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Article

Emergence Procurement, Issues and its Pandemics: A case of Selected Public and Private Procuring Entities of Materials in Mbeya City-Tanzania

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Abstract: The study aimed at investigating the emergence procurement issues and pandemics. This investigation came following a number of cases (>80%) over the procured materials found not to meet the requirements. The study was carried out in Mbeya City where 97 respondents from 2 public (30 respondents) and 3 private (67 respondents) procuring entities were involved. This sample frame was obtained by applying the systematic sampling technique. Indeed, data from this sample frame were primarily collected using questionnaire and secondarily by reviewing journals and reading books. The collected and processed data were analyzed using incremental and absolute fit indices. From the analysis it was found that emergence procurement is the result of being not effectively plan for procurement of materials (RMSEA>0.07). It is from ineffective planning for materials to be procured that found to cause the revealed splitting of orders (RMR<0.08; X^2>0.05), inefficient use of scarce resources (GFI>0.90; X^2>0.05) and non retention of customers (NNFI>0.95; X^2 >0.05). It is from this discrepancy found, thus this study recommends that the procuring entities should be used to procurement planning.

Keywords: emergence procurement; splitting of orders; in-efficient use of resources; loss of customers; private and public procuring entities; materials; Mbeya City

1. Introduction

Efficient procurement has been the debatable issue by most of procuring and supply firms. Meeting to this excellent and efficiency in procurement and supply then strategic planning cannot be avoided. The strategic planning dictated has to state what to procure, how much to procure, when to procure and from whom to procure [1]. Thus procurement planning is a vital task towards achieving efficiency in procurement [2]. This is to say, unplanned procurement called emergence procurement can-not meet to the said efficiency and excellence in procurement.

Emergence procurement is un-planned procurement in which the five fundamental questions, the procuring entities should consider are not addressed. The said five fundamental questions that are not addressed in the adopted emergence procurement are what to procure, how much to procure, from where to procure, when to procure and for whom to procure [3]. Thus if these questions are well addressed under emergence procurement, this is then a source of splitting of orders. It is with emergence procurement in which ordering is not confined to the listed five fundamental questions [4]. The results of this is that emergence procurement leading into increase

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in number of orders, inventory cycle time, thus piling up the total inventory cost.

Emergence procurement is the result of inefficient use of organization resources. It is with this then that is why it is said that emergence procurement lead into inefficient use of resources, of which therefore the philosophy total cost minimization is not met [5]. Due to unplanned purchases undertaking might be executed when price is high aiming to meet the demand that fall due. Acquiring materials at high price utilizes more and unplanned financial resources [6]. Moreover with emergence procurement the materials to be procured might be more than what is the actual need of the market at a particular time [7]. This has then revealed to create wastes, redundant and dead stocks [8]. It is with emergence procurement in which materials are overstocked or even under-stocked. Under-stocking is the result of a firm running out of stock [9].

Emergence procurement is the root cause of the withdrawals of the customers from the procuring and supplying firm. As it has noted above, since emergence procurement is normally not confined to specifications then a discrepancy of supplying unnecessary and non-right materials is obvious [10]. Supplying of unnecessary and non-right materials is the result of dissatisfaction of customers [11]. This either withdrawal customers from transacting with procuring /supplying firm. Moreover since emergence procurement is not confined to how much to procure indemptedness towards sustaining a market demand at a given time period called forecasted demand, then the cause of overstocking and/or under-stocking are obvious which then disrupt customer service level. Procuring and supplying little than the market need because the firm incur the stock out cost in which the firm run out of stock for customers not accessed to the materials at the time when needed. This then a major cause of these customers withdrawals. Low quality materials held in a store or procured none planned and supplied to the market is another reason for customers withdrawal from the transacting.

The emergence procurement has revealed to be not confined to optimal ordering [12]. Un-optimal ordering has therefore being a cause of increase in total ordering cost [13]. This is then has caused the philosophy of maximization of total inventory cost being violated.

Gheibi and Fay reported that emergence procurement is not confined to specifications [14]. This either means that the questions of what and how much is to be procured is not confined under emergence procurement. The mergence procurement has found procuring firms not able to meet the market demand that fall due at a particular time [15].

