A PROJECT REPORT

(18MBAPR407)

on the Topic

A STUDY ON INVENTORY MANAGEMENT OF T E CONNECTIVITY, BENGALURU

By

Mr. HEMANTHA RAJU M R

USN: 1CY18MBA18

MBA 4th Semester

Submitted to VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
in partial fulfillment of the requirements for the award of the degree of
MASTER OF BUSINESS ADMINISTRATION

Under the Guidance of

INTERNAL GUIDE
Dr.Prakash B Yaragol
Professor
CMR Institute of Technology

EXTERNAL GUIDE
Mr. Nagesh S H
H R Manager
TE Connectivity,Bengaluru

DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

C M R INSTITUTE OF TECHNOLOGY

#132, AECS Layout, ITPL Main Road, Kundalahalli,
BENGALURU-560037

Batch 2018-20

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CERTIFICATE

This is to certify that **Mr. Hemantha Raju M R** bearing USN **1CY18MBA18** is a bonafide student of Master of Business Administration Programme of the Institute (2018-20 Batch), affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on Inventory Management of TE Connectivity, Bengaluru** is prepared by him under the guidance of **Dr. Prakash B Yuragol** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi in Karnataka.

Signature of Internal Guide

Signature of HoD
Head of the Department
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Signature of Principal
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Evaluators

1) Name of external evaluator — Signature with Date

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February 17, 2020

To Whome It May Concern

This is to certify that **Mr. Hemantha raju M R (USN 1CY18MBA18)** a student from **CMR Institution Of Technology,Bangaluru** has completed his project on **"Inventory Management and standard cost"** Duration from January 2nd to February 16th 2020

We found his conduct to be good.

I am sure he will keep up the excellent job, Wishing him all the best in future.

for TE Connectivity India Pvt.Ltd.

Nagesh S H
Manager - Human Resources

DECLARATION

I, Mr. Hemantha Raju M R hereby declare that the Project report entitled A Study on Inventory Management of TE Connectivity, Bengaluru is prepared by me under the guidance of Dr.Prakash B Yaragol faculty of MBA Department, CMR Institute of Technology and external assistance by Mr. Nagesh S H, H R Manager, TE Connectivity, Bengaluru. I also declare that this project work is towards the partial fulfillment of the university regulations for the award of degree of Master of Business Administration by Visvesvaraya Technological University, Belagavi. I have undergone a summer project for a period of six weeks. I further declare that this project is based on the original study undertaken by me and has not been submitted to any other University/Institution for the award of any degree/diploma.

Place:

Date:

Mr. Hemantha Raju M R

USN:1CY18MBA18

ACKNOWLEDGEMENT

I have been fortunate enough to get good timely advice and support from a host of people to whom I shall remain grateful.

I take this opportunity to express my heartfelt thanks to **Dr. Sanjay Jain,** Principal, CMR Institute of Technology, Bangalore, for his support and cooperation to undertake and complete the project work.

I am extremely thankful to **Prof. Sandeep Kumar,** Head of the Department of Management Studies and Research, CMR Institute of Technology, Bangalore, for his advice and support throughout the completion of the project work.

It gives me immense pleasure to record my thanks to my Internal Guide, **Dr.Prakash B Yaragol**, CMR Institute of Technology, Bangalore, for his valuable guidance and untiring support and cooperation in completing the project work.

I acknowledge the insights provided by my External Guide, **Mr.Nagesh S H**, H R Manager,TE Connectivity, Bengaluru which helped me to a great extent in completion of the project work.

And finally, there is deepest of thanks for the patience and cooperation of the family and friends, without whom the endeavour would not have been possible.

Mr. Hemantha Raju M R

USN : 1CY18MBA18

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EXECUTIVE SUMMARY

The study was undertaken at **TE connectivity** Bangalore for duration of 6 weeks, the topic chosen for the study "**A Study on Inventory Management of T.E. Connectivity, Bengaluru. I**n-depth study was done by inspecting and inquiring the inventories **TE connectivity** and its current assets & liabilities schedule

TE Connectivity is a business concerned with the production of connectors and controls, running offices nationwide and spread around the world. The study's primary objective is to investigate whether the company handles its day-to-day operations successfully in relation to inventories that represent the firm's reputation. In this thesis I choose exploratory science,

it helps to analyze the facts and figures, secondary data such as annual report, official website, prospectus etc. have been used for my research. One of the major issues was inventories produced by **TE** may have few defective connectors and sensors which was rejected by the customers, this will affect the company's reputation similarly the products without defects will remain idle by generating excess profit/revenue. The study on inventory, standard cost displays the total output of the firm manufacturing products to meet its daily obligation, the usage of inventory by the customers are satisfactory and was kept idle. Most of the inventories have been sold to meet the objective & acquire as many as customers attention towards procuring the products and also the deals made by them, **TE** is not only operating in india but across the world which prove in meeting long term relation and becoming the global leader.

The study on inventories reveals the major competitors of **TE** in manufacturing sensors and connectors also generating revenues. Analyzing the amount of funds used in inventories and enough sales, the company also takes necessary steps in clearing the day to day stocks and make optimum use of funds.

CHAPTER 1

INTRODUCTION

INTRODUCTION

Finance is the management of money which includes financial activities like investing, budgeting, savings, forecasting etc. a wide range of topics people in concern with are cash flow, yield, inventory management, generating profit dividends etc.

Hence finance has now become one of the important functions which will not be inseparable part of our daily lives in other words it's an arrangement of funds in association with diverse exercise by this way we can state the fund is very much the same as the blood for the survival of the business, inventories and sources of incomes are the nuts and blood of the company, hence every individual will analyze the financial statement of a company and then make investment on the same.

INTRODUCTION OF THE STUDY

The study is undertaken at TE connectivity Bangalore for duration of 6 weeks, the topic chosen for the study is "Inventory, standard cost" a in-depth study was done by inspecting the inventories and inquiring them at TE connectivity & its current assets and liability schedule.

TE connectivity is a company which is associated in manufacturing the sensors and connectors which operate globally and the branches are situated around the world.

I learnt many topics & also good experience working on the project, this gave me all the insights on working environment of the organization especially about daily routine of the running company & also helped me to understand the facts and factors of the company & also helped me with enormous amount of knowledge which will have a positive vibes with pleasant environment in my career.

1.1 INDUSTRY PROFILE

The manufacturing sector is a goods or the products produced in industries it comprises of establishments engaged in the chemical, physical & mechanical new products to components both types of forms included in manufacturing units. It is merchandise for use or sale of using labor; it is closely concerned with engineering & industrial design which is engaged in converting goods substance into innovative, new products. It can be physically or mechanically; company has plants that produce goods for end users & final consumption by public.

Today we will discuss about the sensors and connectors manufacturing industries, it serves over 140+ countries, 15000 patents worldwide& 80000+ employees and 100+ global manufacturing and engineering centers.

TE defines the landscape of customers and partners, drive the application of customers to build and serve that they create products for. They are established and into B2B sharing thought with the content of leadership. they also use the industries section as a direct lens to product.

The 4 main focus areas are:

1) Solutions: challenges and opportunities for customers through case studies.
2) Profiles: displaying human capital
3) PV's: industry development and other areas of high impact
4) Applications: recurring support for filling and focus on provided products

Manufacturing is a primarily shaped and placing of stock goods. It is required in different locations within a facility or within many locations within a facility or a resource network to have an even and planned course of production.

The concept of manufacturing units, stock or work-in-progress has been into extension from manufacturing systems to serve business and also the projects, by defining that all work has Occurred in the completion of production.

Market size

TE is currently focused on 80% of marketing source and 20% of sales sourced. TE believes in 5% of today's lead get correct sales channel & 100% of tomorrow's lead to the sales channel & business units to ensure lead that establishes service level agreement between sales and marketing

TE has 4 units in India, one is situated in Bangalore named TE park which focuses mainly on manufacturing appliances and data, another one is also situated in Bangalore it's a small unit named detush which manufactures mainly for automotive, defense and marine, two more units are situated in pune which manufactures connectors only for automotive.

At present TE products manufactured are 220 billion annually, $ 14 billion sales in the year 2018 and 75 years+ leading in connectivity

TE detach also won 1st price in India power connectors pvt ltd i.e. operation level, 2nd price in manufacturing sector, also the kaizen competition on 2018 in Chennai 0n 26thJuly 2018. Corrently TE revenue is USD $ 14 billion in the year 2018. And the numbers of employees are 80,000.

1.2 COMPANY PROFILE

TE connectivity is a company that deals with technology which is involved in manufacturing connectors and sensors products for the hard environment in a different type of industries like automotive, industrial, equipment data communication systems, defense, gas, medical etc.

It's an electronic industry which consist of 80,000 employees the revenue is USD$ 14 billion in the year 2018 this was a fiscal period and it was founded in the year 2007.

The main objective of TE connectivity is to become a global leader. It not only operates in India but also all around the world it also manufactures over 5 lakhs product that helps and protect the tide of power. The Headquarters is located at Switzerland, Schaffhausen, the net income is USD $ 2.42 billion in the year fiscal period of 2015.

The TE connectivity mainly deals with 4 segments namely:

1. Transportation.
2. Communication.
3. Industrial.

1. Transportation: This Category of Applications is a world pioneer in communication and sensor technology. Connector systems and terminal and connect system, relays are the key goods offered in the transport category. Apps this section goods etc that would with-hold conditions of difficulty, which are found in the following end markets.s

Automotive: It enables all the electronic factions of the car from the connectors, terminals and the alternate power system. 74% of the net sales, TE is one of the leading companies in providing of advanced automotive solutions. This uses the products for body and chassis systems, it provides all the driver information, infotainment solutions, battery technologies and etc.

- Commercial transportation: Also called as the industrial transportation, it offers a complete, hard and heavy trucks, agriculture 14%of the net sales TE deliver the products which are designed to hard environment and for highway automobiles like heavy trucks, construction, buses and other vehicles.
- Sensors: TE is the largest sensor manufacturing company in the world it is very much essential for the next generation. 12% of its net sales, TE offers high quality sensor products and are used by customers across many industries in aerospace and consumer apps.
- Application tooling: TE provides the products from the hand tools to automated production with all the equipment and machines, also the experienced field service.

2. Industrial Solutions: The industrial segments are the leaders of suppliers of product which connects and distributes the power and signals. The primary products terminal and connectors also the wires and cables, they are used in following markets they are:

- industrial equipment: 50% of the net sales. Products which are used in automation and are processed in control system like in robotics, human machine

also the power distributor. TE products are used by solar industry, rail products are used in high speed trains, light rail, elevators

- Aero space: oil gas defenses are 31%of net sales which provide components and for the aerospace industries for the initial stage of aircraft, defense products like ruggedized interconnects serving the military aviation and also the sonar apps.
- Energy: TE is recognized as a global leader in energy reduction and innovation, they also train the distributors from across the America latten on the portfolio product 19% of net sales. Products used by TEMs and companies in the electrical power industry and it include varied range of solutions for the power generation.

