MANAGEMENT ACCOUNTING PRACTICES
IN
AUTOMOBILE DEALERS OF NEPAL
(A SELECTED STUDY)

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AUTOMOBILE DEALERS OF NEPAL (A SELECTED STUDY)

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Narayangarh, Chitwan

January, 2010

DECLARATION

I hereby declare that the work reported in this thesis entitled "**Management Accounting Practices in Automobile Dealers of Nepal (A Selected Study)"** submitted to the Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the Master Degree in Business Studies (MBS), under the supervision and guidance of Lecturer Bhim Narayan Upadhaya, Balkumari College, Narayangarh, Chitwan.

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Ramhari Dhakal

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ABBREVIATIONS

A/c	=	Account
ARR	=	Average Rate of Return
B.S	=	Bikram Sambat
BEP	=	Break Even Point
CFAT	=	Cash Flow After Tax
CIF	=	Cost Insurance and Freight
CM	=	Contribution Margin
CMPU	=	Contribution Margin Per Unit
CVP	=	Cost Volume Profit
EOQ	=	Economic Order Quantity
FC	=	Fixed Cost
FDI	=	Foreign Direct Investment
FY	=	Fiscal Year
i.e.	=	That is
IRR	=	Internal Rate of Return
JIT	=	Just In Time
Ltd	=	Limited
Mgmt.	=	Management
NADA	=	Nepal Automobile Dealers Association
NPV	=	Net Present Value
P/L	=	Profit and Loss Account
PBP	=	Pay Back Period
PC	=	Passenger Car
PCC	=	Pollution Control Cost
PV	=	Present Value
R & D	=	Research and Development
Rs.	=	Rupees
S. No.	=	Serial Number
SPPU	=	Selling Price Per Unit
T.U.	=	Tribhuvan University
VC	=	Variable Cost
VCPU	=	Variable Cost per Unit
ZBB	=	Zero Based Budgeting

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

Nepal has very short history of auto business, less than three decades. Few businessmen were striving for market share in our sluggish economy. Only government officials. Diplomats used vehicle as transport facility. Mostly truck, bus, minibus and taxi, seemed to be rolling in the poor roads of Nepal. Even one decade earlier only elite class of Nepalese society used to drive for luxury and prestige. With passage of time, the luxury has changed to necessity. Even middle classes have accessed to vehicle today. Vehicle has become must for businessmen and other busy persons. Diesel and petrol consumption in the fiscal year 2006/07 were 3,15,368 and 75,989 k. liters respectively (Nepal in Figures 2008: Central Bureau of Statistics). This changing environment has promoted this business and import of vehicle and related goods are increasing with growing market. In Nepalese market, light Indian vehicle like Tata (Indicia). Maruti, Mahindra and Korean light vehicle like Kia, Hyundai occupied almost 70% market share. Other light vehicles like Italian Fiat, Malaysian Proton, Korean Syangyound, American Ford and French Peugeot are also available in Nepalese market Japanese Toyota, Honda, Nissan, Mazda, Mitsubishi, Isuzu, are also established vehicles for Nepal. Now a day due to high price they are losing market share, although attractive model and quality have sustained them. Further highly expensive and high class, Germany vehicle Mercedes and BMW of 3000-5000 cc are also available in Nepalese market.

Nepal has matured automobile business with wide range of varieties. Any vehicle brand available in India is also available in Nepal, and most of the world's auto-makers have manufacturing facilities in India. Nepal's automobile market is full of models of different shapes, size and price tags. Each of these models comes with a variety of options like AC/non-AC. Power. Engine-type interior facilities like music systems and son on. The addition/deletion of these facilities raise/reduce the price as well. From Daewoo to Hyundai and from Tata to Daihatsu, all names are available in the country.

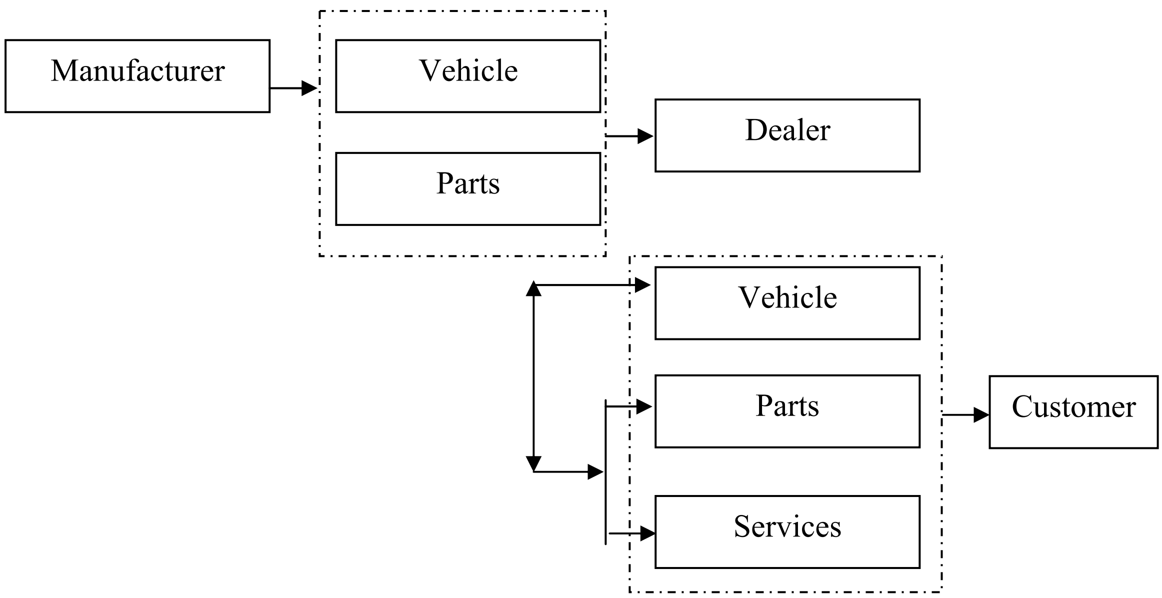
Nepal is importing vehicle and spare parts from India, Japan China, Germany, Korea, America, French, Malaysia, Italy etc.