Emergence procurement has found to be the cause of overstocking and under-stocking [16]. Non forecasted materials procurement has been the root cause of double material handling discrepancies [17]. Emergence procurement has been a cause of the firm running out of stocks [18].

From above it has stipulated that emergence procurement lead into negligence of the philosophy minimization of total cost of ownership indeed the inventory total cost. This study underhand has explicitly addressed the impacts of emergence procurement to be the cause of splitting of orders. The spllited order has revealed has revealed to be the cause of increase in ordering cost thus marginalized total inventory cost, increase in cycle time, number of orders and average inventory. Moreover while other authors has stipulated on emergence procurement to be the cause of procured materials not being confined to specifications, this study underhand has stipulated on multiplier effects of the procured and supplied materials not being confined to specifications such that over creation of dead stocks, creation of slow and non moving stocks, uneconomical use of store space, more use of financial resources and procurement of materials more than the actual need of the market.

The overstocking and under-stocking discrepancies revealed by other authors has not uncovered in-terms of its multiplier effects. The said multiplier effects have therefore put down by this study underhand. Thus the contextual gap uncovered by this study under discussion different from other studies was loss of customers being the said multiplier effects of under-stocking and overstocking. The concepts revealed leading to loss (withdrawals) of customers resulted due to under-stocking and overstocking were un-time delivery, non right quantity, non-quality and non-right priced materials.

To reveal the facts, this study employed three specific research objectives. These objectives were: - to investigate the effects of emergence procurement on splitting of orders; to examine the effects of emergence procurement on inefficient use of resources; and analyze the effects of emergence procurement on loss of

customers. The general research objective defining the three specific objectives was to investigate the effects of being used to emergence procurement.

2. Literature Review

2.1. Theoretical Literature Review

The study was guided by Strategic Process Model supplemented by the Hybrid Linear Cyclic Process Models [19]. Strategic process model proposes procurement undertaking to be strategic in a manner that whatever what need to be procured need to be planned. The model suggests on the importance of being adhered to five fundamental questions before actual deliveries which are what, how much, when, where and for whom to procure. That means the materials to be procured should be confined to specifications. Specifications reveal the problem, the society face, the issue which was not put down by linear process model [20]. The Linear Process Model which came before cyclic and hybrid Linear-cyclic Process Model proposed that before actual delivery, then the procuring and supplying should first determine the problem (the actual need) of the market of which the need of the market of which the need is defined by preparing procurement plan sometimes called annual procurement. With cyclic process model by [20]. is that whatever should first determine the problem (the actual need) of the market of which the need is defined by preparing procurement plan, sometimes called annual procurement. With cyclic process is that whatever what is to be adhered to the market, still there should a feedback executed by performing evaluation to determine whether what has delivered is the material actually demanded by the society (customers). Thus aggregation of linear and cyclic process Model which emerged to hybrid linear-and-cyclic process model had a concepts stipulated by both linear and cyclic models.

Using strategic process model supplemented by hybrid linear – cyclic model has shown that problem identification (determination of market need) is a vital juncture before actual replenishment of the materials. Indeed it has shown that the problem identification is defined by uncovered five important questions which are what to procure; how much to procure; when to procure; where to procure and for whom to procure confined by preparing annual procurement plan.

Despite of the innovations put forward by strategic process model but the opposite side say if the specifications and if the problem is not clearly defined what will happen has not stipulated. The opposite side what has stipulated by this study under discussion is unplanned procurement and its pandemics. As what has stipulated by this study, unplanned procurement called emergence procurement revealed to be the causal of splitting of orders, inefficient use of resources and loss of customers.

2.2. Empirical Literature Review

Kweka associated the emergence procurement and use of more cost in procurement undertakings in India [21]. With this study by it was revealed that because emergence procurement is a ghost unplanned procurement dealings then during acquisition, the price of materials might happen to be very high [21]. This then demand a procuring entity to use more financial resources to adequately acquire the intended materials. With a slight difference is that the study by [21] was specifically correlating the emergence procurement and the marginal cost incurring.