3) Communication Solutions:

- Appliances: The appliance strategic priorities are
    1. Accelerate share gains, defend and protect base.
    2. Reaches and acquire new customers.
    3. Expand into new apps.
    4. TEOA everywhere.
- Data and devices: TE offer broad product of a magnet connections, TE follows the wordings of Stephen hawking i.e." intelligence is the ability to adapt to change" before the segmentation it knows the market, know the customer, and plan according to it.

4) Independent business units: The only unit under this is a channel

- Channel: TE supports all the business unit assuming 300 distributors around the world. The vision, mission and the strategy to the business helps it to grow faster and serve the initial customers through improved quality of service and value. In future it focuses on providing extra ordinary services to the customers.

TE connectivity was named as a finalist for SAP EMEA. TE connectivity was previously named as TYCO electronics and recently renamed it as TE connectivity.

TE recently was recognized by SAP as a finalist for SAP EMEA awards in their respected business transformation category.

TE was located in swindon, the employees' donated their time and energy in united kingdom over the past few years to make treatment more reliable for hundreds of cancer patients.

In the month of October TE took part in CEATEC japan 2018 and the theme was 'exhibit' which means "engineering for tomorrow", also display how TE's innovative technology and products that help us to determine next-generation creativity in connected cars, factories, divorces etc.

TE also does various CSR activities i.e undertaking corporate social responsibility activities which will have a impact on the environment to grow business they use 28% of water, 31% of waste water discharge and 22% of energy usage. And the CSR activities are into 4 types namely:

1. Safer.
2. Sustainable.
3. Connected.
4. Productive.

1. **Safer:** engineer for sales future & reduce errors in transportation also in medical and home appliances, they ensure that the own work place is safe.
2. **Sustainable:** supporting customers for sustainability goals and also addressing them in environmental impact.
3. **Connected**: create connection with cables closer and reliable with high speed drive cloud.
4. **Productive**: enabling future by partnering with the customers also making factory smarter with customers output and releasing the internet of things.

TE connectivity is manufactures over 220 billion products annually and $ 14 billion sales in the year 2018 also 75 years+ leading in connectivity

Purpose: defines the TE.

Values: governs the TE.

Strategy: guides the TE.

Main purpose: partner premier for customers, superior returns on share holders, highly involved in employees.

Core values: integrity, accountability, teamwork and innovation.

Behaviors: developing talent and becoming leaders globally, minding what matters, thinking big and move fast.

TE defines the landscape of customers and partners drive the application of customers to build and serve that they create products for. They are established and into B2B sharing thought with the content of leadership. They use the industries section as a direct lens into product.

Objectives:

1. Traffic for industry.
2. Sharing the industrial content.
3. Subscribing the Email updates
4. Converting the product events.
5. Traffic @ te.com of industrial content by te.com.

Group activities are more profitable by outstanding performance, the business is transparent as they consider the small difference in analysts and estimates, the sales have rapidly grown over the last 4 months, forecasting the sales upwards over last 12 months.

The drawback is long-term resistance in stock price and blocked materials are not re-used, time to time replacing the stock, not trading the blocked stocks and materials. Not holding the stocks for more than 60 days.

Main objective:

1) Market leading connectivity.
2) Global leader.
3) Strong customer relation.
4) Product technology leadership.
5) Strong management team and employee.

The 100% of products have been spitted into:

- Automotive: 39%
- Data and devices 11%
- Aero, defense and oil 9%
- Commercial transportation 7%
- Sensors 6%
- Subsea 6%
- Energy 6%
- Appliance 5%

So the total percentage of the products produced is 100%.

The Industry Today

Market size

Stock market information:

- NYSE.

Concern's profile:

Name: TE Connectivity**.**
Industry: electronics**.**
Location: TE Park, near Hoodi, Bangalore-560048
Headquarters: Switzerland**.**
Website: te.com
Tell Number: 080 3319 5000

CORE VALUES:

- **Innovation:**

Our assembling units use the most recent innovation in assembling items that clutch global norms. We endeavour to raise our own benchmark, along these lines satisfying the needs of both visual intrigue and durable usefulness for our clients

- **Integrity:**

Adherence to good and moral standards; adequacy of good character; genuineness. The condition of being entire, whole or undiminished. A sound, healthy or impeccable condition.

- Accountability

"responsibility" as "the quality or condition of being responsible; a commitment or eagerness to accept responsibility for one's activities." Accountability doesn't mean discipline. Responsibility is an ability to acknowledge obligation regarding our own activities.

- **QUALITY POLICY**

TE connectivity defines quality as meeting and exceeding the customer needs and providing an extra ordinary customer experience.

TE connectivity is committed to delivering of an extra-ordinary customer through living 0ur their values, it also defines and connects quality at TE connectivity with the guidance of the strategy of the map and governance of our core values.The quality policy is further supported by quality principles.

TE connectivity quality objectives are:

- To provide the products free from defects and service
- Delivers identity and go beyond customer needs and expectation.
- Comply with the entire necessary and applicable customer statutory and regulatory requirement.

This objective provides the framework for the establishment of specific and the allocated related quality objectives and goods.

1) **Quality Principles**

- Strive to fulfill the customers needs and deliver on time which exceeds the customer expectation.
- Give protection for the the customers, suppliers and partners.
- Self-challenge to create new things and concepts that are cost oriented and reliable.
- To provide the best quality level in industry TE invest in the innovation, technology and continuous improvements which is in need to give the best in today's industry
- Ensuring to operate with the commitment to the high level standards of ethics.

2) **Quality Management System**

- At TE connectivity the Quality Management System is the business model in which it is defined the structure and the responsibilities which is in need to implement the quality policy
- The TE connectivity Quality Management System is defined as the specification in global quality i.e TEC-1000, TE connectivity quality management system.

- TEC-1000 establishes the process and the procedure used to book the customers orders, products design, and ship products to the customers.

3) **Quality Performance**

    - Employees shall be repeatedly informed regarding the quality management system effectively and how well TE is satisfying the customers
    - Attending the important meetings and communicate about quality performance.

1.4 MISSION AND VISION:

Mission: At TE, we operate with the highest standard of ethics and sustainability; we embrace our responsibility to the customers and communities we serve as well as to the future of our planet.

Vision: Be the world leader in our core manufacturing process by driving continuous improvement and innovation.

This will enable TE to have a competitive advantage and allow all internal and external customers of these core manufacturing processes to have an extraordinary customer experience.

1.5 Product Profile

TE Connectivity manufactures many products and few products are listed below:

1) **Power train systems**: it provides a multiple latching options, it's a connector system and is integrated internal HVIL, allowing the flexibility. In addition, the HVA 280 product includes a discrete header design which is unique for the industry that tries to improve the packaging and the manufacturing with the 2 stage, it creates a safety in the system.

2) **Antenna:** The antenna has two types those are:

- Standard antenna.
- Custom antenna.

Antenna is blended with two shots molding, stamped metal, flexible printed circuits, printed circuit boards and laser direct structuring solutions.

3) **Connectors:** it enables the contact between wres, cables, printed circuit boards and electronic components which are engineered to transmit the data, power and the signals with the harsh environment by manufacturing expansive portfolio under the extreme use.

TE Connectivity manufactures many type of connectors, few are listed below:

1. Audio & video connectors.
2. Circular connectors.
3. Shaped connectors.
4. Automotive, Truck & off-Road connectors.
5. Connector Black shell & Adapters.
6. Card & Socket connectors.
7. Contactless connectivity devices.
8. Dock connectors & guide hardware.
9. Fiber optic connectors.
10. Lighting connectors.
11. Modular jacks and plugs.
12. PCB connectors.
13. Power connectors.
14. Rectangular connectors.
15. RF &COAX connectors.

4) **Sensors:** It is a device used to measure the property such as position, temperature, or acceleration an respond with the feedback. TE Connectivity is a global technology leader in manufacturing the sensors and connectors, it is

one of the largest sensor companies in the world. The snsors plays a vital role in the next generation of the data-driven technology. TE offers different types of sensors and few are listed below:

1. Automotive, Truck, Bus & off- Road sensors
2. Digital component sensors.
3. Flow sensors.
4. Fluid property sensors.
5. Force sensors.
6. Humidity sensors.
7. Mass air flow sensors.
8. Photo optic sensors.
9. Temperature sensors.
10. Pressure sensors.
11. Speed sensors.
12. Torque sensors.
13. Traffic sensors.
14. Scanners & Systems.
15. Vibration sensors.

5) **Cable Assemblies**: The assembly of cable ranges from simple jumpers to power and high-speed data cables to complex with the harshness. They are used in many of apps and industries to connect internally, sub-systems and the equipment's. Few cables are listed below:

1. Automotive, Truck, Bus & off-Road cable assemblies
2. Copper cable assemblies.
3. Data and components.
4. Fiber optic cable assemblies.
5. High speed backplane cable assemblies.
6. RF cable assemblies.

6) **Power Systems:** TE focuses on protecting and connecting the electrical power which helps to grab the biggest projects to life, it is easy to install the products for electrical power industry. And the few power systems are listed below:

1. Insulation and Protection.
2. Power cable.
3. Power cable accessories.
4. Power connectors
5. Power systems connectors
6. Solar & photovoltaics.
7. Street lighting.

1.6 Company's future growth and prospective

TE aims to become the global leader and the fastest growing of the company size, and contribute to the global enterprises. To grow more in the space of automotive EV, IOT, continue access from the biggest asset with innovation to win the market place

Creating safety to the employees, sustainability and the connected future.

To keep updated with all the significant events happening across the country India. To create a common platform for sharing and appreciating the success of learning. This platform would be the 'one stop shopping' for several important applications which is used as a part of our daily work.

1.7 Competitors Information

Amphenol: The headquarters is located in Wallingford, US and the numbers of employees working are 70,000. Amphenol corporation is a company which manufactures electronic and the fiber optic connectors, the cable and interconnect systems.

Sanmina: The headquarters is located in San Jose US and the number of employees working are 47,000. Sanmina is a manufacturing solutions and the provider of integrated manufacturing solutions, products and repair, logistic and also provide aftermarket services.

Honeywell: The headquarters is located at Morris plains, US and the number of employees are 131,000. The Honeywell is an international technology manufacturing company which offers energy, technologies, and security.

Sensata: The headquarters is located at Attleboro, US and the numbers of employees working are 22,100. The company sensate technologies is engaged in manufacture, design, and distribution of the product sensors and also the electronic controls.

1.8 SWOT ANALYSIS

SWOT Analysis is used to evaluate the company's competitive position by recognizing its strength, weakness, opportunity and weakness. It is a framework. Specifically, SWOT analysis is the assessment model of the foundation which measures what the company can do and what it cannot do, also its opportunities and the threats.

Strength:

TE defines the strength as the internal factors which are under the control, such as the level of education or the knowledge as well as the personality traits and skills thatan individual obtains along with ones abilities and aptitudes.