Although Nepal has per capita income of US $ 240 (World Bank Report 2007), dealers are finding and defining Nepal as immense and growing market. This statement is also supported with increasing trend of vehicle registration. People with money increasingly prefer to invest on vehicles. They have been withdrawing money from banks and, with nowhere else to turn it, are spending it on vehicles. This is also one reason to give positive trend to the vehicle market. Institutional supports like easy financing and insurance services clan also be treated as promoters. Nepalese dealers are now not satisfied with the direct marketing strategy, they have set their own independent market strategy like mass consumption items. i.e. lucky draw, bumper uppahar, free services etc.

Automobile Dealers import Vehicles and parts from manufacturer, and sell to customers. Thus dealers create a link between manufacturer and the ultimate users/ customers. Basically dealers provide vehicle itself, with parts and services facilities. Parts and services are for after sales supports. All most all vehicle dealers deal these three categories of products/services. Selling a vehicle does not ends the business rather creates market for parts and services. Actually, they are interrelated to each other.

Figure No. 1.1

Vehicle Dealership Business



Now the auto market is marked by rising demand, cutthroat competition and lucrative but affordable deals in the passenger vehicle sector of the country. New models of cars are continuing to roll on the streets through out the year, the interest rates of hire purchase financing hit all time low and more banks aggressively entered into the retails banking, inducing more competition in financial services. Almost all banks have started financing vehicles.

1.2 Nepal Automobile Dealers' Association (NADA)

To look into the matter related to vehicle business, an association called Nepal Automobile Dealer's Association (A\NADA) was established in 2032. This association is formed to integrate businessmen dealing in vehicles, spare parts and the production of automotive items. This association also aims to exert pressure or say in decision making of government towards purchase of vehicles and related goods. More importantly this association has provided leadership to association in local level. This association is publishing 'Trade Directory' annually and other news letters periodically. To provides information about auto business it has also set up Auto Information Centre (AIC). Other district automobile associations under its umbrella are:

1. Hetauda Automobile Association
2. Morang Automobile Dealers Association
3. Western automobiles Dealers Association

Introduction of NADA in its own words, "Nepal Automobile Dealer's Association, known as NADA in short, is an organization established for the primary objective of contributing towards the automobile sector thought and organized channel. NADA is a not-for-profit organization that seeks to bring all legitimate automobile professionals under one roof to further strengthen the sector for its own member's benefit within the territory of the Kingdom of Nepal."

Objectives of it in its own words are as follows:

- To easily make available of roads transport vehicles (motorcar, truck, bus, jeep, motorcycle, tractor, tempo, etc) and all their parts, batteries, tires/tubes, bearing, transmission. Electrical equipment, related accessories, tools, automotive engines, or any other components used in automobiles.
- To preserve its members' professional interests and to represent all its members for their benefit.
- NADA is a not-for-profit organization.
- NADA can acquire assets, use it, and sell it whenever as an individual
- NADA can charge membership fee. Receive grants and donations, take loans or conduct any other activity to mobilize its resources. Prior to receiving any foreign grants and donations, NADA shall seek approval from Finance Ministry
- To contribute towards the economy of the country and therefore taking social responsibility for the development of the country.
- To plan, provide service, give certification consultancy or carry out any other task to further develop the association.
- To find a tandem with national policies related to automobiles and contribute towards the implementation of such polices.
- To establish district-level Automobile Association, help them and to unite them all.
- NADA can open its branch and sub-branch offices within the territory of the country with prior approval from the local authorities.
- To establish relationship with other like-minded national and/ or international organizations.
- To collect data related to automobiles, conduct research, and publish them in books, newspapers. etc.

- The Organization shall work guided by national policies and programs in tandem with the authorities and shall seek approval from the concerned authorities while conducting any of its works.

(Source: www.nada.org.np)

Under the active participation of NADA, NADA Auto expo has been initiated since 2055. It is definitely a new venture to Nepalese auto market, till now three successful auto shows have been organized. It is beneficial to both dealers and customers.

1.2.1 Vehicle Importers Registered in NADA

Nepal is importing vehicles from mostly form India. Apart from India, Nepal is also importing from other countries, Japan, China, Korea, Italy, Malaysia, America etc. A total of 41 dealers dealing in vehicle were registered in NADA till the fiscal years 2064/65. Out of them, 23 were dealing passenger car (PC) vehicles. The name list of vehicle importer along with their vehicle brand names are as follows.

Name of firm	**Vehicle brand**
1. Agni Incorporated Pvt. Ltd.	Mahindra
2. Ajima Trade Syndicated Pvt. Ltd.	Vehicles
3. AM International Pvt. Ltd.	Chinese Vehicles
4. Amaty Enterprises Pvt. Ltd.	Mitsubishi
5. Arun Intercontinental Traders	Maruti, Suzikui
6. Avco Internatioal Pvt. Ltd.	Hyundai
7. Bhajuranta Engineering & Sales Ltd	Ashokleland
8. Bhajuratna Agency Pvt. Ltd	Fiat
9. bhudeo Trading	Proton
10. China Motors Pvt. Ltd	Chinese vehicles
11. Continental Associates Pvt. Ltd	Kia
12. Continental Trad. Ent. Pvt. ltd.	Kia
13. Cube Intercontinental Pvt. Ltd.	Eicher
14. Deepak Gautam & Co.	Mercedes-Benz