Moreover, according to in Romania it was revealed that it is by 84% cases reported over supplies is that pertaining stock-outs due to opting for emergence procurement [22]. It was moreover revealed that emergence procurement is unplanned procurement from which the procurement method is not known. This was further revealed to be the cause of a firm realize to have zero inventory when a fresh ordering for delivery is done but only to realize that the firm is running out of stock. What innovative has therefore brought by this study is that it is from the stock out discrepancy what has revealed to be the cause over loss (withdrawal) of customers. It was explicitly said that nothing efficient and optimally will be obtained if more financial resources was to utilized. This study under discussion has been broad by dictating on the more resources use and not when only emergence procurement is made part and parcel of the routine activity of the procuring firm. More resources does not only implies more cost to be incurred when acquiring materials but also more materials bought than the

actual demand of the market, more human and physical resources un-optimally utilized. Thus this study under discussion revealed the pandemics of emergence procurement and the dilemma of not meeting the optimality over use of resources in general.

Marshall et al. in Tanzania reported on increase in average inventory due to emergence procurement practices [23]. From the study by it was revealed that the sometimes it happen that the inventory ordered become overstocked and thus creating slow moving average stock [23]. It was furthermore revealed that the more average inventory was due to high non-moving stocks/wastes once realized dead stocks. This study under discussion has stipulated on the root cause of high average stock held in a store caused by splitting of orders. More other issues that this study underhand addressed to be rooted at splitting of orders were increase in ordering cost, holding cost, number of orders, number of deliveries and inventory cycle time which has revealed to disrupt optimal replenishment.

2.3. Conceptual Framework

The association of variables, concepts from the above hypothesis analysis and reviews of literature, the conceptual framework was drawn as shown in Figure 1 below.

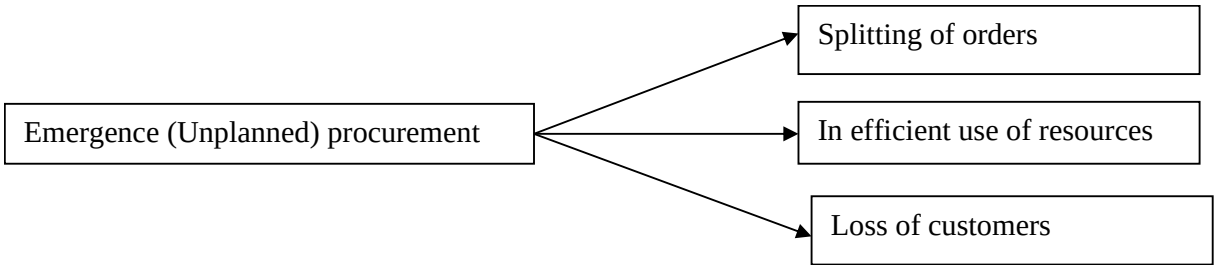

Figure 1. Conceptual framework of the issues and pandemics of emergence procurement.

3. Materials and Methods

The study used the cross sectional survey design and positivistic philosophy. Moreover the study was conducted in Mbeya City Council. This area was chosen as Mbeya City is one of the outgrowing cities with many traders popping in. Through a pilot study it was found that despite of large number of traders popping in especially in the city centre and the area of Mwanjelwa but most of business runners (procuring and supplying firms) lacked managerial skills pertaining effective planning. Through piloting it was found that about 80% of procuring and supply firms do not plan for procurement undertakings. Though the study included a large number of private procuring firms but public procuring firms were not left aside. This was one of the criterion that used to differentiate this study and other studies which found to be concrete and much over private procuring firms. The study included 2 public and 3 private procuring entities. It is from this sample frame in which 30 respondents from public and 67 respondents from public procuring entities/firms. Indeed the 30 out of 67 respondents from private procuring firms were from the large ones and 37 respondents were from micro, small and medium procuring firms. The targeted population was the procuring and supplying firms involved in procurement of materials (goods).

To derive to 67 respondents from 2910 total population for only registered and licensed procuring firms, the study employed systematic sampling. Using systematic sampling technique the 30^{th} interval was deduced from the formula n= N/n where N= total population =2910 and n = sample size = 97. This means that the 1^{st} 30 interval was for 30 respondents from public procuring firms, the 2^{nd} 30 interval of respondents was for large private procuring firms and the other 30 (+7) was for micro, small and medium procuring firms.

