

## Determinants of Inventory Management: A Case of Military Practices

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Inventory management is critical and has long been studied as evidenced widespread academic literature. The problems in inventory management practices have continued to receive much attention in most business and non-profit organisation such as the military as it involves cost and the need to balance between demand and supply. Therefore, efficient inventory management practices are vital in ensuring inventories are enough to satisfy superior demands and customer needs. This research instrument was pilot-tested among 36 respondents to determine validity and reliability. The results were then highlighted in a measurement data table. Questionnaires were again distributed randomly to employees at 91 COD using simple random sampling. There are possible avenues that can be explored in future research regarding inventory management performance in the context of the Malaysian military. It would be interesting to see if future studies will be able to explain whether organisational performance (financial or non-financial) is positively related to current inventory management practices. This research has identified most of the significant factors that affect current inventory management practices in a given setting. The findings regarding when the factors and performance become (non) compensatory will be useful as it is now known which factors are critical and essential for successful execution of inventory management at 91 COD. Future research should also consider whether the outcome, i.e. inventory performance of the Malaysian military is really affected.

**Key words:** *Inventory management, turnover, procurement.*

### Introduction

Inventory management is critical and has long been a research topic. The problems in inventory management practices have continued to receive much attention in most businesses and non-profit organisations such as the military as it involves cost and the need to balance between

demand and supply. Therefore, efficient inventory management practices are vital in ensuring inventories are enough to satisfy expected demands and customer needs. The aim of this paper is to study the relationship and effect of inventory management practices in military settings. The current inventory management practices that are considered in the study are planning, bureaucratic procurement procedure, documentation and store records, funding and staff skill.

91 COD under the Malaysian Army Royal Ordnance Corps (ROC) is the main depot responsible for and directly involved in inventory management in terms of managing, cataloguing, planning, procurement, and distribution of supplies for the Malaysian Army. Consequently, in order to meet superior demands and customer needs, efficient and effective inventory management practices are crucial to ensure the state of readiness of the Malaysian Army at the highest level. 91 COD is the main depot to equip the Malaysian Army in terms of ammunition, explosive, clothing, spares, stationery, and weaponry major components in the overall readiness of the Army. The lack of study in inventory management practices in the Malaysian Army drives this research in order to provide insights on the viability of current inventory management practices and subsequently add knowledge in inventory management practices to the Army.

### **Problem Statement**

Institutions, especially manufacturing and supply companies, adopt inventory management into their operation system. Inventory management plays a vital role in managing assets and supplies. Effectiveness in inventory management leads to increase in sales thus directly affects the performance of the company (Syed, Nadia, Amira & Durratun, 2016). Ondari and Muturi (2016) stated that problems in inventory management are common in every organisation. Issues in inventory management are not only a peculiar problem but more importantly a universal problem. Mensah (2015) highlighted that when resources are limited, management needs to find the possible and effective ways of reducing cost of purchase and the cost of holding inventory. Singh, Sahu & Nayak (2012) note that inventory costs comprise the costs that are incurred in ordering, holding and distributing of inventory. Thus, it becomes important to properly manage inventories in order to avoid unnecessary or additional cost to production (Ondari & Muturi, 2016).

Mismanagement of inventory harms a firm's viability by the fact that excessive inventory requires large space, increases handling costs, and raises the risk of damage, spoilage and loss (Lwiki, Ojera, Muginda, and Wachira, 2013). According to a study by Shardeo (2015), TATA Steel company in India utilized its assets efficiently but its inventory turnover ratio was low due to its poor inventory management. This case also demonstrates that inventory management influences the financial condition of the firm. Companies in Malaysia are no exception, another example is in a textile chain store is whereby stakeholders raised the issue on inventory

mismanagement that led to the company's loss as reported in The Star Online (Khoo, 2013; Leitão, 2013).