15. Dong Feng Sales Nepal Pvt. Ltd	Chinese Vehicles
16. Dugar Autoclinci Pvt. Ltd	Nissan
17. Dugar Automobiles Pvt. Ltd .	Nissan, Manindra
18. Dugar Brothers & Sons	Nissan, Ford, Volkswagen
19. Eure Gears Pvt. Ltd.	Peugeot, Land Rover
20. Global Associates Pvt. Ltd	Samsung
21. Greenland Marketing Pvt. Ltd	Chinese Vehicles
22. Gurans Engineers Pvt. Ltd.	Nissan
23. Hansraj Hulaschand & Co.	Daihatsu, Ssangyong
24. Joshi Autoland Pvt. Ltd	Suzuki
25. Joshi Automobiles Pv.t Ltd.	Suzuki
26. Karan Motors Co.	Suzuki
27. Kedia Internatinal Pvt. Ltd	Swaraj Mazda/ Chinese
28. Mally Automobiles Pvt. Ltd.	Vehicles
29. Mally Brothers Pvt. Ltd	Vehicles
30. Nakasu Motors Pvt. Ltd	Mitsubishi
31. Nemlink INt. Tradrs Pvt. Ltd	Perodua
32. Nepal Internatinjal Business Pvt. Ltd.	Vehicles
33. Pdma Shree Pvt. Ltd	Mazda
34. Prime Global Pvt.Ltd	Chinese
35. Saakha & Co. Pvt. Ltd	Chinese Vehicles
36. Shankar Automobile Agency	Isuzu
37. Shree Himalayan Enterprises Pvt. Ltd	Suzuki
38. Sipradi Trading Pvt. Ltd.	Tata
39. Syakar Co. Ltd .	Honda
40. United Traders Syndicate Pvt. Ltd.	Toyota
41. Vijay Motors Pvt. Ltd.	Opel., Subaru

Among them some were sub dealers, Joshi Autoland Pvt. Ltd, Joshi Automobiles Pvt. Ltd, Karan Motors Co., Mally Automobiles Pvt. Ltd, Mally Brothers Pvt. Ltd were sub dealers. Same dealers had registered with different name like for Kia motors. There were two dealers registered: Continental Associate Pvt. Ltd. and Continental Trad. Ent. Pvt. Agni Incorporated Pvt. Ltd., Arun Intercontinental Traders, Bhjuranta Engineering & Sales Ltd, Cue Intercontinental Pvt. Ltd, Dugar Automobiles Pvt. Ltd, Kedia International Pvt. Ltd, Shree Himalayan Enterprises Pvt. Ltd, Sipradi Trading Pvt. Ltd, Syakar Co. Ltld etc were dealing Indian vehicles. Similaryly, Am International Pvt. Ltd, China Motors Pvt. Ltd, Dong Feng Sales Nepa lPvt. Ltd, Greenland Marketing Pvt. Ltd, Kedia International Pvt. Ltd, Prime Global Pvt. Ltd, Saakha & Co. Pvt. Ltd etc were dealing Chinese vehicles. Avco international Pvt. Ltd, Continental Trade. Ent. Pvt. Ltd, Hansraj Hulaschand & Co. were dealing Korean vehicles. Amatya Enterprise Ltd, Dugar Auto clinic Ltd. Dugar Automobiles Ltd, Dugar Automobiles Ltd, Gurans Engineers Ltd, Hansraj Hulachand, Naksu Motors Ltd, Padam Shreee Ltd, Shankar Automoi\bile Agency, Syakar Co. Ltd, United Traders Syndicate Ltd. Etc were dealing Japanese Vehiocles. Some Dealers were dealing different models of didderebnt origin, like Hansraj Hulaschand & co. dealt both Japanese Daihatsu and Korean Sangyong. Dugar Automobiles Pvt. Ltd dealt Japanese Nissan and Indian Mahindra; Dugar Brothers & Sons dealt Japanese Nissan along with American Ford. Likewise, Kedia International Pvt. Ltd dealt Chinese vehicle along with Indian Swraj Mazda, Deepak Gautam & Co .and Vijay Motors Pvt. Ltd were dealing Germany vehicles like Mercedes Benz, Opel. Subaru, French vehicle Peugeot was dealt by Euro Gears Pvt. Ltd. Bhajuratna Agency Pvt. Ltd. Was dealing Italian Fiat, Likewise, Bhudeo Trading and Nemlink Int. Trader Pvt. Ltd were dealing Malaysian Proton and Perodua respectively.

1.3 Road Statistics

Compared to the rate in which the number of vehicles registration and import growing, the roads have emailed all the time stagnate. With every passing year, congestion in the streets of the cities is increasing. The road statistics showed that, there is not such significant development in road construction Road is one of the infrastructures of the development. But it has not developed and low initiation has been taken for the development of it although government has levied heavy tax in vehicle registration, import, licensing etc.

Table No. 1.1

Road Statistics

Length in Km

Types of Road	2005/06	2006/07	2007/08
Black-topped	4,811	4,871	5,301
Graveled	4,595	4,697	4,613
Earthen	7,541	7,614	7,366
Total	16,947	17,182	17,280