The primary data from the sample obtained were obtained by employing questionnaire and secondary data were obtained by reviewing journal articles , Wikipedia and reading books. These documentary reviews enabled to back up the study by revealing or associating the concepts said by other authors in relation to the study underhand for validity and reliability proof of primary data obtained from the field.

The data collected were from four variables which were splitting of orders, inefficient use f resources, loss

of customers and emergence procurement. The variables were measured using likert scales of the form '5' = strongly agree; 4= agree; 3= undecided; 2= disagree and; 1= strongly disagree. The collected data were coded, edited, checked for missing values and cleaned and then subjected for analysis. The analysis employed inferential statistics tools including absolute and incremental fit indices which were RMSEA, RMR, GFI and NNFI.

4. Findings and Discussion

4.1. Emergence Procurement and Splitting of Orders

With this title, the study aimed at revealing the effects of emergence procurement and the way orders are split. None planning over procurement of materials as it is to other assignments lead into of orders. As it was reported by [24], splitting of orders pile up materials ordering cost, and thus increasing the numbers of orders. The results from the field were regarding title head were presented as shown in Table 1 pertaining the Root Mean Residual (RMR) testing.

Table 1. Root Mean Residual Analysis Testing results.

S/N	Constructs (N=97)	Value	d.f	$\chi 2$	Pro
1.	Marginalized ordering cost	0.06	(1, 96)	0.07	0.001
2.	Increase in number of orders	0.05	(1, 96)	0.09	0.002
3.	Increase in average inventory	0.07	(1, 96)	0.20	0.000
4.	Increase in inventory cycle time	0.04	(1, 96)	0.30	0.003

Source: Researchers' Own Computations (2020)

It is from the results shown in Table 1 which indicates that emergence procurement is a contributory start for the organization not able to minimize the inventory total cost. This either is due to the proof over marginalized inventory ordering cost with RMR value =0.06<0.08, the recommended value. High ordering cost including the purchase price, shipping cost, suppliers searching cost has a multiplier effect over increase in material holding cost. Emergence procurement ignores the principles of optimism as it is to economic order quantity model (EOQ).

Moreover the same results over splitting of orders and emergence procurement was shown with RMR results =0.05, $\chi 2$ >0.05 regarding increase in number of orders (n=D/Q =d/Q) as it is to other constructs. Normally with increase in number of orders, then more ordering cost is to be incurred. Moreover if the buffering system is not properly executed then the organization might be creating wastes = $\underline{\text{(Average waste)}/\frac{1}{2}}$

$\text{(Average inventory)}/1/_{12}$

Indeed splitting of orders due to adoption of emergence procurement is a result of increase in average inventory (Q/2), RMR =0.07. Increase in average inventory results into increase in slow /non-moving stocks where inventory turnover rate is negligible. Non moving stocks where inventory turnover rate is negligible. Non moving materials are dead stocks which end up with loss to the firm if it is no causing uneconomical use of store space. This either was the same reported by [25] that more average inventory creates obsolete, dead and inadequate stocks.

Splitting of orders due to adoption of emergence procurement found to prolong the inventory cycle time shown by RMR = 0.04. It was revealed that splitting of orders happen to prolong the process of procurement in which the problem of running out of stock is there obvious. Emergence procurement does neither offer optimal ordering as it is with EOQ nor buffer stocking zero inventory ordering system [25].

The statistical significance between emergence procurement and splitting of orders was proven from the found cases over increase in inventory ordering cost 4 times (represented by increase in inventory cycle time, Chi-square =0.4 at p=0.05) different from the procuring firm used to procurement planning. As it has noted above the major cause of piling of ordering cost was the replenishment being subjected to high purchase price

when demand fall due. The problem of splitting of orders by most of procuring and supplying firm was indeed with private, micro and small ones.

4.2. Emergence Procurement and In-Efficient Use of Resources

With this subtitle, the study motivated to express the effects of emergence procurement towards inefficient use of resources. In any business optimization over use of resources is a priority [26]. Optimization entails efficient/proper use of scarce resources purporting to maximize outputs or outcomes. Optimality in the use of resources details over proper use of store space, ordering the optimal quantity of materials that sustain market demand at a given periodic time. More other information found from the field was shown in Table 2.