Many business organisations do not give inventory management the prominence it deserves in spite of its varied importance (Ondari & Muturi, 2016). Profit-oriented organisations are more committed to this compared to government organisations (non-profit oriented) as it affects a considerable amount of funds being paid to the manufacturing company. A review by UK National Audit Office in 2012) entitled "Managing the Defence Inventory" states that current inventory management practice is ineffective in minimizing the risk of having insufficient stock while also minimizing the cost of holding stock and reducing the amount of money tied up in stock holdings". This shows that the non-profit oriented operations such as the military face the same problem in their inventory management. In the Malaysian Army's context, a supply of inventory to support the maintenance system that is currently practiced in the Malaysian Army is ineffective, leading to serviceability rates of vehicles being at an undesired level (Satian R., 2009; Lawal & Samy 2017).

Royal Ordnance Corps are responsible in inventory management in terms of managing, cataloguing, planning, procurement, and distribution of supplies (MP 12.2.1A TD, 2006). A study by Faisal (2012), "Effectiveness of Ordnance Delivery Service to Customer", indicates delay in procurement and delivering of supplies due to poor documentation and store records, and bureaucratic procurement process. Moreover, based on the observation of the Commanding Officer of 91 COD, current inventory management practices are inefficient that it contributes to delay of procurement and delivery. The inefficiency is caused by inadequate funding, and lack of skills of store officers and staff in store supervision and management. This is proven by delays in delivery of stocks and equipment to end user (MIS Report, 2014 & 2015).

## Literature Review

Studies in inventory control and management practices have been the focal attention of organisations. Zomerdijk and Vries (2003) state that it is vital to have a broader view in tackling practical inventory control problems within an organisation. Typically, there were only three factors discussed in most studies regarding inventory management which are order quantity, order interval and inventory management system. In addition, organisational context in inventory management is investigated. The example of organisational context is the allocation of authorities and responsibilities in inventory management. Upon identifying inventory problems, an organisational inventory control has to be developed based on the organisation's perspective which will address traditional factors such as order quantity and replenishment strategy in planning, allocation of responsibilities and authorities with regards to inventory management by skilled staff, the quality of documentation and records, and decision-making process in a bureaucratic environment. In this regard, all factors are integrated into a framework

that is useful in analysing and redesigning the inventory situation. This then translates to a very useful tool in dealing with inventory control and management problems. The factors of funding, bureaucratic procurement procedure, documentation & store records, planning and skills are to be analysed with regards to 91 COD in this study.

Carter and Price (1993) state that by having sufficient funds the organisation can run its activities efficiently and effectively whereas with inadequate funds, organisation may have difficulties in running its activities. The Malaysian Armed Forces (MAF) is given a budget allocation every year. This budget is apportioned to each military service i.e. Malaysian Army (MA), Royal Malaysian Navy (RMN), and Royal Malaysian Air Force (RMAF) to manage their respective operational expenses (OE) and development expenses (DE). Inventories involve extensively in both OE and DE. Therefore, when the allocated amount does not match the increasing maintenance cost, the MAF officers involved face difficult challenges in managing the limited resources. Inadequate funds may also lead to problems in staffing where institutions have to make staffing cuts due to increasing costs and inadequate funding.

According to Dobler and Burt (2006), the success of a project is also dependent on having sufficient resources of funds hence relates to the stature and standing of financial management of the organisation. Burton (1981) found that, due to inadequate funding, procurement of various goods and services were not received as and when required. This is supported by the study by Ng'ang'a (2013) which states that inadequate allocated funds will result in delays in procuring goods, works and services.

Intaher & Johanna (2012) defined procurement procedure as a process to acquire and receive goods and services. Procurement process involves preparing and processing demand until the final stage of receipt and approval of payment. In addition, Erdis (2013) found that in today's globalized economy, procurement correlates positively with inventory management. Therefore, the necessity to have a highly streamlined procurement and inventory management function is vital for the organisational efficacy and success.