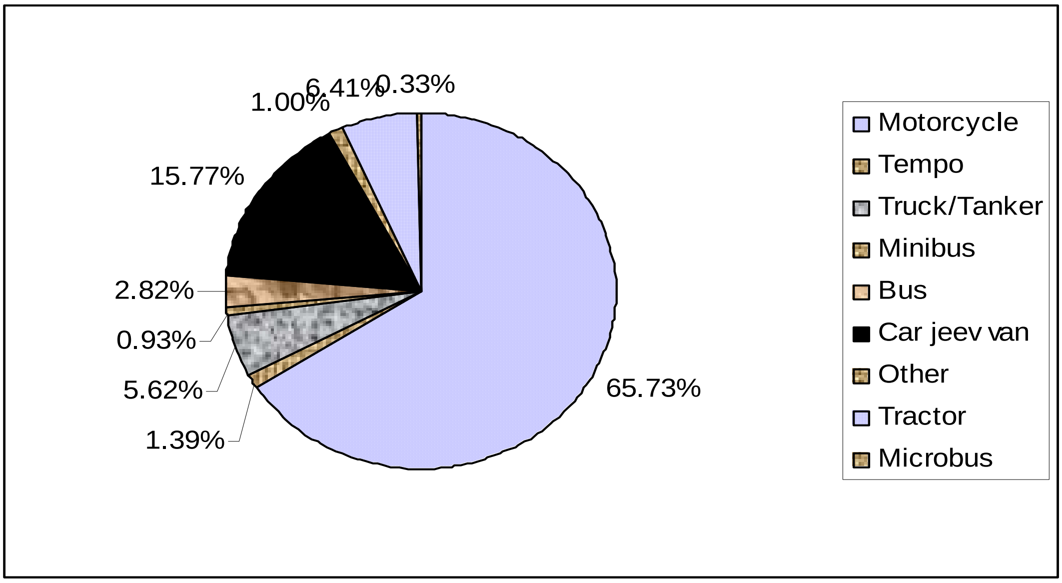
(Sources: Central Bureau of Statistics)

By the end of the fiscal year 2007/08, the county has only 17,280 km road, adding all black-topped, graveled and earthen. In the fiscal year 2005/06 status of black topped road was 4,811 km, with 1.25% increase it was 4,871 km in the fiscal year 2006/07 and in the fiscal year 2007/08 it reached 5,301 km with 8.82% increment. In total, the road increased by 1.39% and 0.59% in the fiscal years 2006/07 and 2007/08 respectively.

1.4 Proportion of Various Vehicle Registration in Number

Figure No. 1.2

Proportion of Various Vehicle Registration in Number



Source: Department of Transport, Government of Nepal

The figure shows the proportion of various vehicles in numbers till the end of the fiscal year 2064/65. Motorcycle occupied 65.73% in total. Car jeep and van stood at second with 15.77% .Tractor occupied 6.41% and truck/tanker occupied 5.62% in the total number. Similarly, bus, tempo, minibus, microbus and others occupied 2.82%, 1.395, 0.93%, 0.33%. and 1.00% respectively, the proportions of various vehicles are in total numbers not in total value.

1.5 Import of Vehicle and Related Commodities

Mainly vehicles and spare parts are imported from India, Despite India; Nepal is importing vehicle and related commodities from other countries also. Most of the world's auto-makers have manufacturing facilities in India in joint investment, so imports from India is increasing and import from Japan is decreasing. Nevertheless, imports form countries like, Korea and Malaysia are increasing. Therefore imports of vehicles and related goods can be divided into two categories, one from India and another form other countries. The figure shows that Nepalese market has been dominated by Indian autos; In average, in the last six years Indiana automobiles has capered, almost 86.02% shared and the rest by others in light vehicles. The figure shows the market share of light vehicle (Passenger car PC) in terms of Indian versus others.

Figure No. 1.3

Indian Vs. Other Market Share

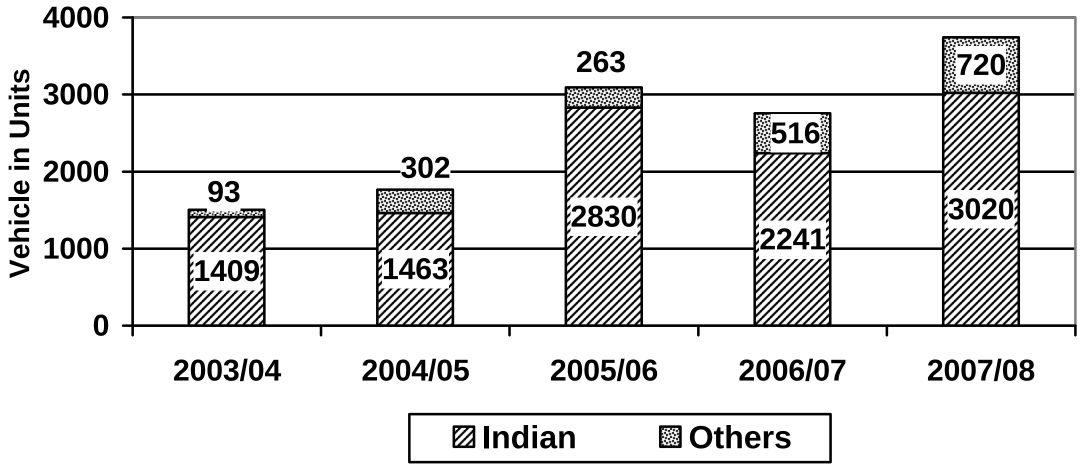


Table No. 1.2

Import of Vehicle and Related Commodities from India

(Rs. In million)

S.n.	Items	2003/04	2004/05	2005/06	2006/07	2007/08
1	Vehicles & Spare Parts	4259.1	3857.8	4948.2	5133.1	5203.8
	Percentage change	-	-9.42%	28.26%	3.74%	1.38%
2	Tyres Tubes Flaps	175.8	252.2	246.1	228.3	303.3

Sources: NRB, Current Macroeconomic Situation

In the fiscal year 2003/04 imports of vehicle and spare parts from India were Rs. 4,259.1 million. It was Rs. 3,857.8 million with 9.42% decrease in the fiscal year 2004/05. But in the fiscal year 2005/06 it increased by 28.26% to Rs 4948.2million. In subsequent two years, it recorded Rs. 5,133.1 million and Rs. 5,203.8 million with small increment of 3.74% and 1.38% respectively. During last tow years the growth rate of import decreased gradually.