Table 2. Goodness of fit index analysis testing.

Constructs	Value	$\chi 2$	Sig.
Materials ordered	0.91	0.20	0.000
Financial resources	0.92	0.10	0.001
Store space	0.94	0.30	0.002

Source: Researchers' Own Computations (2020)

With GFI = 0.91 pertaining perception of the quantity of materials order shows the problem of overstocking or/and under-stocking to persist. It is obvious that non- planning and forecasting of materials needed is the results of either materials being ordered more than what is required called overstocking or being ordered in less quantity than the required one called under-stocking. This was also said by Njualem that since emergence procurement is not planned and forecasted then what is procured normally does not meet the demand of the market [27]. On other hand it was reported that unplanned procurement of materials gives rise to ordering of larger quantity of materials than what is the actual demand [28]. The pandemics with more materials ordering is the incur rage of more holding cost [29]. Excess holding of materials is the cause of creation of wastes, redundant (dead) stocks, obsolete and obsolescent stocks [29]. Excess materials holding implicate inefficient use of store space [29].

The GFI =0.92, $\chi 2>0.05$ as it was with constructs number 1 and 3 indicates that emergence procurement is the source of non-efficient use of financial resources. Thus optimality over use of firms' resources being not attained. Non planned procurement undertakings is (are) procurement acting which are not used to budget schedule, thus the risks of ordering large amount of materials at unplanned budget is there obvious. It is with emergence procurement in which more cost might be incurred at the time materials are needed while its price is very high [30]. Thus either is the result of acquisition of materials which are of low quality due to the specified ones being offered at a very high price unaffordable. The low quality, non-specified materials end up being dead stocks.

It is from the discrepancy of splitting of orders, in which more materials ordering lead into "double handling". This was found to be acute over perception un-proper use of store space, GFI =0.94, given $\chi 2>0.05$. Overstocking usually bring in materials of which some are of low quality not demanded by the market at that particular time. This either creates excess materials which give rise to an un-optimal use of store space [31]. This means that while say materials of class A (high quality ones) where to be handled in a store in a given time period but now even the so called slow moving or class C materials (non demanded materials) were found held in a store which is now counted as un-economical use of store space. Moreover, emergence procurement was revealed to be a causal of the loss of customers' satisfaction the fact found and presented in Table 3.

It was furthermore revealed that the total cost of inventory found to increase twice more for unplanned procurement as compared to the planned one. That means more cost found to be incurred with the firm not used to inventory planning and forecasting. It was moreover reported over reported statistical significance equal to Chi2 square = 0.3 at p=0.05, cases over dead stocks creation due to use of emergence procurement. Double material handling cases were mostly reported given un-optimal use of store space given chi square>0.05 (Refer

Table 4)

4.3. Emergence Procurement and Loss of Customers

The subtitle emergence procurement and loss of customers aimed at investigating the extent to which opting for unplanned (emergence) procurement give rise to loss of customers. As it was indeed said by Stark that since emergence procurement is conducted out of specification, out of time of delivery, out of budget and time schedule then the risks of buying non-specified (i.e. materials of low quality, less quantity) has been common [32]. Emergence procurement is non-smart procurement undertakings of acquiring new materials when they have just finished in the store [33]. Emergence procurement is a traditional way of procuring materials of which the fundamental questions what a procuring firm should consider are not fostered such as what to procure; how much to procure; for whom to procure; where to procure; and when to procure.

Table 3. Non Normalized Fit Index.

Constructs	Value	$\chi 2$	Sig.
1. Time delivery	0.94	0.06	0.000
2. Right quantity	0.92	0.07	0.000
3. Right quality	0.93	0.08	0.000
4. Right pricing	0.91	0.05	0.000

Source: Researchers' Own Computations (2020).

With time delivery of materials, NNF=0.94 which is less than 0.95 shows that emergence procurement has negative association with customer retention. That means one of the cause of customers withdrawals is the late deliveries. This is the fact because with emergence procurement, materials needed of such quality and/or quantity might be not found in the store at that time, which might satisfy the need of the customer. The time of placing order until replenishment called lead time become in dilemma, thus even the on-time delivery o materials cause the needy group in reverse not able to meet the demand of the market on time. It is with this discrepancy what causes the needy group/buyer/customer withdrawal from supplying firm and another firm committed to on-time delivery of materials.