- TE tracks the record of success through the mergers and acquisition which has a successful streamline to build a consistent supply chain.
- TE uses the successful market strategies to sell its product.
- TE gets a good rate of return on the capital expenditure by executing the new products. Also by constructing new revenue strams
- The activities of automation brought the stable quality of TE, the products enables the company TE to fluctuate down and up based on the elasticity of demand to its product.
- TE tracks the success record of the developing products in other words it's the product innovation.
- Strong network in the distribution, over the years of the TE company, it builds the distribution network which can reach many number of its market potential.

Weakness:

TE defines the weakness as the internally negative aspects that are under the company's control such as lacking in experience or having a weak skills of presentation.

- Investments made in the field of R&D (research and development) is not the wildest growing players in the lndustry, it is below the line, even though the TE is spending above the average in the field of R&D it is not able to compete with the leading players.
- Limited success in the core biz, even though TE connectivity is one of the leading company it has been faced many challenges in the segmentation of the products with its present culture.
- Compared to the other industries TE has a high eating away rate and they spend a lot more to match its competitors on training and development of its employees.
- TE is not that good at products and forecasting the demand that leads to aincrease in rate of missed opportunities compared to its competitors.
- TE connectivity is not that good in forecasting the demand.
- It needs to invest more in the technologies. For the scale to expand and also the different geographical company which is planning to expand into, TE.

Opportunities:

- Low inflation rate – this rate brings to be more constant in the market for the survival, it in turn enables the credit at lower interest rate to the customers of TE.
- New policies in the environment – the new ways will create a field of playing to all the players in the industry.
- TE enterprise home its advantage in the new technology and acquires market share in the category of a product.

- Its core competency can be a success with similar products field. And that could be the GE healthcare research helped in the betterment of oil drilling machines.
- New taxation policy can have the impact on the way of doing biz and can start an opportunities for the recognized players to max its profitability.
- Decrease the cost of transportation because of the lower shipping price that can also reduce the cost of TE.
- Opening of new markets due to government agreement- like the acceptance of the new technology std and has provided that an opportunity to enter in a new evolving market.

Threats: .

- The demand for the highly profitable inventories is seasonal in nature and unlikely event happening in the peak season may have an impact on the profit of the company ln short or medium term.
- Shortage of the skilled workers.
- New technologies developed because of the competitor could be a serious threat
- Currency fluctuation is one of the bad threat to the company TE as it operates in numerous countries.
- Rise in the raw material can be a threat to TE.
- TE may be exposed to many liability claims as it follows the law of different countries.
- Variation in the consumer behavior through online could be an serious threat to the physical infrastructure

1.9 Financial Statement

Statement of operations for the fiscal years ended 31st December , 2018 and 2017.

31st December , 2018 31stDecember ,2017

Income	**U.S. dollar's**	**Swiss francs**	**U.S. dollar's**	**Swiss francs**
1ncome from distributions by subsidiaries.	$ 58	CHF 56	$ 1,250	CHF 1,209
Pre-separation Tax Settlement income, net.	_____	_____	317	311
Insurance premium charged to subsidiaries.	11	11	10	10
Total Income	**69**	**67**	**1,577**	**1,530**
Expenses				
Salary and Social Class.	5	5	4	4
Genera1 and administrative cost.	5	5	4	4
1egal and consulting cost.	8	8	7	7
1nsurance premium.	13	12	12	12
Expenses for services rendered by subsidiaries.	48	47	45	44
Remeasurement loss on foreign currency transactions.	16	16	15	15
Intercompany interest expense	32	32	28	27
Total expenses	**127**	**125**	**115**	**113**
Net income (loss)	**$ (58)**	**CHF (58)**	**$ 1,462**	**CHF 1,417**

Balance sheets as of 31st December , 2018 and 2017.

(In millions, except share data)

	31st December , 2018		31st December , 2017	
Assets	**U.S dollars (in millions)**	**Swiss francs (in millions)**	**U.S dollars (in millions)**	**Swiss francs (in millions)**
Current assets:				
Accounts receivable by subsidiaries	$ 56	CHF 54	$ 41	CHF 40
Prepaid expenses and 0ther current Assets.	5	4	4	3
Total current assets.	61	58	45	43
Investment in subsidiaries.	9,696	10,430	9,644	10,439
Total Assets.	**$9,696**	**CHF 10,488**	**$9,689**	**CHF 10,482**
1iabilities and shareholders' equity				
Current liability:				
Accounts payab1e.	$ 1	CHF 1	$ 1	CHF 1
Accounts payab1e to subsidiaries.	65	63	47	46
Loans from subsidiaries.	1,917	1,856	1,318	1,279
Accrues and other current liabilities.	7	6	9	9
Shareholders.	286	289	264	264
Total current liabilities.	2,276	2,215	1,639	1,599
Unrealized translation gains.	_____	671	_____	645
Total liabilities.	**2,276**	**2,215**	**1,639**	**2,244**
Comitments, contingensies and guarantees				

Shareholders' equity: Share capital, 357,069,981 and 382,835,381 shares authorized and 1ssued CHF 0.57 par value.	157	204	168	218
Statutory reserves: Genera1 reserve by earnings.	38	49	38	49
Free reserves:				
Reserves from capita1 contributions.	6,420	7,300	6,992	7,878
Allocated reserves for the acquisition of treasury shares by a subsidiary.	(421)	(409)	(111)	(110)
Unappropriated accumulated erns.	805	49	2,364	1,594
Own shares held 1n treasury.	_____	_____	(1,512)	(1,501)
Reserves for treasury shares.	421	409	111	110
Total shareholders' equity	**7,420**	**7,602**	**8,050**	**8,238**
Total 1iabilities and shareholders' equity	**$ 9,696**	**CHF 10,488**	**$ 9,689**	**CHF 10,48**

Chapter 2

Conceptual Background and Literature Review.

2.1 Inventory management

Definition: inventory is an accounting topic which refers to the products that are in different stages of being done which is steady for the sale, in Order to confirm that the accounting records are time to time up-to-date and are very accurate. Businesses will undertake a manual inventory count at the end of each accounting period, which are mostly held in quarterly or annually. Companies that take annual inventory count are considered to take a lasting inventory because the count is always the current count.

Inventory is a tangible property which is held for the sale in the usual course of a business and it is in the of production for such sale, or it is to be currently consumed in the production of goods or services which is to be made available for the sale. Inventory includes and comprises with the finished goods, semi-finished goods or component goods, work in process and raw materials.

Standard cost: Standard cost is also known as the True cost at TE Connectivity, Standard cost is a cost which is assigned at the part number level. For example, part number 56789 has a True cost of $ 1.00. Which includes the cost to purchase, the cost to handle and produce a product under normal operating days or conditions? It will reflect the optimal range to keep a production machine run safely and effectively within the accepted level of efficiency and it does not include any unplanned shutdowns or delays.

Standard cost is used to value the inventory for its legal entities, except where they use accepted alternatives such as job-order costing, percentage of completion or specific identification.

The following are few factors which are considered when the standard cost is established or updated:

- Bill of material and routing.
- Purchase prices.
- Currency rates.
- Sourcing.
- Spending (includes labor, depreciation, overhead, burden, etc.)
- Current, average or known future volumes.
- Cost reductions.

Purpose of inventory, **Standard Cost**

This policy is ensured to provide the guidance on inventory valuation, manufacturing cost and also manufacturing variance in accordance with the US Generally Accepted Accounting Principles (GAAP) and the US Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC).

Scope for Inventory, Standard Cost:

This policy applies to all the TE Connectivity entities, segments and also the business units.

Responsibility for Implementation

All TE employees are responsible for adherence to this policy. The corporate controller is also responsible for instituting and maintaining a process in support with this policy and the oversight and enforcement of this policy are directed to either the financial policies and controls ("FP&C") department or the corporate controller's office.

Any deviation from the policy has to be submitted to the FP&C department using the Financial Policy deviation request portal (http://policydeviationportal/) for approval by the assistant corporate controller.

Valuation

Inventory value must reflect to the costs to procure, process and place the product for sale and it also includes payment which is made to acquire, transport, handle, store, and produce the inventory. It is the sum of expenditure and charges indirectly or directly incurred in Bringing the goods to their existing condition and location.

Inventory is valued at the cash-equivalent or cash payment of purchase or production. It includes depreciation expense. Any abnormal costs, like rework costs or excessive handling cost are recognized on the income statement in the period incurred

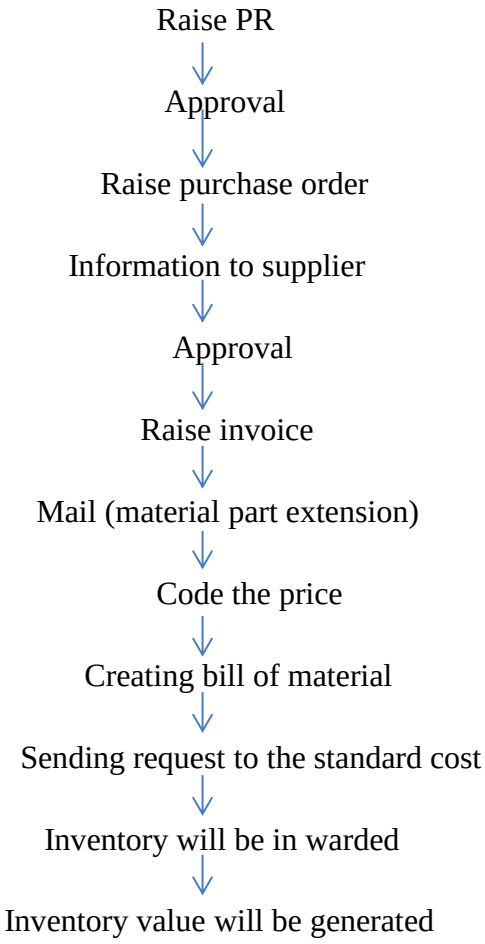
.

Costing methods

Most of the TE legal entities use standard costing as the mechanism to observe and suck the historical costs into inventory standard costs into inventory. Standard costs are defined as the costs that are anticipated to be the current or historical years cost at the time when the current year's annual budget was established.

Some legal entities do not follow the standard cost as the method to cost due to the unique nature of the operation or goods & services provided. Exception to use the standard costing is granted when companies use an alternative such as job-shop, specific identification or percentage of completion of the revenue accounting. These alternatives have to be documented in an online financial policy deviation request and submitted to the FP&C department for the approval by the assistant corporate controller.

How the part number works?



Standard cost

The total stock when multiplied with the standard cost gives the inventory value. Standard cost cannot be changed once it is released, in case of emergency the global approval is needed to change the standard cost.

1. Provision for obsolescence

Provision for obsolescence is assigned to the part number depending on the no of days used then calculating reserve based on the given percentage.

Calculation of obsolescence

1. Determine period of last activity for a part number.
2. Calculate the last 12 months usage for the part number.
3. Calculate the current inventory in the stock for the part number.
4. Subtract the last 12 months usage from the current inventory in the stock for the part no and then multiply by the percentage (based on the period of last activity).

Examples:

Period of last activity	**How applied to inventory**	**Percentage provision**
0 to6 months	Inventory held in excess of last 12 month's usage.	25%
7 to12months	Inventory held in excess of last 12 month's usage.	100%
13 months and over	All inventory	100%

2. Block stock report

Block stock report is a report on the part number or the product which have defective products and are rejected materials by the customers. Materials which are not sold and rejected by the customers are not stored more than 60 days. All those material which are defective, have been scrapped timely or altered or resell it.

