked for no less than 10 years in the procurement unit with 15% having no less than 5 years work experience.

Confirmatory Factor Analysis (CFA) and Reliability Analysis

This study planned to examine the relationship between vital procurement and financial performance of the assembling organizations. To investigate the relationship, an instrument as a questionnaire in light of 7-point Likert scale was designed. Exploratory element examination was done to establish the basic structure of variables for every construct.

This implies the inquiries regarding every construct were gathered from diverse literature, it ought to be examined what number of sub-develops arrive in every develop structure. Kaiser-Meyer Olkin (KMO) insights as a measure of testing amplexness on the premise of connection and fractional relationship predicts if information are prone to component well. As per Table 2, KMO for Skill and Supplier Involvement build is 0.832, 0.675 and 0.799 separately, which are higher than 0.6 whereby it is conceivable to proceed with component examination. Financial Performance build has just two variables, along these lines the exploratory element examination is not relevant.

Table 2. CFA and reliability analysis

Variables	Components	KMO	Cronbach's Alpha
Skill	13	0.675	0.79
Supplier Involvement	5	0.799	0.772

The reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure. In this study, Cronbach Alpha which is a perfectly adequate index of interitem consistency reliability is selected. The Cronbach Alpha for Skill and Supplier Involvement construct is 0.790, 0.790 and 0.772 respectively, which are higher than 0.6. The instruments used to measure independent variables are therefore considered as reliable.

Path Analysis of Structural Model

In the structural portion of the model, each path with a single headed arrow is estimated by a structural equation. Primarily, the amount of each construct was calculated based on the arithmetic mean of its variables. The outcome of analysis on the structural model is illustrated in Figure 1 and summarized in Table 3.

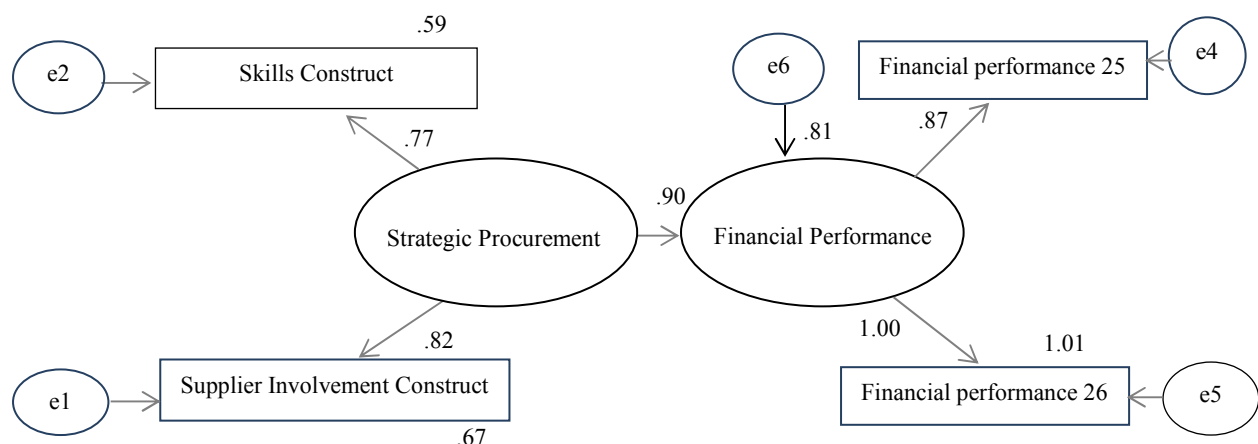


Figure 1. Structural Model

Jaccard and Wan (1996) recommend that at least three fit statistics should be within the range to accept the fitness of the model. Table 3 indicates that all of fit statistics support the model's goodness of fit.

Table 3. Goodness of fit statistics for supplier involvement constructs

Goodness of Fit statistics	Value	Acceptance Limit	Goodness of Fit
CMIN/DF	0.651	≤ 2	Yes
CFI	1.000	≥ 0.9	Yes
TLI	1.009	≥ 0.9	Yes
IFI	1.001	≥ 0.9	Yes
RFI	0.984	≥ 0.9	Yes
NFI	0.997	≥ 0.9	Yes
RMSEA	0.000	≤ 0.08	Yes

According to Table 4, the p - value (<0.01) of the test in regard with the relationship between strategic procurement (independent variable) and financial performance (dependent variable) is lower than $\alpha=0.05$ and also the Critical Ratio (CR=6.87) is higher than 1.96, the null hypothesis is rejected and it could be concluded that there is a significant relationship between strategic procurement and financial performance of manufacturing companies ($\alpha=0.05$).