According to the study by Thompson (1961), Max Weber's bureaucratic model characterizes bureaucracy as a system of administration where, for the purpose of achieving efficiency, an organisation's operations are guided by laid down rules, regulations, procedures and methods. This model presents a system where emphasis is placed on legal-rational leadership, knowledge, qualification and experience as the criteria for selection into organisations. Positions which are hierarchically organized are determined by knowledge, qualification, skills and experience. Rewards and promotions are awarded on merit.

However, most other studies view bureaucracy as something negative. For example, Osborne and Plastrik (1997) state that bureaucracy features too much red tape and paper work which

lead to unpleasant experiences and inefficient operations. Workers would rather settle with what workload already done and play it safe rather than trying pursuit time to complete the project or work as they rely on rules and policies and try to avoid risks.

In addition, Wegmann and Cunningham (2010) stated that red tape is defined as “rules and regulations, administrative and management procedures and systems, which are no longer effective in achieving their intended objectives, and which therefore produce sub-optimal and undesired social outcomes. It happens to all kinds of organisation whether in government, private sectors and civil society.” Normally the media, politicians, businesses and other people use it to refer to tiresome procedures and regulations such as long queues, endless paperwork, lengthy procedures and onerous legal requirements.

The study by Osborne and Plastrik (1997) notes that red tape issues are costly and affect budget and resources in the organisation. Costs might be inflated due to the increase in training costs, performance monitoring costs and compliance enforcement costs within the organisation. Other costs are expected to be incurred due to unnecessary or complicated procedures.

Furthermore, Kenneth & Kenneth (2005) stated that bureaucracy expects conformity in behaviour rather than performance. Organisations with rigid rules and policies are less flexible in carrying out its duties. Obviously rigid rules and policies are good in maintaining accuracy, standards and behaviour. However, it can also give unintended consequences due to time delays that subsequently lead to higher cost. Some rules may be interpreted differently when they are not clearly defined. Therefore, it could lead to the rules becoming difficult to enforce in a consistent way.

On the other hand, we still find positive assessments and empirical findings stressing the importance of well-designed procedures for facilitating task performance, avoiding role conflicts and role stress, and triggering positive effects on commitment. There are even empirical studies which find a positive influence of bureaucracy on job satisfaction and innovativeness (Adler and Borys, 1996; Deming, 2000; Pfeifer, 2001; Loukil, 2017).

Based on the Good Records Management Practices (2001), records can be defined as any recorded information or data in any physical format or media created or received by an organisation during its course of official business and kept as evidence of policies, decisions, procedures, functions, activities and transactions. The use of computers with information systems that includes order entry, accounting and budgeting has long been used by top managements to manage their tasks.

In today’s globalizing economy, information technologies have become major driving forces in business world. For instance, Management Information System (MIS) has been used by

many organisations to facilitate recording their day to day operational activities. Stimson (2012) further elaborates that MIS is a system primarily used for inventory management practices and keep tracks of inventory flow from the point of purchasing, shipping, sales and other related function.

According to National Council of Social Service in 2007, documentation and store records are important to ensure accountability, facilitate coordination between providers and for service improvement. Good records and documentation ensure continuity of care to long-standing customers whereby the records provide the history that gives more holistic information on each unique customer's needs. Secondly, with good documentation and recording systems, the organisation fulfils its responsibilities. In providing service, inventory management practices such as documentation and records will provide relevant client information and client records at any given time based on their needs.

Maintaining good records and documentation will also lead to improved services to the customers by helping staff organize their thoughts. The most important documentation and store records in relation to inventory management practices are the ones to keep track of the inventory. It allows the staff to be aware of every movement in stocks, physically. According to Atyam (2010), failure to keep proper inventory records may result in failure to control the inventory. Birkinshaw & Heywood (2010) stated that use of a tracking system helps in reducing human errors thus benefiting the organisations.