3. **Freight burden duty:** Freight burden dutyare not assigned to the manufactured part number but it is assigned to the part number which are of sub-contract in nature and it is not applicable to the export oriented EOU plant. It is added only to the intra company, the FBD i.e freight burden duty is decided by the controller.

The T code used in SAP to view the cost breakup and to know the bill of market labor overhead is CK13n.

Primary True cost uses:

- EBIT performance and compensation measurement.
- Inventory valuation.
- Intercompany transfer price establishment.
- Make vs. buy
- Price floor, i.e. Use true cost.
- Facilitate planning and controlling.
- Benchmark against which manufacturing performance is measured.
- Product and customer profitability analysis.
- Financial statement preparation.

Total True Cost

- True material cost.
- Labor.
- Overhead.
- Material burden.

True material cost: True material cost is a cost which is incurred by the purchase from an outside trade vendor.it includes raw material, base metals, components, sub-assemblies, delivery charges and sales taxes. It also includes the cost of service purchased from the 3rd party.

Labor: Compensation and the payment of direct labor costs that can be identified to products/processed in an economically feasible manner, i.e. the advantage of identifying direct labor activity are greater than that of the costs to identify labor activity.

Overhead: Manufacturing costs which cannot be identified specifically with or traced to a products in a feasible manner economically. Equals to the sum of the variable overhead and fixed overhead cost.

Material burden: Material burden costs include the labor and departmental costs that is associated with purchasing and receiving material from the vendor or other TE Connectivity plants, storing inventory and moving inventory from one place to another stores to a production.

Material burden includes 3 elements:

1. Incoming freight.
2. Import duty
3. Material handling.

Inventory

TE Connectivity material types which are not included in the inventory:

- ZSPC- Special charges.
- ZPTL- Production tooling, production tooling spare parts and machinery.
- NLAG- Non-stock material.
- HIBE-Operating supplies.
- ZWRB- Advertising media/documentation**.**

Inventory Classification

Finished goods

Definition: manufactured or purchased materials sold to trade the customers in the normal condition or course of business which includes the goods of a trading fear (distributor) or the finished goods of a manufacturer and that includes the following TE Connectivity part types:

- ZFRT: Finished Goods.
- ZKMT: Configurable Materials.

Component or Semi-Finished Goods

Definition: manufactured or purchased products that is not completely assembles or manufactured. Goods that help for sale to only intercompany customers or the goods that is to be used in he production of goods to be made available for the sale. And that includes TE Connectivity part types:

- ZHLB: components.
- ZHLB: sub-assemblies.
- ZVRP: packaging materials assigned to part number.

Work in process (WIP)

Definition: Goods in the process of sale or eventual production. inventory classification typically have been issued to the production order and is in the process of being converted to a different part number or being redone to be returned to the stock, that includes the goods owned by TE Connectivity and are located at either a TE Connectivity.

Raw Materials

Definition: Basic substances in their natural, modified or semi-processed state, used as th input source into a production process of the goods to be made available for sale. These materials should be included in the production costs as direct materials. Includes the following TE Connectivity part types:

- ZHRO: Raw Materials.

Types of costs incurred in inventory: The costs that are included in the inventory is called as product costs. These materials should be included in the production costs that are incurred, either directly or indirectly to purchase or produce inventory as well as to get the inventory to a condition and the location for sale.

Examples of costs included in inventory are as follows:

- Invoice cost of goods purchased from the trade vendors.
- Insurance.
- Inspection.

- Inbound transportation.
- Import duties.
- Material handling
- Ware housing.
- Interplant distribution.
- Manufacturing engineering.
- Packaging materials.
- Standard cost.
- Outsourcing
- Production labor.
- Other support labor and overhead.

Examples of costs excluded in inventory are as follows:

- General cost.
- Hyperion GAAP legal reporting.
- Local statutory reporting.

Inventory in TE Connectivity is managed by the following steps:

Customer order/sales order.

↓

GRIN.

↓

Produce a product.

↓

Quality check.

↓

Shipment.

Customer order/ Sales order: customer support person will place an order for the required inventory and then the TE sends it to the supply chain management team, the team will first check the availability of the required product if yes then it sends the product in case if the product is not available then the product is outsourced by the TE affiliated or in case of emergency the external sub-con will deliver the product.

GRIN: Goods Received Inward, the term GRIN is listed in the system once the customer order is raised by the customer. It comes and sit in the inventory or the raw material account.

Produce the product: The production will raise a purchase order and the raw materials required to manufacture the product, it manufactures the product according to the quantity required also assigning the batch number for each time of dispatching the product, the production team will then ensure whether the materials have been issued or not.

Quality check: The team will check the materials that are ready to be dispatched, in case of defective inventories found will be taken out and are scrapped within 60 days. Finally after the quality check the materials will be sent to the warehouse.

Shipment: The shipment is done against the sales order which is raised. And invoiced by the TE to the customer and ship the material with the related documents.

Payment: They make the payment based on the period the parties agreed upon like for a period of 60 days, one month, etc. incase if it's not paid the accountants takes the necessary action.

In case of any adjustments are to be made to the inventories like plating work are been outsourced by the industry. Like assigning the finishing work plating to the sub-contractors. the major sub-contractors are:

- Interplex
- SS electronics (cable assemblies).
- Spectronics.

2.2 LITERATURE REVIEW

Grzegor zmic halski (2009):

He explained The basic function and the purpose of the finance is the maximization of its value, realization of inventories should be made to fulfill the fundamental aim.by focusing on the risk related aspect the value maximization strategy is executed.

The description of the article and the recipients' problems demonstrate how the firm will contribute to the operational risk created by the suppliers as a result of the risk distribution. This essay would include an overview on the process used to pick the suppliers for the portfolio management philosophy.

Pradeep singh (2008):

According to Pradeep singh the firm which neglects the inventory management has to face the consequences and serious problems which is related to long-term profitability and may fail to survive in the business market. By the inventory management a firm can decrease the level of inventories for example: 20-30 % without any risk on the production and sales. Thus inventory plays avital role in the field of business.

His studies helps us to analyze and evaluate the size of the inventory effect and also it will have an impact on the working capital through inventory ratios. Finally, it is used to find that the size of the inventory will directly or indirectly effect the working capital management.

J. Viale (1996):

J.Viale tells how the inventory is managed from the warehouse till the distribution center, from the warehouse till the distribution center it contains the logistics approach like from the supplier to the customer, this literature is mainly written for the managers to outline the objectives and measures of the performance to customer service, investment on inventory and operational efficiency, warehouse surrounding are fully explored and inventory factors affected are fully discussed, including packaging, types, objectives, cost, material handling etc., this literature provide the tools and techniques of management, to view on financial analysis of inventory management

M.C. Bonney (1994):

Inventory management according to Bonney is one of the important tool and plays a vital role in recent years, it has many success stories, due to the rapid change in the advanced technology and worldwide competition the inventory plays a major role in the investment policy in most of the company, it influences the internal factors of the company, for example by improving the production by giving proper delivery to customers. Inventories values are reduced due to the obsolescence and shrinkage; it ties up with the space. In recent times the manufacturing industries are more concentrated on inventory is a waste, using the policy JIT production,

Retailing provide more stock and more profits to the company, it also provide moral service and renewed items to customers at the possible low cost.

The new trends in market control have improved distribution strategy, it says buy imported goods instead of home-made goods. The new development such as methods for bar coding is focused on more machines and there are a few problems to be solved.

Escobosa (1991):

An inventory management is a system which includes interrogation Trans receiver, transponder and the control devices. The control device is used to reduce the transponder while permitting the selected. The interrogation Trans receiver acts as a link between the transparencies which means a modulated radio frequency (RF) during operational systems a receivers witch/transmit which is used to prevent the harmful cause between the transponder and transmitter. This occurs during the data changes between the trans pender and the interrogation receiver.

Jasan R (2000):

The inventory management items such as the ads like banner are to be displayed in the websites, in one expression the method will construct a number of item slots and slot groups; it has a number of item slots which is equal to the total number of slot item, by matching the characteristics of item slot to the Meta groups. The method will allocate each number of first item types; this method also allocated each number of items of second type of the Meta groups as well as the groups that are unfulfilled.

Kurt Schaller (2002):

The customer requisitions are fulfilled by interacting through business to business order and inventory management system, also provide the current status of inventory information. The information transmitted are totally computerized with the supplier information, storage capacity etc. to establish the inventory products and shipping sites and to have a proper counts of bill, ship, inventory counts, customer request etc. track on the customer product and to generate the storage capabilities shipment, customer request are coupled by data communication which transfers the data and information.

Rishi Agarwal (2001):

According to Rishi the inventory management system is to maintain the optimal level of inventory, for this inventory management system and the method is provided. This invention analyzes the supply chain network to provide an optimum stock measure. This inventory method uses the existing inventory info to calculate the optimal level of inventory, this system is used for a purchase plan on ordering restored inventory, this inventory method also Inco-operates the intra company sideway moves into the chasing and ordering the inventory in multiple locations it is used to analyze whether the transfer of inventories among the locations can resolve the issue of inventory level.

Robert W. Perkins (1995):

A scheme for inventory management may track the quantity of materials in a storage facility based on historical data pertaining to product usage patterns. The method specifies the time up to the emptying of storage resources. If the suppliers clear the stock before the deadline, the inventory control system would notify the suppliers to move the stock into the shelf.

The inventory management scheme determines the products distribute dare consumed at a lower rate than the predicted, then the inventory management system will instruct the suppliers to postpone the shipment of the product and then it is tracked. in addition the alarm set is activated when there is a slight change in the rate of usage of the stored products. Provisions are also included and checking the receipt for the replacement in order to the payment for the replaced products.

Thomas Lindsay Dorval (1996):

A system and the methodology used to evaluate an inventory management strategy is embedded with multiple management strategies in a single inventory management system, this analyze the inventory portfolio on item by item, on the basis to assign the suitable strategy among the alternates. The inventory management system provides the users input with a high level of flexibility to ensure the level of customer satisfaction. In addition it analyzes the items which are forecasted before predicting the future demands.

Jheroenporen bosch (2000):

A inventory management system is used for maintaining the inventory items facility where the each item has attached to the identification tag like a part number containing all the info about the item. This identification tag helps the reader to identify the item in entrance then the identification tag will be noticed by the reader about the item, the inventory data base is completely computerized and is updated frequently in accordance with the item information by identification tag.

Colin durry (1998):

Standard cost is also known as true cost and standard cost is the foundation on which the management accounting and the budget are practiced but this is misunderstood, in this book Colin Durry gives a complete brief on the nature and the scope of standard cost and also specifies limitations, the calculations and interpretation related to cost accounting are covered. The book of accounts where the standard cost have been recorded are fully dealt in depth and this is very much essential for the full appreciation finally, the use of traditional standard cost techniques are assessed in modern production environment.