Table 4. Regression weights of structural model

Constructs	Estimate	S.E	CR	P
Financial performance → strategic procurement	1.670	0.243	6.872	***1
Supplier involvement → strategic performance	1.000			
Skills → strategic procurement	0.605	0.080	7.525	***
Financial performance 25→Financial performance	1.000			
Financial performance 26→ financial performance	1.208	0.095	12.772	***

5. Conclusion and Recommendation

Every Institution intends to survive and be beneficial by accomplishing some kind of competitive point of preference and make it reasonable. Subsequently, studies have been done to examine the wellsprings of competitive favorable position. Concerning asset based perspective; the university tries to completely misuse its resources in the proficient and viable approach to build its financial performance taken after by making a competitive favorable position. Procurement has developed from an administrative buying capacity into a vital business/work that adds to the competitive position of organizations. Compelling detailing and productive execution of suitable methodologies could offer corporate some assistance with bodying to make progress in term of financial performance. Procurement methodology is advanced from the idea of vital management. At the point when the purchasing capacity is acquainted with the organization's vital destinations, it can initiate the procedure of creating procurement techniques. In this manner, the procurement procedure will be in consistency with the general business methodology. This study substantiated that there is a positive relationship between the key procurement and financial performance of public universities in Ghana. Since the vital procurement idea was explored through purchasing aptitudes and supplier contribution builds, the primary finish of this study could condensed into two points. To begin with, by enhancing the abilities of procurement faculty, public organizations could accomplish a superior financial performance so as to take after vital procurement. Second, captivating the key suppliers from the configuration procedure to agreeably explaining the supply chain situations could decrease the squanders of an association and in this way expand its financial performance. The management ought to in this manner spotlight on endeavors to discover corporate and/or business procedure and comprehend it so they can adjust the vital procurement to corporate methodology, and show how procurement management can answer to hierarchical destinations and objectives. Associations' may set up inward classes to instruct the key aptitudes to their workers or may think that it's important to select procurement professionals with these abilities. The supervisors can choose the key suppliers; build up cozy relationships with suppliers to make certain productive and great conveyance of materials. For the future studies, it is prescribed to rehash the present study utilizing perplexing and more exact instruments for measuring the key procurement and financial performance ideas. Exploring the presence of likely arbiters or arbitrators in the relationship between key procurement and financial performance ought to be incorporated into the future studies. Contrasts the ramification of this study and result of examination of the same relationship in the administration area, and to expand the example size to improve the accuracy of discoveries.

References

- CBK,(2014) . Directory of Commercial Banks and Mortgage Finance Companies.Central Bank of Kenya (CBK). Retrieved from Directory of Commercial Banks and Mortgage Finance Companies <http://www.cbk.co.ke>
- CPO Rising (2012).From backroom to boardroom: Procurement goes strategic Innovative Ideas for the Decade Ahead. United States: CAPCO
- Carr, A. S., & Smeltzer, L. R. (1997). An empirically based operational definition of strategic purchasing.*European Journal of Purchasing and Supply Management*, 3(4), 199-207. [http://dx.doi.org/10.1016/S0969-7012\(97\)00014-2](http://dx.doi.org/10.1016/S0969-7012(97)00014-2)
- Cannon, J. T. (1968). *Business strategy and policy*. Harcourt, Brace and World, San Diego.
- Kalakota, R., & Robinson, M. (2001).*E-Business 2.0: Roadmap for Success*. Boston: Addison-Wesley.
- Porter, M. E. (1988). Clusters and the New Economics of Competition. *Harvard Business Review*, 77-90.
- Sobhani1 M, C. A. Malarvizhi, Al- Mamun A. &Jeyashree S. (2013); Strategic Procurement and Financial Performance of Iranian Manufacturing Companies, Asian Social Science; Vol. 10, No. 1; 2014 ISSN 1911-2017 E-ISSN 1911-2025 Published by Canadian Center of Science and Education
- Carter, C.R. and Easton, P.L. (2011); Sustainable supply chain management: evolution and future directions, International Journal of Physical Distribution and Logistics Management, Vol.41 No.1, 2011, pp.46-62
- Carr, A. S., & Smeltzer, L. R. (1997).An empirically based operational definition of strategic purchasing.*European Journal of Purchasing and Supply Management*, 3(4), 199-207.[http://dx.doi.org/10.1016/S0969-7012\(97\)00014-2](http://dx.doi.org/10.1016/S0969-7012(97)00014-2)
- Carter, J. R., &Narasimhan, R. (1996). Is purchasing really strategic? *International Journal of Purchasing and Materials Management*, 32(1), 20-28. <http://dx.doi.org/10.1111/j.1745-493X.1996.tb00216>
- Ammer, D. (1989). Top Management's View of the Purchasing Function. *Journal of Purchasing and Materials Management*, 25(3), 16-21.
- Ellram, L. M., & Pearson, J. N. (1993). The Role of the purchasing function: Toward team participation. *International Journal of Purchasing and Materials Management*, 29(3), 3-9.Ellram, L. M., & Liu, B. (2002).The financial impact of supply management. *Supply Chain Management Review*, 6(6), 30-36
- Versendaal, J., Beukers, M., & Batenburg, R. (2005). *Business Alignment in the Procurement. Domain*.Institute of information and computing sciences.Utrecht University.
- Porter, M. E. (1988). Clusters and the New Economics of Competition. *Harvard Business Review*, 77-90.
- Croom, S. (2011), "Restructuring supply chains through information channel innovation", International Journal of Operations & Production Management, Vol. 21 No.4, pp.504-15.
- Croom, S., Brandon-Jones, A. (2007), "Impact of e-procurement: experience from implementation of the UK public sector", Journal of Purchasing & Supply Management, Vol. 13 pp.294-303.