According to Jonsson and Mattsson (2008), planning is a critical factor in putting in place effective inventory management practices. Planning has been described as a future approach in which the inventory will be manoeuvred. Planning is essential in inventory management which assists in physical control requirements that helps to cover preparations during periodic evaluation of inventories (Ivanov, 2010). The study of Gupta, Gopalakrishnan, Chaudhari and Jalali (2011) suggests that failure to conduct a proper planning in inventory management may impact on balancing present inventory requirement with upcoming demands. Their study stresses that planning should include various parties such as suppliers. They suggested, suppliers should be involved during pre-planning to allow more transparent discussion hence more fruitful results. It will also prevent organisations making fruitless expenditures on their inventories.

In addition, according to Lorsuwannarat (2017) planning, transparency, and accountability are also critical factors in effective management. Failure to plan properly to meet its mission and challenges will lessen the government's ability to provide its services efficiently and effectively then and in the future. Similarly, in inventory management any mismanagement and waste, as well as a lack of transparency to the citizens in government operations, can erode public trust.

Planning can be performed in the form of short and long-term planning. Feng, Zhang, Wu and Yu (2011) asserted that inventory control planning is important for both the private and public sectors that handle high volume of inventory. When there is a shortage of skilled workforce, the use of short term inventory planning is helpful. Some of the advantages of using short-term planning in inventory management are the increase of accuracy and consistency of planning due to the use of technology and electronic means.

Likewise, Chris (2011) revealed that setting out the long-term goals directly associates with planning and monitoring of real operations of the organisation. Setting out goals is considered a strategic or long-term inventory planning. In long term planning, a corrective action would have been taken in a situation where actual results differ from planned results. A long-term inventory management plan involves a strategic decision-making to reach a resolution. Abadzic, Umihanic and Cebic (2012) upheld that a strategic inventory planning can provide proactive decisions to outline the inventory management practices. Therefore, both types of planning play essential roles in inventory management.

Ondari and Muturi (2016) stated that staff that is qualified, competent and skilled will help the organisation to achieve its goals and objectives by being efficient and effective when carrying out their various functions. In order to succeed in managing inventory, a qualification is therefore a pre-requisite and must be matched with the job requirement, hence there is a need to hire and develop ambitious personnel. Inclusion of unqualified staff in inventory management practices will cause ineffectiveness in inventory control. Bailey and Farmer (1982) suggested that for inventory management function to achieve a superior performance, it is necessary to recruit, train and develop personnel with the capacity and motivation to do a better job. Likewise, Carter and Price (1993) indicate that training of staff is vital and that their skills will further improve if their abilities and talents fully utilised. However, incompetent or low-skilled staff can render inventory management ineffective.

Dragoni, In-sue, Vankatwyk & Tesluk (2011) mentioned that most of the critical procurement tasks will require work experience and good educational background. Thus, they concluded that knowledge of what one is required to do and the effect of the action should be known by the operatives or staff that handles inventories. Sallop & Kirby (2007) and Moreland & Angur (2006) agreed that for the staff to be competent, they need to deeply comprehend their work. Therefore, inventory management practices require professional staff. Van Zyl et.al, (2010) mentioned that professional staff understand their line of work that are attained through knowledge, training, skills and experience, achieved through organisational commitment.

Besides professional qualification, training develops and improves job knowledge while also helps in identifying the goals of the organisation (Ramya, 2016). Ramya further stated that training is the process of increasing the knowledge and skills for doing a particular job. The

purpose of training is basically to bridge the gap between job requirements and present competence of an employee. Training is designed to improve the behaviour and performance of a person. Also, it is a continuous and never-ending process.

Gordon (1992) urged that organisations implementing inventory management provide opportunities for continuous development of employees not only in their present jobs but also to develop the capabilities for other jobs. In relation to that, Wright & Geroy (2001) noted that employee competencies change through effective training programmes. It not only improves the overall effectiveness of the employees but also enhances their knowledge, skills and attitude for the future job, thus contributing to superior organisational performance.

The American Production and Inventory Control Society (APICS) defines inventory management as the branch of business management concerned with planning and controlling inventories. Toomey (2000) referred inventory management as all the activities involved in developing and managing the inventory levels. The role of inventory management is to maintain a desired stock level for every specific product or item.