Thomas.J.Fisher (1990):

The productivity measurement has been the problem area for many years due to the difficulties and quantity of all the output and input. This measurement technique is mostly focused on the business and the performance of an organization using standard cost accounting information, the productivity measurement is an active system to

measure the productivity of an organization. The method of standard cost measurement is simple and flexible and it does not require any additional information, it is based on the standard cost model where productivity is equal to output divided by input and this is a simple formula to calculate overall organization productivity.

Anura De Souza (2007):

The main purpose of this book is to have a review on literature on standard costing in manufacturing unit. This paper analyzes the change in the manufacturing environment and it has a lowered significance of standard cost in japan firms. The paper is about how the standard cost is still being used by much number of firms both in the developed and the underdeveloped countries, overall the research tells the importance of the standard cost has not declined to a lower level, this paper is an empirical investigation on standard cost manufacturing firms. This will be useful to researcher and accountant to understand the importance of standard cost, it also reveals that one should use standard cost to teach in classroom or not.

Maliah sulaiman (2005):

The purpose of this paper is many authors have assumed that the short period product life cycle and advanced technology in manufacturing, decrease in labor of production process and the international competition may lead to the death of standard cost, the exploratory research aims to bring out the evidence to the companies to use standard cost. The findings suggest that the standard cost is still used by many number of firms thus, the basic principles of standard cost remain sound. The findings are done in exploratory area which needs tobe detailed by theory and also undertake case study in future studies.

Richard K. Fleischman (2008):

The search for standard cost is undertaken in the U.S, U.K and Britain. This article is a gives a brief introduction about the understanding and practices of standard cost also the difference between the understanding and practices of standard cost in both U.S and U.K and brief on the development of specific practices based on the review of past war

literature. The author of this book conclude that the standard cost quantity and quality are related to scientific management practices which reached the level in practice that many accounting historians might felt it would have been achieved earlier.

Another principal of findings is standard cost must have been enacted in the late 1910's, it developed in U.S and U.K in 1940's-1950's, findings bring out that Britain was not far behind America and standard cost practices is believed commonly.

Cooper J.C (1998):

The product line managers have to take decisions based have to take decisions based on the inaccurate cost information, the standard cost method is much needed to predict the costs more accurately by using standard costing model, the product line managers are the ones who can estimate the cost, and intermediate end products and hence, they can estimate the cost of the product line.

Jacopo Torriti (2012):

He says that a red tape is not advisable as it is an obstacle for the business growth. Due to the legislation the whole economy can relief and benefit, especially at the time of decline however, the recent initiatives by government aimed at decreasing the burdens of administrative and enjoy the success, Jacopo compares 3 national initiatives in Netherlands, UK and Italy which is aimed in splitting the red tape by using the standard costing model which includes all the overhead labor charges etc. Jacopo highlights the findings and the factor affecting the outcomes of measurement and reduction in plans to improve the standard cost methodology.

Rosalie. c. Hallbauer (1978):

Hallbauer says that many have told that the scientific management will have a direct impact on the development of standard cost, he examines the relationship between the standard cost and the scientific management concepts in broad terms, he also said that no direct relationship should exist between the scientific management and the standard cost, in case of indirect relationship between the scientific management and the standard cost than it is acceptable. Scientific management don't require any specific accounting system and standard costing doesn't require any type of management to operate hence,

certain reports are designed for the scientifically managed enterprise when it is added as a germ to the standard cost which is already existed.

Valimaki (2014):

The valimaki gives a case study on the fundamental difficulties of employing standard cost in manufacturing unit, the main feature of this case is to understand how the manufacturing unit will face the fundamental difficulties in employing the standard cost in case if the organization is operating globally it is very difficult to understand the problem area since standard cost system is used for product costing and for decision-making. The objectives is to analyze the developing solutions and finding for the recognized challenging areas.

The research is mainly used for the foreign literature and the article, to build a theoretical framework, the result is that the operational factors is the main area where most if the standard costing difficulties are raised, it is due to the lack of tools, standard cost deviations, lack of variance, audit cost and the standard cost with continuous development. Valamiki will brief on the development suggestion to improve standard cost and to overcome the difficulties. In addition, he tells the improvement in standard cost design is done through seeking cost reduction by improving operation area.

Chapter 3

RESEARCH DESIGN

Topic chosen for the study

A study on "Inventory Management" in TE Connectivity Bangalore.

Introduction about the topic

Inventory is tangible property which is ready for the sale in the usual course of a business and it is in the method of production for such type of sale, or it is to be presently consumed in the production of goods or services which are to be made available for the sale. Inventory includes and comprises with the finished goods, semi-finished goods or component goods, work in process and raw materials.

Standard cost: Standard cost is also known as the True cost at TE Connectivity, Standard cost is a cost which is assigned at the part number level. For example, part number 56789 has a True cost of $ 1.00. This includes the cost to purchase, the cost to handle and produce a product under normal operating days or conditions. It will reflect the optimal range to keep a production machine run safely and effectively within the accepted level of efficiency and it does not include any unplanned shutdowns or delays.

3.1 Statement of the problem

1. To learn how the inventory part number works in the connectors and sensors manufacturing company.
2. To find out how the standard cost estimated and calculated.
3. To know the degree of provision of obsolescence on the duration usage of the inventories.
4. To know how many materials have been used and not used in the company.
5. To know how the organization work on inventories management.

3.2 Need for the study

Inventory and standard cost is one of the important key aspect in the company TE Connectivity, the management of inventory usually differs from one firm to another organization, the inventory management and the standard cost should enhance the sales

of the connectors and sensors manufactured by the company TE, the study is mostly based on how the company manage the inventory part number and the materials which are not used is calculated on specified percentage and then the reserve is known.

To study on the area of inventory management and standard cost to be focused for improving the company sales, to evaluate the availability of the material, production people must ensure the specified part number is in stock or not. To study the usage of inventories and also the issue faced by the part number in case of theft, natural calamities etc. And to know the strategy used by them to overcome the competitors.

3.3 Objectives of the study

- To study how the inventory part number works.
- To study the usage of the materials.
- To know how to calculate the reserve.
- To study the strategy used by the company to overcome the competitors.
- To know the strength and weakness of the firm.
- To know the financial position of the company.

3.4 Scope of the study

- Study covers all the inventories related aspect.
- Study covers the usage of the part number
- Examine the financial position in current and in future growth.
- Evaluating of inventory management and standard cost in TE Connectivity.
- It changes the structure always to keep the wheels of business moving.
- Scope applies to all the TE Connectivity entities, segments and the business units.

3.5 Research Methodology

Type of research used: Exploratory research

Exploratory research helps us to explore the facts and figures but does not arrive at any conclusion. This is considered to be suitable to my study.

This type of research is mainly chosen to determine the problem and the nature of the problem, this research helps us to have a better understanding about the company problem. Hence this research does not aim in providing the final conclusion. It is the initial research, it tackles with new problem. Unstructured interview is one of the most popular data collection.

Data collection:

There are many basic data collection in the research.

Sources of the data

Secondary data

Secondary data is a data which is already known, in other words which is ready or existed, readily available from the other sources, such type of data are quickly available and are more cheaper in nature, this type of data will enable us to save time and efforts, energy. This data helps us to for the better understanding and gives a clear picture.

The sources of secondary data are:

- The annual reports of the company.
- Balance sheet of the company.
- Website of TE Connectivity .i.e. te.com

3.6 Limitations of the study

1. The study is purely dependent on the financial data and the inventory, standard cost data material provided by the company.
2. The company ensures that they are providing me only the required financial data for the study.
3. The company does not reveal the financial data only after my promise ought not revealed with outside public.

Chapter -4

DATA ANALYSIS AND INTERPRETATION

4.1.1 Inventory turnover ratio for the month July 2018 (industrial)

Tble-4.1: Table showing Average inventory during 2018

In work in progress	4,444,459
In raw materials	57,774,464
Average inventory	62,218,923
Cost of goods sold	91,641,642

Average inventory = WIP+RM

= 4,444,459+57,774,464

Average inventory = 62,218,923

Calculation of ITR:

ITR = cost of goods sold / average inventory

= 91,641,642/62,218,923

=1.47 (4)

ITR for the month of July is = 5.89

Interpretation: Here the ITR is calculated when the cost of goods sold is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of July 2018 is 5.89

4.1.2 Table showing Inventory turnover ratio for the month August 2018 (industrial)

In work in progress	5,401,434
In raw materials	56,859,325
Average inventory	62,260,759
Cost of goods sold	95,960,412

Average inventory = WIP+RM

= 5,401,434+56,859,325

Average inventory = 62,260,759

Calculation of ITR:

ITR = cost of goods sold / average inventory

= 95,960,412 / 62,260,759

=1.54 (4)

ITR for the month of August is = 6.16

Interpretation: Here the ITR is calculated when the COGS is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of August 2018 is 6.16

4.1.3 Table showing Inventory turnover ratio for the month September 2018 (industrial)

In work in progress	2,370,411
In raw materials	53,600,721
Average inventory	55,971,132
Cost of goods sold	98,644,575

Average inventory = WIP+RM

= 2,370,411+53,600,721

Average inventory = 55,971,132

Calculation of ITR :

ITR = cost of goods sold / average inventory

= 98,644,575 / 55,971,132

=1.76 (4)

ITR for the month of September is = 7.05

Interpretation: Here the ITR is calculated when the COGS is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of September 2018 is 7.05

4.1.4 Table showing Inventory turnover ratio for the month October 2018 (industrial)

In work in progress	3,899,671
In raw materials	59,463,936
Average inventory	63,363,607
Cost of goods sold	74,407,521

Average inventory = WIP+RM

=3,899,671+59,463,936

Average inventory = 63,363,607

Calculation of ITR:

ITR = cost of goods sold / average inventory

=74,407,521 / 63,363,607

=1.17 (4)

ITR for the month of October is = 4.7

Interpretation: Here the ITR is calculated when the COGS is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of October 2018 is 4.7

4.1.5 Table showing Inventory ratio for the month November 2018 (industrial)

In work in progress	5,126,481
In raw materials	52,010,644
Average inventory	57,137,125
Cost of goods sold	90,435,149

Average inventory = WIP+RM

= 5,126,481+52,010,644

Average inventory = 57,137,125

Calculation of ITR:

ITR = cost of goods sold / average inventory

=90,435,149 / 57,137,125

=1.58 (4)

ITR for the month of November is = 6.3

Interpretation: Here the ITR is calculated when the COGS is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of November 2018 is 6.3

4.1.6 Table showing Inventory ratio for the month December 2018 (industrial)

In work in progress	6,069,233
In raw materials	55,499,588
Average inventory	61,568,821
Cost of goods sold	88,089,972

Average inventory = WIP+RM

= 6,069,233+55,499,588

Average inventory = 61,568,821

Calculation of ITR:

ITR = cost of goods sold / average inventory

=88,089,972 / 61,568,821

=1.43 (4)