The results over right quantity deliveries, NNFI =0.92 is contrarily from the contention over customer or market capturing to the causal of less or more than what is needed deliveries. That means emergence procurement give rise to overstocked/excess material holding which creates wastes in a store. The wastes are obsolete and obsolescent materials of low value not able to sustain customer need [34]. The less quantity of materials ordering is also a dilemma that a procuring and supplying firm can-not retain customers. Ordering less than what is required by the market result into incur rage of stock out cost. With this then customers won't be accessed to materials at the time when they are needed. This either draws trust of customers/purchases from the supplying firm [35].

The results over right quality deliveries, NNFI =0.93 is the indication that most of procuring entities indeed the private supplying firms were not quality embedded ones. This dilemma was mostly found to be caused by opting for emergence procurement. Quality materials are specified inventories what customers demand for, thus it is through emergence procurement in which ingredient 'quality' is not much considered but 'quantity'. This is then a reason why most of organization opting for unplanned procurement ends up buying low quality quality-dead materials. The low quality valued materials deliveries deprive customers from the business transactional relationship. This is the fact that customers/buyers are interested with quality materials, opposite to that they normally withdrawal from such business relationship.

From Table 3 given the NNFI =0.91 for right pricing shows controversial that exist between the two variables i. e. emergence procurement and retention of customers. That means the NNFI<0.95, being the recommended level shows that emergence procurement is normally subjected to high priced materials. The

highly priced ordered materials are associated with the same high selling price. The high selling price has mostly found to be not friend to customers/buyers for the procuring firms not retain customers. According to [36], the high the price the low the demand and the opposite given that other factors affecting demand are kept constant called ceteris paribus.

The statistical significance found between the variable emergence procurement and loss of customers equals to Chi-square =0.4 at p=0.05 (See Table 4) was a proven fact over number of cases reported indeed with private procuring firms over being not able to retain customers. It was reported that at the time of introduction the firm hold large customers but sooner after sometimes of launching a business or introducing the supplies, customers start to withdrawal from the business and establish new business relationship. As it has noted above indeed regarding a negative relationship between emergence procurement and retention of customers smear the proof that emergence procurement is the cause of Chi-square>0.05 statistical significance in relation to off-time deliveries (NNFI=0.94); deliveries of wrong materials (NNFI =0.92) and high price underpinned (NNFI =0.91).

Table 4. Hypothesis Testing.

Null Hypothesis (H_0): EP= S_O; EP=IUR; EP=LC				
		Value	**d.f**	**Pro.**
Chi-square test	So	1.6	(4, 93)	0.045
	IUR	1.2	(3, 94)	0.050
	LC	1.6	(4, 93)	0.050

So=splitting of orders**, IUR =** inefficient use of resources**; LC=**loss of customers**.**
Source: Researchers' own computations (2020).

5. Conclusion and Recommendations

Emergence procurement is unplanned and non forecasted acquisition of good services or works [37]. From the field it was revealed that opting for emergence procurement has positive influence on splitting of orders, inefficient use of resources and loss of customers. It was indeed found that emergence procurement was the result of un optimal ordering which pile up ordering cost and thus inventory holding cost. It is from the discrepancy revealed what this study suggest the following, the policy makers, through PPD, should emphasize public procuring entities used to procurement planning and other efficient adherence procurement. Also through PPRA, the government should insist and publish principles on attaining to efficient procurement in which procurement planning cannot be avoided. Indeed, through PSPTB, the government should continue conducting CPD programs, certifying qualified candidates who would efficiently act in procurement discipline.

Moreover, the firms should be used to inventory planning and forecasting; the firms should define requirements (i. e. what and how much to procure); the firms should be used to framework contracts in procurement from which the method of procurement is also to be define and the firms should be used to budget schedule. To wound up, the firms should be used to specifications (defining Bill of Materials) as well as the firms should be used to time schedule (work plan).

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The author declares no conflict of interest.

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