



**WAREHOUSE MANAGEMENT SYSTEMS (WMS) AND BUSINESS PERFORMANCE:
AN EXPLORATION OF POTENTIAL IMPACT OF WMS IMPLEMENTATION
ON WAREHOUSE**

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ABSTRACT

This paper aims to portray the possible impact of the implementation of a warehouse management system on business performance. It is a case study on 'Delta Pharmaceuticals', in Botswana. It aims to outline if an adaptation of a warehouse management system can influence and effect change to Delta's supply chain warehouse operations. It is a descriptive research and the strategy used was of a survey approach. The target population comprises of 30 of Delta's personnel and the sample size derived is 16 employees. Questionnaires were used for data collection.

KEYWORDS

Warehouse, Warehouse Management System, Delta Pharmaceuticals, Business Performance, Supply Chain etc.

INTRODUCTION

Warehousing plays a vital role in the overall supply chain process and due to this, warehouses are regarded as more than a place where inventory is stored (Gourdin, 2006;&More, 2016). Warehousing being a critical function of logistics, is in today's setting of modern supply chains, a key aspect and has a significant role in the success or the failure of organisations today (Frazelle, 2002). Kearney (2004) adds to this by outlining that if one were to thoroughly look at the break down of operational costs of a certain company, warehousing would contribute to about 20% of logistics costs. On top of these costs, warehouses have continuously been faced with various challenges that include; supply chains that are becoming more lean and integrated, globalized operations, ever-demanding customers and technology innovations that are vastly changing (Ramaa, Rangaswamy, & Subramany, 2012). As a means to adapt to these challenges companies are coming up with innovative approaches that include internet technology (IT) in their warehousing operations such as warehouse management systems (Min & Diew, 2010). A warehouse management system is a database driven internet-technology tool used to improve the efficiency of the warehouse by coordinating warehouse activities and maintaining accurate inventory by recording warehouse transactions (Shiau & Lee, 2009).

PROBLEM STATEMENT

In this era of globalisation, companies are looking for ways to have some competitive advantage in their industries. Implementing the use of a well-managed warehouse system can assist companies to properly moderate their levels of inventory and increase in accuracy, track their inventory, reduce labour costs and ensure proper maintenance as well as housing of stock (Karimi & Namusange, 2014). A management of this kind in the warehouse can ensure that, there is provision of ease and convenience to the suppliers and distributors to keep track of inventory and its maintenance (Harold, 2002). Thus, warehouse management can be very beneficial in storage and maintenance of inventory, where it has been shown by different studies that an efficient warehouse management system is crucial to an organisation's operational performance (Liao, 2007; Kerridge, 2006;& Larson, 2004).

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Today, many organisations have however failed to take seriously the issue of warehousing into consideration, storage of goods and distributions from the same warehouses are haphazardly done, that is without any systematic approach. This is due to the inadequate incorporation of modern information technology which come with good warehouse management systems which has resulted to inaccuracy order management techniques which tends to deal a major blow to many organizations as a whole (Ackerman, 2008;& Cooper, 2002).Delta Pharmaceuticals is one organisation that is faced with these problems of inventory management, stock taking inaccuracies and inefficient cycle and lead times. Delta Pharmaceuticals should note that Information Technology (IT) has been identified as a major influencer in the business environment today (Bartezzaghi 2003) and that the problems they face are those that can be eradicated through the proper implementation of WMS and an incorporation of modern technology in their warehousing operation.

OBJECTIVES OF STUDY

- To outline what a warehouse management system is concerned.
- To describe the need for a warehouse management system in Delta Pharmaceuticals operations.
- To highlight the benefits of using a warehouse management system for Delta Pharmaceuticals.

LITERATURE REVIEW

Warehouse Management System

The warehousing function amounts up to 2-5% of the cost of sales of a corporation and this together with the highly competitive global business environment of today has prompted organizations to emphasize on return on assets (ROA), and hence minimizing warehousing costs has become an important business issue (More, 2016).More (2016) goes on to say that as a result there has been an increase in the number of firms who have resorted to automating their basic warehousing functions to achieve the increase in throughput rates or inventory turns required for their warehousing operations to be cost effective. The deployment of technology and warehouse management systems has been one of the options for many organisation as a means of attaining a competitive advantage (Lazarus, 2000).