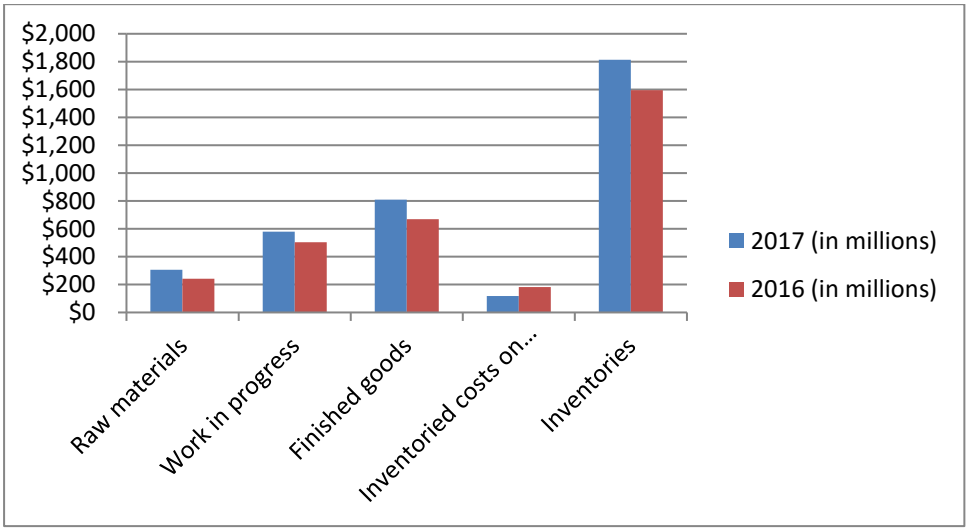
ITR for the month of December is = 5.72

Interpretation: Here the ITR is calculated when the COGS is divided by the average inventory, the average inventory is the sum of the inventory work in progress and the inventory raw materials used for it. The cost of goods sold includes the sum of last 2 months COGS value and the current month COGS value which is when divided by average inventory of the current month and then multiplied with 4 gives the inventory turnover ratio. Here the ITR for the month of December 2018 is 5.72

4.2 Table showing consolidated financial statement

Particulars	**2017 (in millions)**	**2016 (in millions)**	**Increase (in millions)**	**Decrease (in millions)**
Raw materials	$ 306	$ 241	$65	
Work in progress	580	504	76	
Finished goods	810	669	141	
Inventoried costs on long-term contracts	117	182		65
Inventories	**$1813**	**$1596**	$217	

Chart-4.2.1: Chart showing current assets during 2016-17

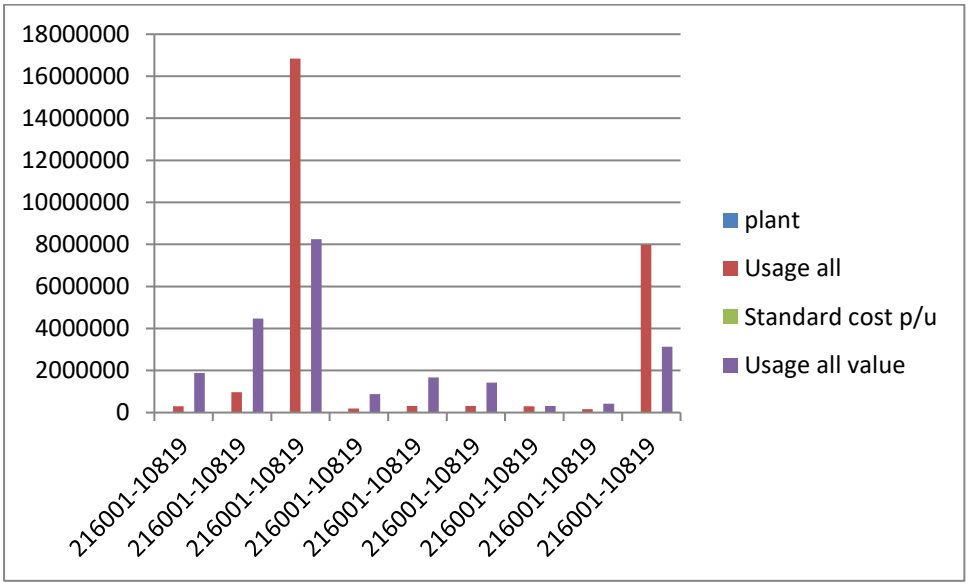


Interpretation: The consolidated financial statement interprets that the raw materials value in the year 2017 is more than that which is used in the year 2016 .i.e. it is increased by $65, WIP is also increased by 76$ in the year 2017, the value of finished goods had gone up to $ 141 in the year 2017 when compared to the year 2016. The inventory contact value has been decreased in the year 2017 when compared to the year 2016

4.3 Table showing Calculation of usage all value using standard cost

Material plant	plant	Usage all	Standard cost p/u	Usage all value
216001-10819	0819	304,918.00	6.16	1878294.88
216001-10819	0819	976,188.00	4.58	4470941.04
216001-10819	0819	16,846,666.00	0.49	8254866.34
216001-10819	0819	199,319.00	4.44	884976.36
216001-10819	0819	317,551.00	5.24	1663967.24
216001-10819	0819	318,061.00	4.47	1421732.67
216001-10819	0819	291,439.00	1.06	308925.34
216001-10819	0819	158,352.00	2.70	427550.4
216001-10819	0819	7,977,790.00	0.39	3132878.133

4.3.1 Chart showing usage all value

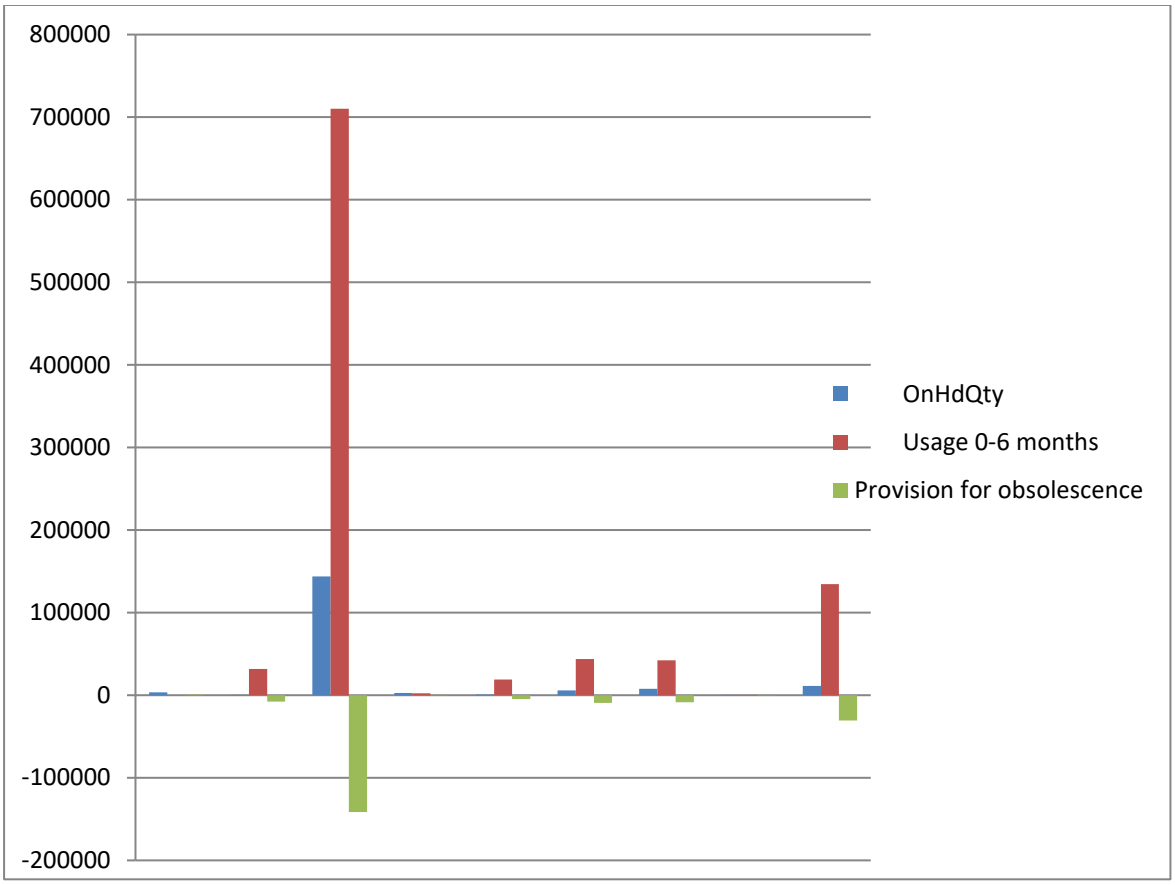


Interpretation: In the above graph it shows that the usage of the plant number 0820 keeps fluctuating, usage all value calculation is done by multiplying the usage all inventories with the standard cost, the system automatically updates the standard cost as per unit and then the usage all value is found.

4.4 Table showing Calculation of provision of obsolescence

Material Plant	Plant	OnHand Quantity	Usage 0-6 months	Provision for obsolescence (25%)
216001-10819	0819	3400	0	850
216001-20819	0819	472	31828	-7839
216002-10819	0819	143902	710098	-141549
216004-10819	0819	2841	2159	170.5
216004-40819	0819	904	19096	-4548
216809-10819	0819	5989	43611	-9405.5
216812-10819	0819	7936	42111	-8543.75
216904-20819	0819	510	490	5
338452-10819	0819	11175	134380	-30801.25

4.4.1 Chart showing provision of obsolescence



Interpretation: From the above graph it is noticed that the provision for obsolescence is a reserve which is created based on the number of months usage of the plant number 0819 here it shows that the usage for 6 months is more than that of the on hand quantity so the provision for obsolescence is negative in most of the cases. The company finds the reserve by knowing the difference between the usage quantity for 6 months and the on hand quantity then the 25% of the result is taken as the provision for obsolescence.

ABC Analysis

Part No: 0819

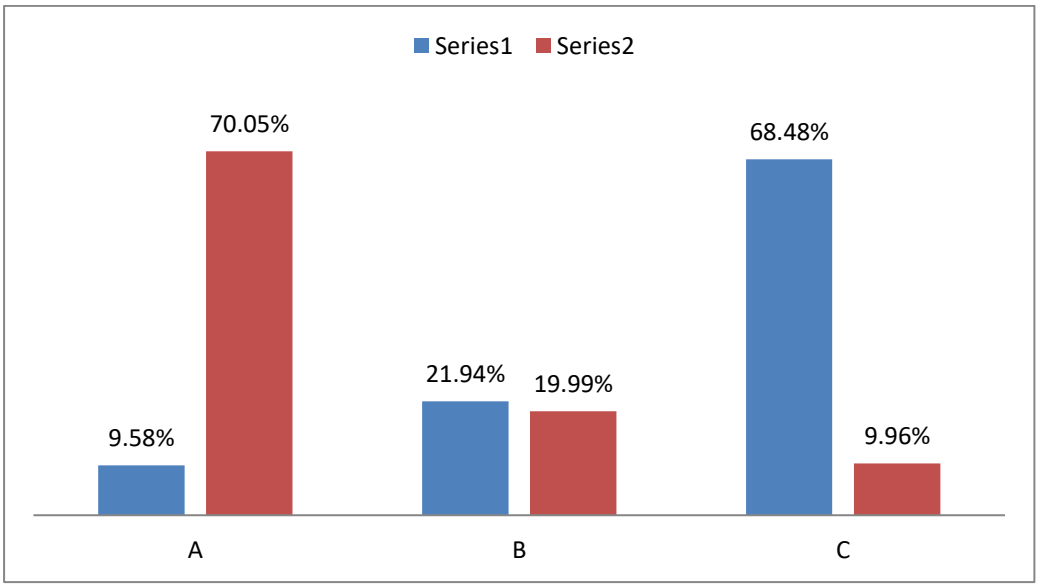
ABC Analysis: Always Better Control

This is based on the cost criteria. ABC Analysis helps when there is large data of inventory items and can classify the class A as the 10% of the items which gives 70% of the resource, the B class if where the 20%of the inventory item which gives 20% of the resource and class C defines the area which 10% of the materials consumed of 10% of the resource.