Table No. 1.3

Import of Transport Equipment & Parts from Other Countries

(Rs. In million)

S.N.	Items	2003/04	2004/05	2005/06	2006/07	2007/08
1	Vehicles & Spare Parts	1813.7	1684.5	1625.6	1751.5	2124.4
	Percentage change	-	-7.12%	-3.50%	7.74%	21.29%
2	Tyres Tubes Flaps	194.8	148.4	194.9	159.4	158.3

Sources: NRB, Current Macroeconomic Situation

The import form other countries has decreased up to year 2005/06. It decreased from Rs 1,813.7 million to Rs. 1,684.5 million in the fiscal year 2004/05 with 7.12% decrease. It further decreased by 3.50% to Rs 1625.6 million in the fiscal year 2005/06. It increased by 7.74 to Rs. 1751.5 million in the fiscal year

2006/07. Then again it increased by 21.29% to Rs 2124.4 million in the fiscal year 2007/08.

Car/ Jeep/Van were imported more than other vehicle from overseas countries. The table shows import of different vehicle category wishing CIF (Cost, Insurance and Freight) value. In the Fiscal year 2003/04, the import of car/ Jeep/Van was 899,062,000 in CIF value which decreased by 34.47% to 589,183,000 CIF value in the fiscal year 2004/05. It increased by 14.39% to 673,979,642 CIF value in the fiscal year 2005/06. It again decreased by 11.69% to 595,200,639 CIF value in the fiscal year 2006/07. In the year 2007/08 it increased by 38.42% to 823,896,447 CIF value.

Table No. 1.4

Import from Overseas Countries

(Excluding India and Tibet) (In CIF Value)

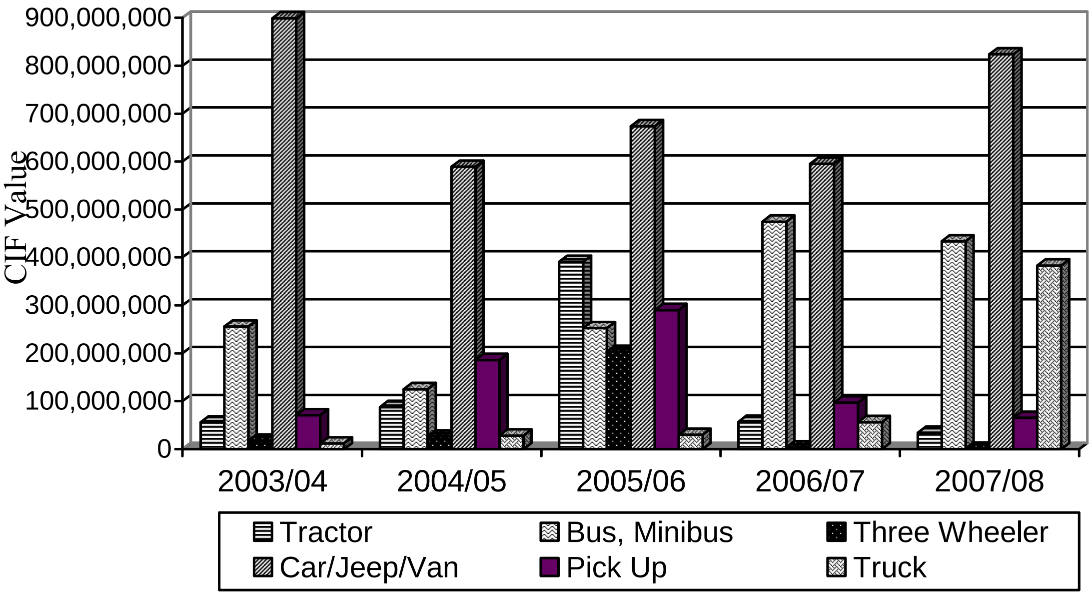
Automobiles	2003/04	2004/05	2005/06	2006/07	2007/08
Tractor	56,058,000	87,672,000	390,911,223	57,092,702	34,289,626
Bus, Minibus	255,701,000	125,310,000	252,592,280	474,657,705	433,631,100
Three Wheeler	17,992,000	26,532,000	203,228,976	3,962,250	1,148,533
Car/Jeep/Van	899,062,000	589,183,000	673,979,642	595200,639	823,896,447
Pick Up	70,716,000	185,903,000	290,256,093	97,018,760	65,225,340
Truck	12,030,000	28,182,000	29,751,984	56,252,012	383,249,971

(Source: Nepal Overseas Trade Statistics, TPC)

Import of tractor from overseas increased gradually from 56,058,000 to 390,911,223 CIF value from the fiscal year 2003/04 to 2005/06. But it decreased gradually in the following year and reached to 34,289,626 CIF in the fiscal year 2007/08.

Figure No. 1.4

Import of Vehicles from Overseas Countries



Import trend of Bus/Minibus Was Fluctuating. It decreased from 255,701, 000 to 125,310,000 CIF value in the fiscal year 2004/05. It increased gradually then reached to CIF value of 474,657,705 in the fiscal year 2006/07. Then again it decreased to 433,631,100 CIF value in the fiscal year 2007/08. Import of three wheeler increased from 10,992,000 to 103,228,976 CIF value from the fiscal year 2003/04 to 2005/06 and then decreased drastically to 3,962,250 CIF value in the fiscal year 2005/06. It increased to CIF value in the fiscal year 2006/07. Import of pickup was also fluctuating nature, it increased up to 290,256,093 CIF value in the fiscal year 2005/06 and gradually decreased to 65,225,340 CIF value in the fiscal year 2007/08.

Trend for import of truck was increasing with small increment, up to fiscal year 2005/06. But in the fiscal year 2006/07. It increased nearly 7 times and reached to 383,249,971 CIF value. The import of tractor, three wheeler and pick up were highest in the fiscal year 2004/05.

Nearly one decade earlier, the proportion of import from India and overseas countries were almost same. After adverb of foreign direct investment (FDI) in

India there was considerable increment in production of auto products in India. So import from India was increasing compared to overseas countries. The price was also a crucial determinant. Dore to high price, import of Japanese vehicle was decreasing. Being landlocked country, import from overseas countries was expensive for Nepal. The import of vehicle was largely affected by government policy, market for the vehicle, price fluctuation, economic condition, financial frailties available etc.