According to More (2016) when an organisation takes up implementing a warehouse management system, the organisation should be prepared to change its entire process or a significant part of its process and system storage. The decisions are based on alternatives spanning from conventional warehousing racking and shelving with forklift or even manual operations through to fully automated systems with conveyors and automated guided vehicles and from carousels to robotic applications. A WMS systems operates with a warehouse control system (Ramaa, Rangaswamy, & Subramany, 2012).The primary function of a warehouse control system is to receive information from the upper level host system, being the warehouse management system, and translate it for the daily operations. According to Nynke, Koster, & Rene (2002) there are 3-warehouse management systems that organisations can choose from based on the functionality of the warehouse control system. The **first** type is a Basic WMS. The Basic WMS system is apt to support stock and location control only. It is mainly used to register information. Storing and picking instructions may be generated by the system and possibly displayed on RF-terminals. The warehouse management information is simple and focuses on throughput mainly. The **second** is the Advanced WMS. The Advanced WMS above the functionality offered by a basic WMS is able to plan resources and activities to synchronize the flow of goods in the warehouse. The WMS focuses on throughput, stock, and capacity analysis. The **third** type of warehouse management system is the Complex WMS. Nynke, Koster, & Rene (2002) mention that there is complete warehouse optimization, were information is available about each product in terms of where it is located (tracking and tracing), what is its destination and why (planning, execution and control). Further, a complex system offers additional functionality like transportation, dock door, and value added logistics planning which help to optimize the warehouse operations as a whole.

ANALYSIS OF DATA AND FINDINGS

The data was gathered with questionnaires. The questionnaires were issued out to employees working at Delta Pharmaceuticals in its warehousing function. Sixteen questionnaires were distributed but only 15 were returned. The

data collected is presented under its relevant section, question by question. There are two sections (A and B) section A employed only the Likert Scale whereas section B used both the Likert Scale and a series of yes or no questions.

Section A: Information about warehousing activities / functions. Participants were asked to rate each activity based on their perception level of how the warehouse activity is carried out. The Likert scale ranged from 1 to 5 where: 1 was equivalent to very poor, 2 poor, 3 moderate, 4 good and 5 very good.

Research Question One: What is A Warehouse Management System Concerned?

- **Dispatching**

Question 6: Perception on the overall function of dispatch.

Table-1

dispatch overall					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	1	6.7	6.7	6.7
	moderate	5	33.3	33.3	40.0
	good	7	46.7	46.7	86.7
	very good	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 6.7% view the overall dispatch function as poor, 33.3% indicate that is just okay while 46.7% view it as good and 13.3% very good. Though the survey has indicated that most of the respondents view the dispatch function as satisfactory there are more areas in which it can be better improved for the function as a whole to be optimised though the lack of technology employment. According to Lazarus (2000) technology is the most important tool for enterprises to keep their competitive advantage and this can benefit Delta as most of their operations are manually done resulting in slower throughput times within the department’s activities.

- **Receiving**

Question 6: Perception on the overall receiving activities.

Table-2

receiving overall					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	2	13.3	13.3	13.3
	moderate	5	33.3	33.3	46.7
	good	4	26.7	26.7	73.3
	very good	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey, 13.3% perceived the overall receiving function as poor, 33.3% as moderate, 26.7 % as good and 26.7% as very good. Based on the findings the whole of the receiving function is operated well despite it not having any technological aid in some of its key activities such as delivery inspections and product tracing within their receiving bay. According to Cross (2009) more efficiency and flexibility can be attained with the use of RFID technology and bar codes to stimulate more fluid operations within the warehouse. The employment of such could help the receiving department process their tasks faster and efficiently and get a higher overall rating based on the scrutiny from the senior management.

- Storage

Question 3: Perception on the overall storage activity.