4.5 Table showing ABC Analysis for Plant N0 0819

ABC	No of Parts	Total Cost	% Of Parts	% of Cost
A	790	193564102	9.58%	70.05%
B	1810	55242973	21.94%	19.99%
C	5648	27524149	68.48%	9.96%
Total	8248	276331224	100%	100%

4.5.1 Chart showingABC Analysis for Plant N0 0819

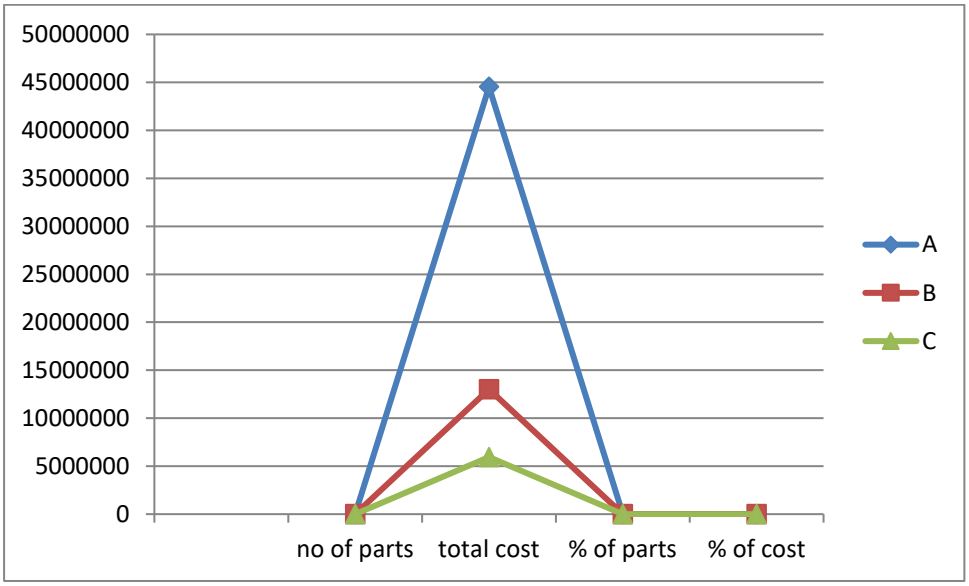


Interpretation: In the above graph shows that the classification A gives the highest percentage of cost .ie. 70.05% with only 9.58% of the inventories, classification B is like a break even where almost the cost and the percentage of the parts remains same and the classification C represents that the percentage of the cost is very low when compared to that of the percentage of the parts i.e. 9.96 and 68.48 respectively. Hence it is proved that the classification A gives the highest revenue when compared to other classification.

4.6 Table showing ABC Analysis for plant number 0820

ABC	no of parts	total cost	% of parts	% of cost
A	19	44523324	11.30	70.1282
B	34	13014090	20.23	20.49834654
C	115	5951073	68.45	9.373468094
Total	168	63488487	100	100

4.6.1 chart Showing ABC Analysis for plant number 0820



Interpretation: In the above graph shows that the classification A gives the highest percentage of cost .ie. 70.12% with only 11.30% of the inventories, classification B is like a break even where almost the cost and the percentage of the parts remains same i.e the percentage of cost is 20.49 and the percentage of parts is 20.23.The classification C represents that the percentage of the cost is very low when compared to that of the percentage of the parts i.e. 9.37 and 68.45 respectively. Hence it is proved that the classification A gives the highest revenue when compared to other classification.

4.7 Table showing Comparative Balance Sheet

Assets	**U.S dollars (2017)**	**U.S dollars (2016)**	**Increase**	**Decrease**
Current assets:				
Accounts receivable from subsidiaries	$ 56	$41	37%	
Prepaid expenses, other current Assets.	5	4	25%	
Total current assets.	61	45	36%	
Investment in subsidiaries.	9,696	9,644	52	
Total Assets.	**$9,696**	**9,689**	**7**	
1iabilities and shareholders' equity				
Current liability:				
Accounts payable.	$ 1	$1	0	
Accounts payable to subsidiaries.	65	47	18	
Loans from subsidiaries.	1,917	1,318	599	
Accrues and other current liabilities.	7	9		2
Shareholders.	286	264	22	
Total current liabilities.	2,276	1,639	637	
Unrealized translation gains.	_____	_____	_____	
Total liabilities.	**2,276**	**1,639**	**637**	
Commitments contingencies and guaranties				
Shareholders' equity: Share capita1, 357,069,981 and 382,835,381 shares authorized and 1ssued CHF 0.57 par value.	157	168		11
Statutory reserves: General reserve from earnings.	38	38	0	
Free reserves:				

Reserves by capita1 contributions.	6,420	6,992		572
A1located reserves for the acquisition of treasury shares from a subsidiary.	(421)	(111)	310	
Unappropriated accumulated erns.	805	2,364		1559
Own shares held in treasury.	_____	(1,512)		1512
Reserves for treasury shares.	421	111	310	
Total shareholders' equity	**7,420**	**8,050**		**630**
Total liabilities and shareholders' equity	**$ 9,696**	**9,689**	**7**	

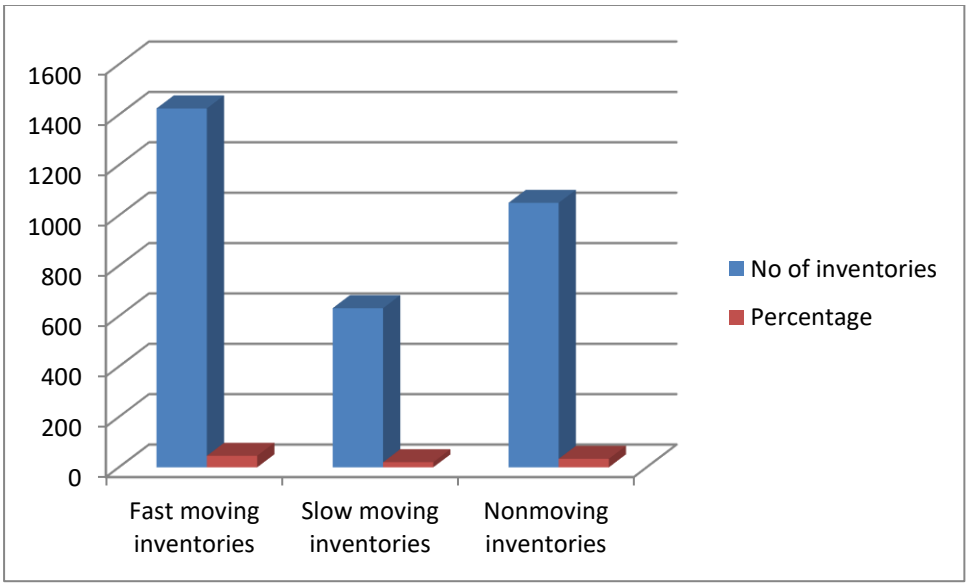
Interpretation: From the above financial statement, it is found that the difference of the total asset is $ 7 million and the difference for the total liability is also $7 million. when the assets are compared to the year 2016 with the year 2017 the difference is $ 7 million so the liability also remains the same. Here the total value asset is more than that of the year 2016 when compared to the year 2017 .i.e 9,996 in the year 2017 and 9.689 in the yea 2017 and the total liability is also the same.

4.8.1 Table showing FSN analysis for plant number 0819 (Raw Materials)

FSN inventories	No of inventories	Percentage
Fast moving inventories	1425	45.86
Slow moving inventories	632	20.34
Nonmoving inventories	1050	33.79
Total	**3107**	**100**

Inference: Here the fast moving inventories has the highest percentage of 45.86 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold

4.8.1 Chart showing FSN analysis for plant number 0819 (Raw Materials)



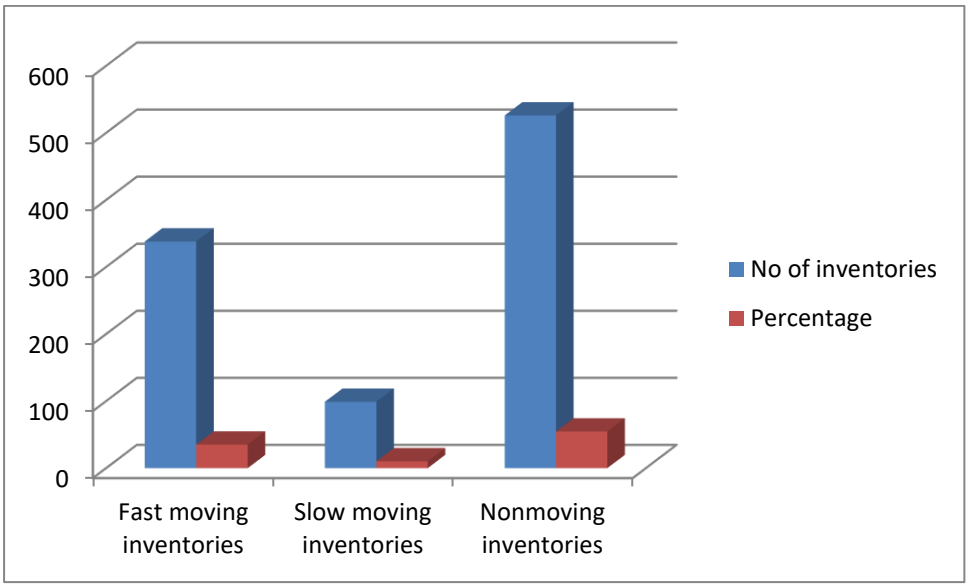
Interpretation: FSN analysis is a Fast moving, Slow moving and Nonmoving inventories analysis. Here the total number of inventories is 3107 out of which fast moving inventories is 1425, slow moving inventories is 632 and the nonmoving inventories is 1050 which gives the percentage of 45.86, 20.34, 33.79 respectively. Therefore the fast moving inventories has the highest percentage.