1.6 Statement of the Problem

Automobile business is giving direct and indirect employment more than tow lakh people and contribution in range of 18%-20% contribution to government tax revenue (NADA Auto News: Aswin 2065). So it is really important sector of Nepalese economy. Spare parts and after sales services are more important in automobile business. Only selling the vehicles is not enough so they also have to mange after seal services properly. Managing this entire thigh has posed problem to the vehicle dealers. The management should use management accounting tools to analyze the problem and make amicable decision.

The research question arises whether the Nepalese vehicle dealers are practicing management accounting or not? Are the dealers using the management accounting as a tool of management? This research will be focused on following research questions.

1. Whether Nepalese Vehicle dealers are practicing management Accounting or not?
2. Which of the Management Accounting tools are mostly employed by them?
3. What are the major problems in adopting the management accounting tools?

1.7 Objectives of the Study

The core objective of the study is to examine the pattern of management Accounting Practiced by the selected vehicle dealers of Nepal. The objectives can be listed in following ways:

1. To Study the current management practice regarding management accounting in selected dealers.
2. To identify the areas for effective use of Management Accounting Tools in the vehicle dealer's business.
3. To give recommendations improve the performance of vehicle dealers' business.
4. To provide suggestion to solve the problem arise in application of management accounting tools.

1.8 Significance of the Study

Highly Competitive and changing environment of automobile business has posed serious problems to management. So management Accounting should be practiced in Planning and controlling of the automobile business. This study may be important in following grounds:

1. It will help to know the position of Management Accounting currently practiced by Nepalese Vehicles Dealers.
2. It will help to find out problems and solve the problems pertaining to use of management Accounting tools.
3. It will provide information about application of Management Accounting tools and promote the use of the management accounting tools.

1.9 Limitation of the Study

This study is concerned with light vehicle (passenger car) dealers therefore it does not include two wheelers dealers and heavy vehicle dealers. In many case same vehicle dealers are dealing both light and heavy vehicle. Such dealers come under this study as it is impossible to differentiate the management accounting used by such dealer for two products separately. The study is made on the five dealers. The study is not free from the following limitations.

1. It studies on Management Accounting tools only.
2. It does not consider the economic factors, human factors and other factors.
3. This study focuses on small car only therefore it does not include two wheeler dealers and other heavy vehicle dealers.
4. It does not study all the vehicle dealers of Nepal: rather it will study only five dealers.
5. As the study focuses on four wheeler dealers, finding drawn may or may not be appropriate for two wheeler dealers and other heavy vehicle dealers.

1.10 Scheme of the Study

The study has been divided into five chapters, Chapter I is the introduction parts

Which includes general background and status of auto business in Nepal? It further specifies objectives, significance and limitations of the study.

Chapter II is the literature review which include theoretical aspect of management accounting and review of management accounting tools. This chapter also includes review of previous research conducted on management accounting practices. Finally it specifies the major findings of previous research and difference between the previous and this research.

Chapter III is about research methodology which specifies and gives glimpse of sampling, data collection procedure and statistical tool used in this research.

Chapter IV is the data presentation and analysis part. The collected data have been presented in tabular form and analyzed in this part. This chapter includes major findings of this research.

Finally, the chapter V includes summary, conclusion and recommendations.

CHAPTER-II

LITERATURE REVIEW

Dynamic and uncertain environment has posed fatal threaten to the managers and entrepreneurs in conducting their business activities. Information is powerful weapon to tackle, handle and track the dynamic environment in flavor. A lot of updated information of both external and internal is needed. Since 1950s internal users (manager of all level, including board of directors, chief executive officer, general manager etc and other line authorities) are getting more focus along with the external users (stockholders, creditors, tax authorities, suppliers, customer etc) for accounting data, This has led to emergence of management accounting. The goal of management accounting is not to be an accountant; rather it aims to produce confident and capable manager. Management account provides information to management for planning, controlling and decision making. Past data is needed to evaluate present achievement and forecast future. Management accounting is a systematic way to access the needed information to internal users such as managers of different levels.

In ordinary language, any system of account which assists in carrying out its functions more efficiently may be termed as management accounting. (Munankarmi, 2003:1.05)

"In ordinary language, the term 'managerial accounting' is used to describe the modern concept of account as tool of management in contrast to the conventional annual or half-yearly account prepared mainly for information of proprietors, the object being to so expand the financial and statistical information as to shed light on all phases of the activities of organization."(Goyal)

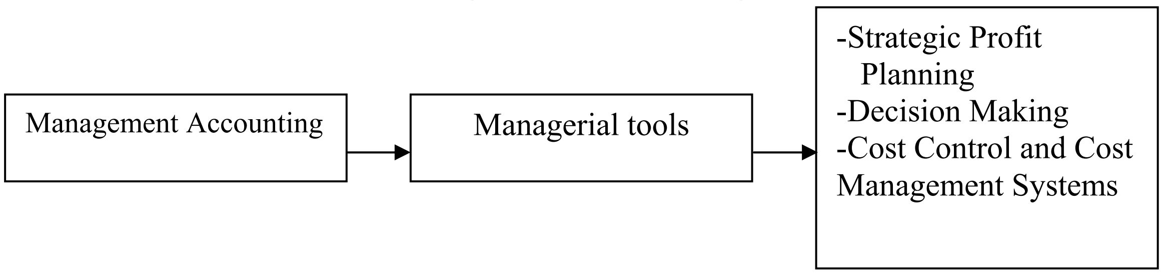
"Management accounting is the term used to describe the accounting methods, systems and techniques, which coupled with special knowledge and ability, assist management in minimizing losses. It is essentially the application of managerial principles and know-how to the planning development, execution and control of corporate plans.” (Batty)

“Managerial Accounting is the process of identifying, measuring, analyzing, interpreting and communication information for searching the goals of the company. Managerial accounting is an integral part of the management process and managerial accountants are important strategic partners in the company’s management team.’’(Hilton)

Managerial accounting is emerging and developing as a separate discipline. It is not confined to routine clerical work; rather it is a dynamic and challenging task. It is a management tools in the hand of manager. Management is getting things done through others. Planning, controlling and decision making are the important functions of management, which cannot be carried out in vacuum. Every activity should be based on decision making and controlling. It aims to simplify complicated decision making.