Lyson and Gillingham (2003) state that inventory management practices are aimed at ensuring that the company is supplied with the right quantities of inventories at the right time, in the right places and ensuring optimization of the benefits of holding inventory in the organisation.

Buffa & Salin (1987) and Dimitrios (2008) agreed that too much stock could result in funds being tied down, increase in holding cost, deterioration of materials, obsolescence and theft. On the other hand, scarcity of materials can lead to disruption of product supply for sales, poor customer relations and underutilized machines and equipment.

Coyle, Bardi, & Langley (2003) further stressed that effective inventory flow management in supply chains is one of the key factors for organisational success. Balancing supply and demand is a challenge in inventory management. Organisations have to plan in managing their inventories. Arguably, including suppliers during planning is a good inventory management practice.

Allocation of funds is vital to the survivability and effectiveness of organisation especially in dealing with inventories. The effect of funding is tremendous. Inventories can take up 30% of the overall funding of an organisation. Hence, the need to study and formularized a strategy to ensure allocation of funds are maximized efficiently is imperative. Burton (1981) found that, due to inadequate funding, procurement of various goods and services were not received on as and when required. This is supported by the study of Ng'ang'a (2013) which stated that inadequate funds allocated will results to delays in procuring goods, works and services. However, a few studies have identified that in several organisations, funding does not really

effect the organisation. This study seeks to examine whether funding affects inventory organisational management.

Based on the conduct, analysis and results of the study, a few recommendations can be made for the benefit of the organisation and for future studies on the topic. As for the organisation, it is recommended that the findings of the study be used by Royal Ordnance Corps Directorate as guideline to improve through an accurate perception of what really impacts the inventory management in stores within the Army.

There are possible avenues that can be explored in future research on the inventory management performance in the context of Malaysian military. It would be interesting to see if future studies will be able to explain whether the organisational performance (financial or non-financial) is positively related to current inventory management practices. This research has identified most of the significant factors that affect current inventory management practices in a given setting. The finding of when the factors and performance become (non) compensatory will be useful. At this point we already knew which factors are critical and essential for successful execution of the inventory management at 91 COD. Future research should also consider whether the outcome, i.e. inventory performance of the Malaysian military is really affected.

Future research should also look into the use of modern inventory management tools in Malaysian military's inventory management. To do this, future studies should undertake comprehensive case studies on management accounting in practice. This case studies should enable researchers to help explain what type of inventory management tools are used by the Malaysian military and the rationales of using those tools. These are interesting issues to be pursued in future studies. The study on these issues would lead to a more thorough understanding of the concepts underlining the current study. It would also be interesting to see if the sample size can be increased and the length of study can be prolonged. A bigger sample size and longer data collection period may help to achieve more accurate results.