Table-3

storage overall					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	2	13.3	13.3	13.3
	moderate	6	40.0	40.0	53.3
	good	4	26.7	26.7	80.0
	very good	3	20.0	20.0	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 13.3% deem the overall storage activity to be poor, 40% find it moderately done, 26.7% as good and 20% as very good. This indicates that the storage function is less of a problem within Delta is warehousing function. Though the majority of respondents see no major concern with the storage function and how it is carried out, it is imperative that inventory is packaged and stored properly to avoid any inconveniences when employees performing picking tasks and stock taking tasks carry out their duties. Nolan (2017) points out that there are times when inventory is damaged because it will be left on the floor waiting to be put away in racks.

- Stock Taking

Question 6: Perception on the overall stock taking process.

Table-4

stocktaking process overall					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	3	20.0	20.0	20.0
	moderate	2	13.3	13.3	33.3
	good	6	40.0	40.0	73.3
	very good	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey, 20% of the respondents deem the stock taking process to be poor, 13.3% to be moderate, 40% to be good and 26.7% to be very good. Only 20% of the respondents said it was poor this might be because of their exposure to the activity and it not employing any technology to assist with the process. The majority of the respondents 66.7% viewed it as good or very good respectively; this indicates that though it is manually done there seldom are problems that arise because of stock taking not being implemented properly.

Research Question Two: Need for a Warehouse Management System in Delta Pharmaceutical's Operations

Question 1: Perception on the lead times attained

Table-5

lead times					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	3	20.0	20.0	20.0
	poor	2	13.3	13.3	33.3
	moderate	3	20.0	20.0	53.3
	good	7	46.7	46.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 20% of the respondents view the lead times attained by the warehouse function as very poor, 13.3% as poor, 20% as moderate and 46.7% as good. The findings on the survey show that system doesn't optimise the productivity levels of the employees to enhance the lead times for customer orders as more than half of the respondents perceive that they are unable to deliver products to customers at the time they would want to. According to Nolan (2017) customers are supposed to be able to get their orders within 2 hours but are sometimes unable to, because it takes longer for their orders to get to the dispatch area for them to be documented in the trip sheet. This occurs with orders that are within Gaborone.

Question 2: Perception on the use of space.

Table-6

use of space					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	2	13.3	13.3	13.3
	moderate	4	26.7	26.7	40.0
	good	5	33.3	33.3	73.3
	very good	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 13.3% of the respondents view use of warehouse space to be poor, 26.7% to be moderate, 33.3% to be good and 26.7% to be very good. The findings reveal that less than one fifth are unsatisfied with how space is used within the warehouse while more than 80% are either satisfied or happy with how the space is used in the warehouse. According to Frank (2017) use of space is determined by employees in the warehouse and whatever space is available is then utilised. Gupta (2003) points out that the use of warehouse management systems eradicates the problems that may arise because of warehousing space as it manages and controls put away and storage allocation functions.

Question 3: Perception on the overall productivity levels of the warehouse function.

Table-7

overall productivity of warehouse function					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	3	20.0	20.0	20.0
	moderate	3	20.0	20.0	40.0
	good	5	33.3	33.3	73.3
	very good	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 20% of the respondents view, the overall productivity levels of the warehouse function to be poor, 20% to be moderate, 33.3% to be good and 26.7% to be very good. The survey indicates that more than half of the respondents believe that the system is able to help them carry out their tasks to a satisfactory level on a daily basis.

Research Question 3: How Can the Warehouse Management System Benefit Delta Pharmaceuticals?

Question 1: What is the level of technology usage in Delta's daily operations?

Table-8

use of technology in daily operations					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	low	4	26.7	26.7	26.7
	medium	7	46.7	46.7	73.3
	high	4	26.7	26.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 26.7% of the respondent said that the level of technology used in the warehouse is low, 46.7% medium or average and 26.7% high. The survey indicates that there is an above average level of technology employment in Delta’s warehouse activities. However, the only form of technology that Delta uses in their warehousing function is desktop computers used as workstations for entries of data concerning stocktaking, checking stock availability, invoicing, intra-organizational communication etc. Karimi & Namusange (2014) denote that for a warehouse to be deemed to be automated or partly automated, information technology such as RFID, bar codes scanners, GPS technology e.t.c should be used in some of the main warehouse activities. Delta doesn’t employ most of these technologies.

Question 2: Would the use of internet technology yield better results in Delta’s operations?