Figure No. 2.1

Management Accounting



Managerial accounting activities include collecting, classifying, processing, analyzing and reporting information to manager for effective management and long term planning. Managerial accounting emphasized two aspects;

- Presenting the accounting information in proper way before the management.
- Such accounting information being placed in such way as to assist management in its operation and functions. (Bajaracharya, & et. Al, 2004:31).

Finally management accounting is a tool in the hand of management to lead their organization in this multi-faceted and dynamic world.

2.1 Review of Management Account Tools for Vehicle Dealers

Management accounting performs broad functions from collecting data to interpret the data for management. Various internal information (Capacity available, current capacity utilization, cost structure, past results etc) and external information (competitors' position, social-political movements, market characteristics, globalization etc) are needed to procure and store. Management accounting is a system which collects, stores, retrieves, modifies, analyzes, interprets and provides concise information/data covering entire filed of business for the management. Thus management accounting helps management in planning, controlling and decision making. Management accounting tools have wide application for all kind of manufacturing and trading, small and large business.

2.1.1 Capital Budgeting

Capital budgeting is an important managerial tool. One duty of financial manager is to choose investments with satisfactory cash flows and rates of return. Therefore, a financial manager must be able to decide whether an investment is worth undertaking and be able to choose intelligently between two or more alternatives. To do this, a sound procedure to evaluate, compare, and select projects is needed. This procedure is called capital budgeting. Capital budgeting is investment decision-making as to whether a project is worth undertaking or not. Capital budgeting is basically concerned with the justification of capital expenditures. It may be decision regarding replacement, expansion diversification etc. Characteristics of capital budgeting is as follows

- Long term investment
- Bulk amount of investment
- Effect of time value of money
- Risk and uncertainty

"Capital budgeting is of paramount importance as a framework of future development, and as major determinant of efficiency and competitive of power of a firm. It relates to fixed or long term assets, which are defined as assets that are in operation and yield returns over a period of time. It, therefore, involves a current outlay in return for a series of anticipated future benefits. (Khan and Jain)

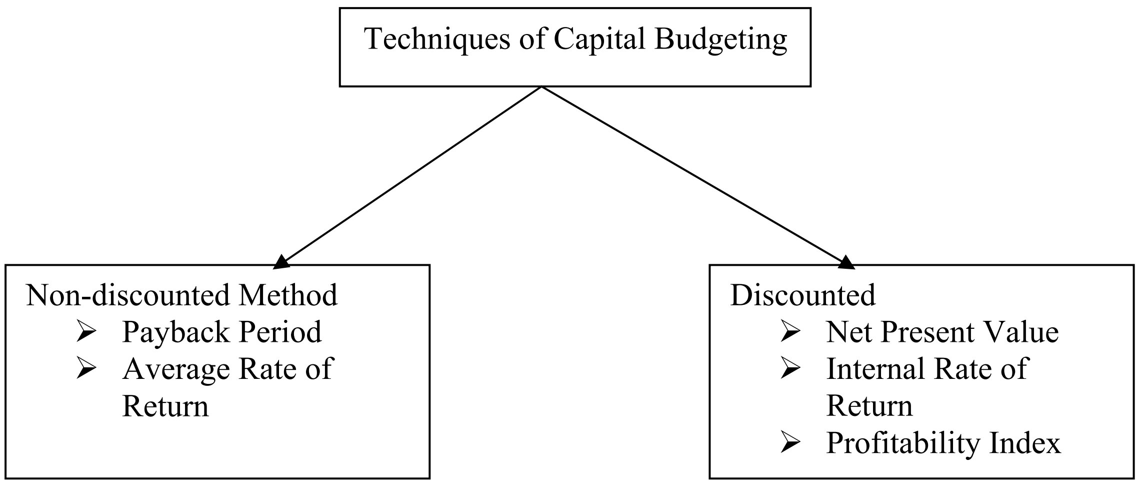
Procedure of Capital budgeting are

- Estimating the project's net cash flows
- Measurement of benefit of the investment
- Evaluation of risk associated with the investment

There are various techniques of capital budgeting. These techniques can be categorized into two categories via, non-discounted and discounted method.

Figure No. 2.2

Capital Budgeting Techniques



A) Non discounted Cash Flow Method

This is unsophisticated and traditional method. These techniques do not consider the time value of money while evaluating the projects. Payback period (PBP) and Average rate of return (ARR) fall under this category.

i) Payback Period (PBP)

The payback period is the number of year required to recover the initial investment. It does not consider the inflows after the payback period. The projects having short payback period are desirable.

In case of even cash flows

$$\text{Payback Period} = \frac{Initial\ Outlay}{Constant\ Annual\ Cashflows}$$

In case of uneven cash flows

$$\text{Payback Period} = Minimum\ Year + \frac{Amount\ to\ be\ Recovered}{Cashflow\ During\ the\ Year}$$

Where Amount to be recovered = Investment - Minimum year's cumulative cash flow advantages of payback period

- Use of Cash flow
- Easy to calculate and understand
- Emphasizes liquidity

Disadvantages of Payback period

- Ignore the time value of money
- Ignores cash flows occurring after the pay pack period
- Not a measure of profitability

ii) Average Rate of Return (ARR)

It is also called the accounting rate of return. It is based on the average rate of return after tax over-initial outlay. Higher rate of return is preferable. It is computed as follows:

$$\text{Accounting Rate of Return} = \frac{Average\ Net\ Income\ after\ Tax}{Initial\ Outlay}$$

If ARR is more than minimum acceptable rate of return the investment decision is done. Otherwise the project is rejected. ARR doesn't consider the timing of the cash flows and time value of money. So it may give unsatisfactory internal rate of return. That's why it is not used so frequently.