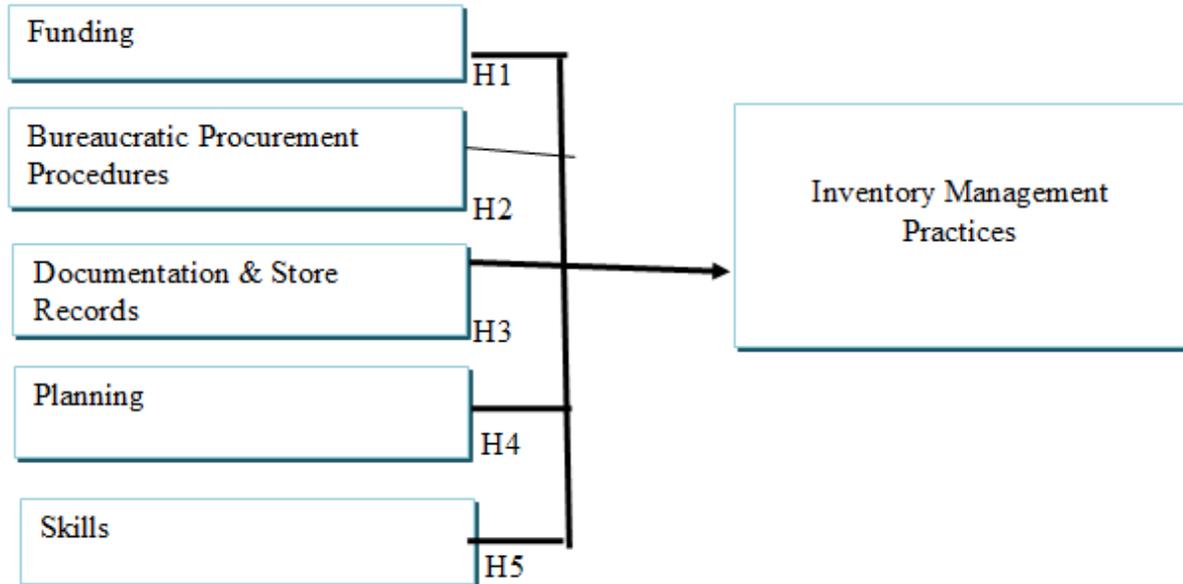
## **Methodology**

According to FED (M) 3038/10/80 (Pind 3/2010) stated that the number of employees in 91 COD are 26 officers and 285 other ranks, while the civilian working in 91 COD is 89. Therefore, the population size of employees for this study is 400.

Sampling technique used for this study is simple random sampling. This study was conducted by distributing questionnaires to employees regardless of their demographic differences. Respondents involved in this study comprises of officers, military personnel of other ranks and civilians working within 91 COD. This encompasses all levels of employees from top

management that review policy and make decisions involving funding and the budget, to the operators making the repairs and identifying what stock item is needed. The respondents also include middle level management that conducts planning and authorizes demands and supplies, and also the lower level management that handles the paperwork. All respondents are employees working in 91 COD, Batu Kentonmen Camp, Jalan Ipoh, Kuala Lumpur.

**Proposed Research Framework**



**Results**

**Correlation Analysis**

The correlation analysis was conducted to test the strength of relationship between variables in the study. Correlation analysis and regression analysis are related as both analyses uncover the latent relationship of variables. The correlation coefficient is a measure of linear association between two variables and the values are always between -1 and +1. a correlation coefficient of +1 shows that two variables are completely related in a positive linear sense while a correlation coefficient of -1 indicates that two variables are completely related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear relationship between the two variables. Using Pearson Correlation and Sig. (2-tailed approach), the findings of the correlation analysis are presented as follows:

**Table 1:** Correlation Analysis

		Planning	Bureaucratic	Documentation	Funding	Skills	Inventory
Planning	Pearson Correlation	1	.383**	.350**	.371**	.395**	.523

	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	196	196	196	196	196	196
Bureaucratic	Pearson Correlation	.383**	1	.586**	.585**	.605**	.386**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	196	196	196	196	196	196
Documentation	Pearson Correlation	.350**	.586**	1	.743**	.821**	.597**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	196	196	196	196	196	196
Funding	Pearson Correlation	.371**	.585**	.743**	1	.752**	.525**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	196	196	196	196	196	196
Skills	Pearson Correlation	.395**	.605**	.821**	.752**	1	.670**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	196	196	196	196	196	196
Inventory	Pearson Correlation	.523**	.386**	.597**	.525**	.670**	1**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	196	196	196	196	196	196

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

The table presents the Pearson correlation coefficient of the study, its significance value, and the sample size that the research and calculation is based on. Table 1 shows that there is a significant positive relationship between Planning and Inventory Management where  $r = 0.523$ ,  $p < 0.01$ . The result also indicates that there is significantly weak relationship between Bureaucratic Procurement Procedure and Inventory Management where  $r = 0.386$ ,  $p < 0.01$ . There is significant positive relationship between Documentation & Store Records and Inventory Management where  $r = 0.597$ ,  $p < 0.01$ . There is positive significant relationship between Funding and Inventory Management where  $r = 0.525$ ,  $p < 0.01$  and finally there is also positive significant strong relationship between Skills and Inventory Management where  $r = 0.670$ ,  $p < 0.01$ . Overall, the results show that all factors have significant positive relationship towards Inventory Management.