Table-9

would use of internet technology yield better results in deltas operstion					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	12	80.0	80.0	80.0
	no	3	20.0	20.0	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 80% of the respondents said that Delta’s operations would benefit from use of IT while 20% said it would not. It is possible that the 20% of the respondents are unfamiliar with how IT can be implemented to enhance the productivity or performance of an organisation is warehousing function. According to Karimi & Namusange (2014) the use of appropriate technology by organisations can lead to the organisation obtaining competitive advantage over its competitors. Technology improves warehousing activities by reducing labour centred tasks and automating tasks that were manully processed earlier.

Question 3: How frequently are medical returns expected?

Table-10

how frequently are medical returns expected					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	high frequency	5	33.3	33.3	33.3
	less frequently	10	66.7	66.7	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation

From the survey 33.3% of the respondents said that products are returned at a high frequency while 66.7% of the respondents said that products are returned from customers less frequently. The findings indicate that the system has little impact on trying to mitigate the problem of product returns from customers. Nolan (2017) pointed out that trip sheets are prepared by one employee who is prone to committing errors when assigning customer orders destinations. Furthermore problems can arise due to products not having identification tags or tracking technology in their packaging which help prevent consignments being mixed up when waiting to be delivered.

Question 4: Does the current system show product returns?

Table-11

does systems how product returns					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	3	20.0	20.0	20.0
	no	12	80.0	80.0	100.0
	Total	15	100.0	100.0	

Sources: Authors Compilation



The survey shows that 20% of the respondents said that the current system employed by Delta shows product returns, while 80% said that it doesn't show product returns. Frank (2017) & Nolan (2017) point out that when products are returned back from customers they are put away in a designated space where they await to be credited back into the system. The system doesn't show or indicate that the products are available within the warehouse until the responsible employee checks them in by entering it into the system through the use of the computer.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The importance of warehouse Management System is vital and so much in need in the present days. It was noted that the overall dispatch function performance is satisfactory and the lack of technology usage hinders some activities like order picking and order checking to be carried out effectively. It was also evident that the system does not plan or schedule deliveries for customer orders.

It was also observed that the receiving department manually tracks and identifies orders in the receiving bay and no form of technology is used to track deliveries in the receiving bay. The stock taking process of Delta Pharmaceuticals is manually carried out (performed). The inventory system employed by Delta Pharmaceuticals does not alert or signal to the warehousing function when inventory is about to expire. The lead times attained by Delta Pharmaceuticals when delivering customer orders are not consistent with the standard times they have set in place for customer deliveries. Delta Pharmaceuticals has a low level of technology usage in its daily operations.

Delta Pharmaceuticals still experience regular amounts of medical returns from customers. Most employees believe that the use of technology would yield better performance of the warehouse function.

Recommendations

Based on the conclusions, it is recommended that Delta Pharmaceuticals should integrate tracking and identification technology to assist the receiving department to help them easily locate orders. Further, it was recommended to incorporate bar code scanning technology to reduce the time taken for products to be added into the system, which will improve the process of stock taking efficiently. The system should be changed which alerts the relevant warehousing function when inventory is about to expire to reduce issues of obsolescence. The system should be upgraded which allows for real time tracking so that inventory is accounted for at all times when it is within the warehouse. It was also necessary to upgrade their system to incorporate warehouse management functions like task management and stock put-away to improve labour productivity. The recommendation put forward together with technological interventions in warehouse management system would improve the overall warehouse function thus improves business performance.

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**A STUDY ON EDUCATIONAL INFRASTRUCTURE FACILITIES PROVIDED BY
GOVERNMENT AND PRIVATE SCHOOLS IN NAGALAND WITH SPECIAL
REFERENCE TO DIMAPUR**

Sumanta Kumar Mahapatra⁴ Dr. Horen Goowalla⁵

ABSTRACT

Just like proper social and economic infrastructure facilitate economic growth and development by augmenting investment, availability of proper educational infrastructure at educational institutions helps in the effective teaching learning process. It not only supports the teaching-learning but also improves the performance of teachers and students. School infrastructure in broader sense includes all the physical and human resources available in the school that directly or indirectly helps the all-round development of pupils. The present study was conducted under objectives, to make a comparative study between the physical infrastructure facilities provided by Government schools and Private schools in Dimapur district of Nagaland