4.8.2 Table showing FSN analysis for plant number 0819 (Finished Goods)

FSN inventories	**No of inventories**	**Percentage**
Fast moving inventories	338	35.09
Slow moving inventories	99	10.28
Nonmoving inventories	526	54.62
Total	**963**	**100**

Inference: Here the Nonmoving inventories has the highest percentage of 54.62 and the fast moving inventories is less when compared to nonmoving inventories therefore this type of inventories are kept for a longer period since it is not moving.

4.8.2 Chart showing FSN analysis for plant number 0819 (Finished Goods)



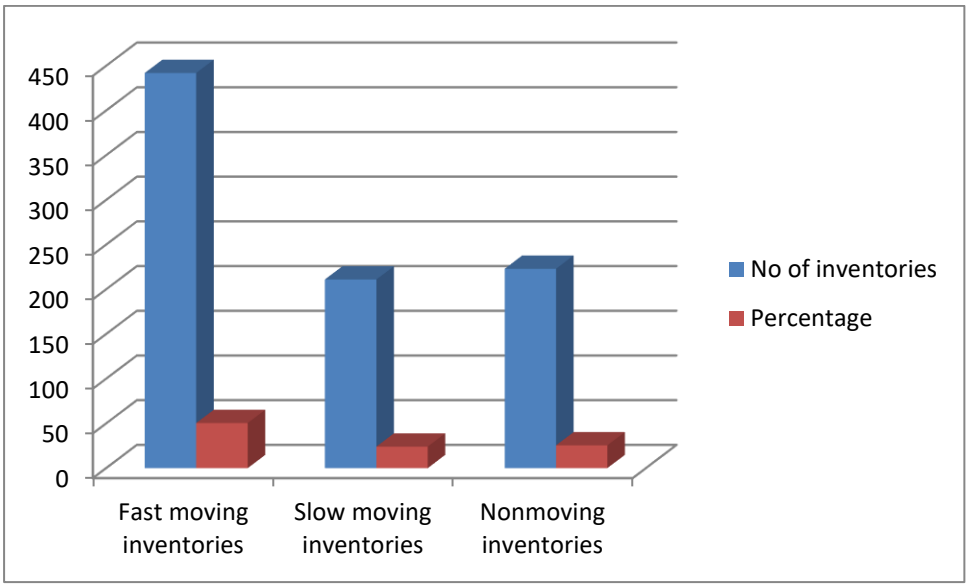
Interpretation: FSN analysis is a Fast moving, Slow moving and Nonmoving inventories analysis. Here the total number of inventories is 963 out of which fast moving inventories is 338, slow moving inventories is 99 and the nonmoving inventories is 526 which gives the percentage of 35.09, 10.28, 54.32 respectively. Therefore the fast moving inventories has the highest percentage.

4.8.3 Table showing FSN analysis for plant number 0820 (Raw Materials)

FSN inventories	No of inventories	Percentage
Fast moving inventories	442	50.45
Slow moving inventories	211	24.09
Nonmoving inventories	223	25.46
Total	**876**	**100**

Inference: Here the fast moving inventories has the highest percentage of 50.45 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold

4.8.3 Chart showing FSN analysis for plant number 0820 (Raw Materials)



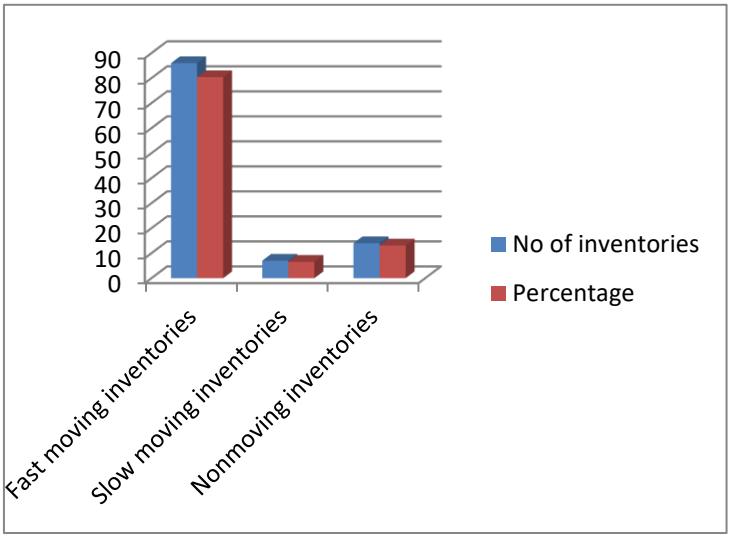
Interpretation: FSN analysis is a Fast moving, Slow moving and Nonmoving inventories analysis. Here the total number of inventories is 876 out of which fast moving inventories is 442, slow moving inventories is 211 and the nonmoving inventories is 223 which gives the percentage of 50.45, 24.09, 25.46 respectively. Therefore the fast moving inventories has the highest percentage.

4.8.4. Table FSN analysis for plant number 0820(Finished Goods)

FSN inventories	No of inventories	Percentage
Fast moving inventories	86	80.37
Slow moving inventories	7	6.54
Nonmoving inventories	14	13.08
Total	**107**	**100**

Inference: Here the fast moving inventories has the highest percentage of 80.3 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold

4.8.4.1FSN analysis for plant number 0820(Finished Goods)



Interpretation: FSN analysis is a Fast moving, Slow moving and Nonmoving inventories analysis. Here the total number of inventories is 107 out of which fast moving inventories is 86, slow moving inventories is 7 and the nonmoving inventories is 14 which gives the percentage of 80.37, 6.54, 13.08 respectively. Therefore the fast moving inventories has the highest percentage.

Chapter- 5

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS:

- It is found that the ITR for the month of July 2018 is 5.89 which is five times better than that of previous months.
- It is found that the ITR for the month of august 2018 is 6.16 and it is greater than the ITR in the month of July 2018.
- It is found that the ITR in the month of September 2018 is 7.05 which is higher than the July and august month of the year 2018.
- It is found that the ITR in the month of October 2018 is 4.7 which is very less when compared to all other months.
- It is found that the ITR in the month of November 2018 is 6.3 and it is satisfied when compared to other months.
- It is found that the ITR in the month of December 2018 is 5.72 which is less than the previous month i.e. November.
- It is found that the September month gives the highest turnover ratio of 7.05, November month is the second largest ITR i.e. 6.3, next comes the august, December and October where the turnover ratio is 6.16, 5.72 and 4.7 respectively.
- It is found that the consolidated financial statement interprets that the raw materials value in the year 2017 is more than that which is used in the year 2016 .i.e. it is increased by $65, WIP is also increased by 76$ in the year 2017, the value of finished goods had gone up to $ 141 in the year 2017 when compared to the year 2016. The inventory contact value has been decreased in the year 2017 when compared to the year 2016.
- It is found that the usage all value keeps fluctuating of the plant number 0820.
- It is found that the provision for obsolescence is a reserve which is created based on the number of months usage of the plant number 0819 here it shows that the usage for 6 months is more than that of the on hand quantity so the provision for obsolescence is negative in most of the cases.

- It is found that the classification A gives the highest percentage of cost .ie. 70.05% with only 9.58% of the inventories, classification B is like a break even where almost the cost and the percentage of the parts remains same and the classification C represents that the percentage of the cost is very low when compared to that of the percentage of the parts i.e. 9.96 and 68.48 respectively. Hence it is proved that the classification A gives the highest revenue when compared to other classification for the plant number 0819.
- It is found that the classification A gives the highest percentage of cost .ie. 70.12% with only 11.30% of the inventories, classification B is like a break even where almost the cost and the percentage of the parts remains same i.e the percentage of cost is 20.49 and the percentage of parts is 20.23.The classification C represents that the percentage of the cost is very low when compared to that of the percentage of the parts i.e. 9.37 and 68.45 respectively. Hence it is proved that the classification A gives the highest revenue when compared to other classification.
- It is found that the difference of the total asset is $ 7 million and the difference for the total liability is also $7 million. when the assets are compared to the year 2016 with the year 2017 the difference is $ 7 million so the liability also remains the same. Here the total value asset is more than that of the year 2016 when compared to the year 2017 .i.e 9,996 in the year 2017 and 9.689 in the yea 2017 and the total liability is also the same.
- It is found that the fast moving inventories has the highest percentage of 45.86 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold for the part number 0819 (raw materials)
- It is found that the Nonmoving inventories has the highest percentage of 54.62 and the fast moving inventories is less when compared to nonmoving inventories therefore this type of inventories are kept for a longer period since it is not moving for the part number 0819 (finished goods)
- If is found that the fast moving inventories has the highest percentage of 50.45 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold for the part number 0820 (raw materials).

- It is found that the fast moving inventories has the highest percentage of 80.3 and the nonmoving inventories is more than that of slow moving inventories hence, the inventories keeps moving or sold for the part number 0820 (finished goods).

SUGGESTIONS:

- Organization needs to embrace activity or proper advance to build the sales and can make benefits from everywhere throughout the divisions
- This study reveals that the computations identified with inventories like ABC examination will be simple for the isolation of raw materials and finished goods
- The company has decent inventory turnover ratio from July 2018 to December 2018
- The company should maintain the same turnover ratio and the same status in the long run.
- The company must give importance and more focus on reducing raw materials wastes, which may lead in better production of avai1able resources.
- The company must also reduce the wastage of materials while manufacturing the units because this in turn reduces the resources.
- The company can improve their sales promotion strategy.
- Every manufacturing company must use the standard cost which includes all the other expenses

CONCLUSION:

Standard cost is used to value the inventory for its legal entities, except where they use accepted alternatives such as job-order costing, percentage of completion or specific identification.

This standard cost policy applies to all the TE Connectivity entities, segments and also the business units.Every manufacturing company must use the standard cost which includes all the other expenses.

Inventory management is one of the basic task of every business. All the manufacturing firms should have more of current assets which is invested in Inventories, the company which doesn't have inventory management task will have to face more problems and the company has to maintain a record of all the raw materials and finished goods which is ready to get dispatched and then the company can reduce the cost incurred on inventories and cam increase the profit.

The companies have to use ABC analysis to classify the inventories based the percentage of part sold and the cost of the inventory.

The other objective of this report is to know how the part number works, different part number are assigned with different plant number and also to know the inventory turnover of the company.

The clients are happy about the company's products and its maintaining system which is transparency in revealing required financial data.

BIBILIOGRAPHY

1) **Colin durry(**1998).budgeting and standard costing practices. international journal of accounting,33(5)569-588
2) **Esampally, C. &Aarthi, B. (2015).** Performance of gold ETFs and gold FOFS: A comparative study. Smart Journal of Business Management Studies, 11(2), 49-60.
3) **Grazegorz Michalski**.(2009). A value oriented framework for inventory management, south east European journal of Economics(97-103)
4) **M C Bonney.**(1994).Trends in inventory management .international journal of production economics ,35(1-3)107-114
5) **Malaih Suleman**.(2005).management accounting practices
6) **Pradeep Singh.** (2008). Inventory and working capital management An empirical analysis. The IUP journal of Accounting research and audit practices (53-73)
7) **VialeJ.**(1996).Basics of inventory management ,crisp learning publisher (136pages)
8) www.googlescholor.com
9) www.researchgate.com
10) www.te.com