### **Regression Analysis**

Regression analysis was performed to determine the relationship between the dependent variable and independent variables based on the relationships. The analysis also estimates the

parameter value that is used to develop regression equation. From the regression analysis, the statistical significance of the alternative hypotheses were evaluated by the  $p$  value of less than 0.05 whereby the null hypotheses would be rejected. The result of the analysis is presented below and the discussion is be presented in the next chapter.

**Table 2:** Regression Analysis Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.842 <sup>a</sup>	.709	.701	.31307	.709	90.200	5	185 <sup>a</sup>	.000

Table 2 shows the  $R$ ,  $R^2$ , adjusted  $R^2$ , and the standard error of the estimate, which are used to establish how well a regression model fits the data. The "**R**" column represents the value of  $R$ , the *correlation of coefficients*.  $R$  can be considered to be as one measure of the quality of the prediction of the dependent variable as in this case, Inventory Management.  $R$  also represents the strength of the association between the independent and dependent variables. The nearer  $R$  is to the value one, the stronger the linear association is while if  $R$  equals to zero, in that case there is no linear association between the dependent variable and independent variable. A value of 0.842 indicates a high level of prediction hence stronger linear association between the independent and dependent variables of the study. The "**R Square**" column represents the  $R^2$  value which is the coefficient of determination that is the variable that explain the variation in the regression. Based on the table above, responsiveness explained 701% of the variance of the inventory management.

**Table 3:** Relationship between Independent Variables and Dependent Variables Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.171	.213		.804	.423
	Planning	.383	.048	.341	7.943	.000
	Bureaucratic	-.046	.053	-.044	-.873	.384
	Documentation	.167	.059	.197	2.844	.005
	Funding	.042	.057	.045	.735	.463
	Skills	.423	.062	.487	6.817	.000

a. Dependent Variable: Inventory Management Practices

Table 3 shows whether there is any significant relationship between the independent variables and the dependent variable which is the Inventory Management. If  $p < 0.05$ , it shows that the significance level is at 5%. Generally, it is the accepted point to reject the null hypothesis. The

result from Table 4.15 above shows that there is significant relationship between Inventory Management and three independent variables namely Planning ( $B = .383, p = .000$ ), Documentation & Store Records ( $B = .167, p = .005$ ), and Skills ( $B = .423, p = .000$ ). On the other hand, the other two independent variables which are Bureaucratic Procurement Procedure shows ( $B = -.046, p = .384$ ) and Funding ( $B = .042, p = .463$ ) indicate no significant relationship with Inventory Management. The most significant contributor towards Inventory Management is Skills ( $B = .423, t(185) = 6.817$ ) followed by Planning ( $B = .383, t(185) = 7.943$ ) and finally Documentation & Store Records ( $B = .167, t(185) = 2.844$ ).

## Conclusion

The study reveals that only documentation and store records, planning and skills have significant relationship to inventory management practices at 91 COD. The factors of funding and bureaucratic procurement procedure do not have significant relationship to inventory management practices at 91 COD.

The study has been carried out in the manner deemed as effective as possible to ensure that the objectives of the study were successfully achieved. However, the study has several limitations that deserve to be mentioned so that these issues can be addressed in future research. The sample size for the study is small as compared to other studies in this context and the study period is rather limited. The time available to conduct the overall study was limited. In effect, there were only 7 days to conduct the survey, and there is no sufficient time for respondents to answer decisively.

Apart from that, the study also did not take into consideration additional information like the organisation's philosophy and periodic inventory report which normally contains the performance review of the organisation. In addition, the lack of previous studies poses difficulties to obtain literature on the topics. The inventory management is not new; however, only a few articles, journals and studies have been conducted on this topic in Malaysia, particularly in the military environment.

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