INTRODUCTION

School infrastructure facilities play an important role in the teaching learning process. The all-round development of a child cannot be achieved without proper school infrastructure. Teaching learning will be effective in the presence of better educational environment or school infrastructure. To disburse quality education, the schools need to improve their infrastructure facilities. It includes all those physical facilities we can see in the school such as school compound, building, classroom, sitting facility, ventilation and light provision, white or blackboard, electricity, sanitation, drinking water, transportation, hostel, computer lab, science lab, library, playground and sports facility, first Aid, career guidance, use of modern technology and teaching aids in teaching etc. In broader sense, it also includes the human resources of the school like school administrator, principal, teachers, office staffs etc. But the present study only considers the physical infrastructure of government and private schools in Dimapur district of Nagaland and excludes the other part i.e. human resources of school.

Researchers have found that improvement in school infrastructure has positive impact on performance of both teachers and student in many ways. Teachers' sincerity, accountability and retention improve with the improvement of school infrastructure. School environment or infrastructural facilities and location has direct relation with retention of teacher in the school (Buckley, Schneider, and Shang, 2004). The Job satisfaction of teachers also partly depends on the school infrastructure facilities in which they working (Betty A. Rodney, T. Ogawa, Dena S. and Casia F. 2010). Poor infrastructure facility at school affects the performance of teachers and their health. Students' interest, sincerity, achievement and accountability depends on school environment, sincerity, and quality of teachers.

STATEMENT OF PROBLEM

AS school infrastructure plays very important role for both teachers and students in the teaching-learning process, the present study is to analyse and compare the physical infrastructural facilities between government and private schools in Dimapur district of Nagaland. The research topic is worded as 'A Comparative Study on Educational Infrastructure Facility Provided by Government and Private Schools in Nagaland: With Special Reference To Dimapur District.

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OBJECTIVE OF STUDY

- To analyze and compare the infrastructure facilities provided by government schools and private schools in Dimapur district of Nagaland.

HYPOTHESIS OF STUDY

H₁: There is no significant difference between infrastructure facility of Government and Private running schools.

METHODOLOGY OF STUDY

The study is a explorative types of research based on primary data collected by survey methods by administering questionnaire to school principals or administrators through personal visit. So a stratified sampling method was used for the selection of sample for collection of data. 16 government schools, 64 private schools and 80 schools out of 179 schools from all 5 educational clusters under Dimapur district of Nagaland have responded the questionnaire.

DISCUSSION OF STUDY

Table-1: Types of Building for Schools

Building Types	Government		Private		Total	
	Number of Schools	In Percentage	Number of Schools	In Percentage	Number of Schools	In Percentage
Tin Roof	11	68.75	10	15.62	21	26.25
RCC Single or Double Storey Building	3	18.75	19	29.69	22	27.5
RCC Multi Storey Building	0	0	28	43.75	28	35
Tin Roof &RCC Single or Double Storey Building	2	12.5	7	10.94	09	11.25
Total	16	100	64	100	80	100

Sources: Field Study

Table-1 shows that 68.75% of the surveyed government schools, 15.62% of the private schools and 26.25% of the total schools are operating in tin roof building. 18.75% of the surveyed government schools, 29.7% of the private schools and 27.5% of the total schools are operating either in single or double stored building. There is no government school having multi-storey building where as 43.75% of the private have multi storey building. 12.5% of the surveyed government schools, 10.94% of the private schools and 11.2% of the total schools are operating in both tin roof and RCC building.

Table-2: Schools Library Facility

Library	Government		Private		Total	
	Number of Schools	In Percentage	Number of Schools	In Percentage	Number of Schools	In Percentage
Library with Sufficient Books	1	6.25	28	43.75	29	36.25
Library without Sufficient Books	3	18.75	14	21.875	17	21.25
No Library at all	12	75	22	34.375	34	42.5
Total	16	100	64	100	80	100

Sources: Field Study

Table-2 shows that 25% of the government schools 65.5% of the private schools have library. On the other hand, 75% of the government schools, 34.375% of the private schools and 42.5% of all the surveyed schools have no Library at all. K.V. Sewak is the only government school managed by central government and 43.75% of the private schools have library with sufficient books.

Table-3: Schools with Computer Lab

Computer Lab	Government		Private		Total	
	Number of Schools	In Percentage	Number of Schools	In Percentage	Number of Schools	In Percentage
Yes with Internet	1(KVS)	6.25	42	65.6	43	53.75
Yes without Internet	0	0	18	28.1	18	22.5
No Computer Lab	15	93.75	4	6.3	19	23.75
Total	16	100	64	100	80	100

Sources: Field Study

Table-3 shows that none of the government schools run by state govt. and 93.7% of the private schools have Computer Lab. Computer Lab with internet facility. K.V. Project Sewak is the only government school (Central govt.) and 65.6% of the private schools have Computer Lab with internet.

Table-4: Overall Infrastructure Score by Government and Private Schools

Infrastructure Scores	Government		Private		Total	
	Number of Schools	In Percentage	Number of Schools	In Percentage	Number of Schools	In Percentage
0-5	14	87.5	1	1.56	15	18.75
6-10	1	6.25	33	51.56	34	42.5
11-15	1	6.25	25	39.06	26	32.5
16-20	0	0	5	7.82	5	6.25
Total	16	100	64	100	80	100

Sources: Field Study

(The infrastructural score is calculated by the researcher considering all factors like school compound, building, classroom, sitting facility, ventilation and light provision, white or blackboard, electricity, sanitation, drinking water, transportation, hostel, computer lab, science lab, library, Auditorium, school canteen, playground and sports facility, first Aid, career guidance cell, NCC or Scouts and guides etc.)

Table-4 shows that 87.5% of the government schools and only 1.56% of the private schools have 0 to 5 infrastructure scores. Only 6.25% of the government schools and 51.56% of the private schools have 6 to 10 infrastructure scores. None of the state government schools but Central School Sewak and 51.56% of the private schools has 11 to 15 infrastructure scores. None of the government schools (neither central nor state govt.) but 7.82% of the private schools have 16 or above infrastructural scores. Again, the mean infrastructure score of government schools is 3.5 whereas the mean infrastructure score of private schools is 10.65.

Table-5: Chi-square Test

Variable	Calculated Chi-Square Value	Degree of Freedom	Table Value at 5% level of significance	Relation between Calculated Value and Table Value
Overall Infrastructure Score	62.0909	3	7.815	Calculated Chi-square Value > Table Value

Sources: Primary Data Analysis



By using **Chi-square test** for the overall infrastructure score, the estimated value is 62.0909, which is more than the table value 7.815 with degree of freedom 3 at 0.05 level of significance (95% confidence interval). Therefore, the null hypothesis i.e. there is no difference between the infrastructure facility in government and private schools in the study area is rejected. In other words, alternative hypothesis i.e. there is no difference between the infrastructure facility in government and private schools in Dimapur is accepted. Again looking to the mean infrastructure scores of government (3.5) and private schools (10.65), it is concluded that the infrastructure facilities in private schools are far better than government schools in Dimapur district of Nagaland.

FINDINGS OF STUDY

- At age of information and technology in the 21st century, no government schools owned by state government in Dimapur has computer lab facility for students whereas above 90% of the private schools have computer lab facility for students.
- Majority of the government school buildings are consist of tin roofs whereas Majority of the private school buildings are consist of RCC Multi storey buildings.
- 3/4th of the government schools have no library facility where as nearly 2/3rd of the private school have library.
- There is significant difference between the overall infrastructure scores of private schools and government schools. The infrastructure facilities in private schools are far ahead of the government schools in Dimapur district.
- The infrastructure facility of Central school better than state government run schools.

CONCLUSION

From the present study, it can be concluded that the infrastructure facilities in state government run schools is very poor in relation to not only private schools as well as the central government run schools. It is inadequate to satisfy the basic need for the teaching-learning process. Lacks of proper infrastructures create negative impact on the motivation of the students and teachers as well as their performance. So it is an urgent need of the time that the government needs to think wisely, plan accurately and act quickly to improve the infrastructure facility of government schools it can attract and retain brighter students and they can able to compete with private schools.

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