Advantage of Average Rate of Return

- It is simple to understand and use
- It cans be easily calculated with the help of accounting data
- It uses the entire streams of cash flows

Disadvantage of Average Rate of Return

- It uses only accounting profit
- It ignores the time value of money
- It ignores the length of projects lives
- It ignores reinvestment of the profit

B) Discounted Cash Flow Method

Unlike traditional method, discounted cash flow method considers the time value of money, so it is regarded as superior.

i) Net Present Value (NPV)

It is widely used method. It is present value of future returns discounted at the firm's cost of capital, minus the cost of investment. This method requires the determination of three items of for a project.

- Initial cash outflow
- Future net cash inflow and
- Minimum required rate of return

Mathematically,

$$NPV = \frac{CF1}{(1+k)^2} + \frac{CF_2}{(1+k)^2} + \text{...............} + \frac{CF_n}{(1+k)^n} - I0 = \sum_{t=1}^{n} \frac{CF_t}{(1+k)^t} - I_0$$

= (Present value of future cash flows) - Initial outlay

$= (PVIFA_{K\%,n}) - NCO$

Decision

If NPV is positive (NPV>0) the projected should be accepted. In case of mutually exclusive projects higher NPV is preferable.

Advantages

- Use of cash flow
- Considers the time value of money
- Consistent with goal of shareholder wealth maximization

Disadvantages

- Sensitive to discount rates
- Complicated

ii) Profitability Index (PI)

Profitability index is also called benefit-cost ratio. It is the ratio of the present value of the future cash flows to initial outlay.

$$\text{Profitability Index} = \frac{Present\,Value\,of\,the\,Cash\,Inflow\,(TPV)}{Present\,Value\,of\,Cash\,Outflow\,(NCO)}$$

Disadvantages of Profitability Index

- Nit easy to determine discount rate
- Ranking may be different with different discount rate

iii) Internal Rate of Return (IRR)

The internal rate of return is usually the rate of return that a project earns. It is defined as the discount rate, which equates the aggregate Present Value (PV) of the net cash in flows (CFAT) with aggregate Present Value of the cash out flows of a project. In other words, it is that rate which gives the project net present value zero. The internal rate of return is determined on the basis of trial and error.

For Trial and Error method

PV inflows = PV investment costs

$$\frac{CF_1}{(1+IRR)^1}+\frac{CF2}{(1+IRR)2}+\frac{CF3}{(1+IRR)3}+\ldots\ldots\ldots\ldots\frac{CFn}{(1+IRR)n}-I_0=0$$

Or,

$$\sum_{t=1}^{n}\frac{CFt}{(1+IRR)t}-I_0=0$$

The project having IRR greater than required rate of return is preferable. In case of mutually exclusive projects the project with higher IRR should be accepted.

Advantage of Internal Rate of Return

- Use of cash flow
- Recognized the time value
- Consistent with the firm's goal of shareholder wealth maximization

Disadvantages of Internal Rate of Return

- Possibility of multiple IRRs
- Can involve tedious calculations

2.1.2 Cost segregation into Fixed and Variable

Cost means monetary measure of the sources sacrificed/foregone for a particular purpose. IN other word payment of money/money worth to get something is the cost. "Different cost for different purposes", in organization there may be various types of cost. These costs should be accumulated and classified, analyzed and grouped and controlled. So that the cost and unit cost can easily be determined. Beside this, cost should be controlled. Which need behavior identification? It helps to conduct special analysis for planning controlling and decision making.

On the basis of behavior cost can be categorized into the three categories, namely:

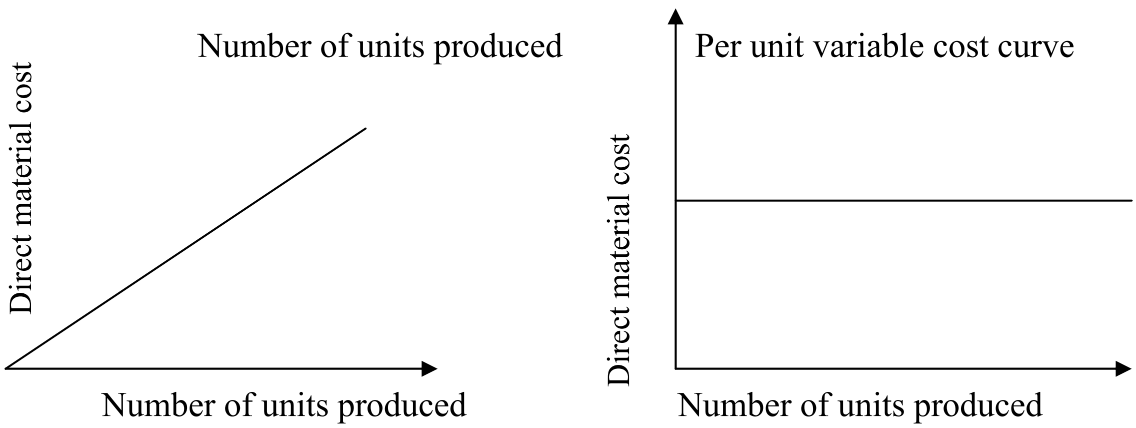
1) Variable cost
2) Fixed cost and
3) Step variable cost
4) Semi Variable Cost

1) Variable cost

"Variable cost are the costs that tend to vary in direct proportion and same direction to change in production activity, sales activities or same other measures of volume/cost driver. The costs of these inputs increase/decrease in proportion to increase/. Decrease in volume or cost driver." (Hongren , Foster and Datar)

Figure No. 2.3

Variable Cost



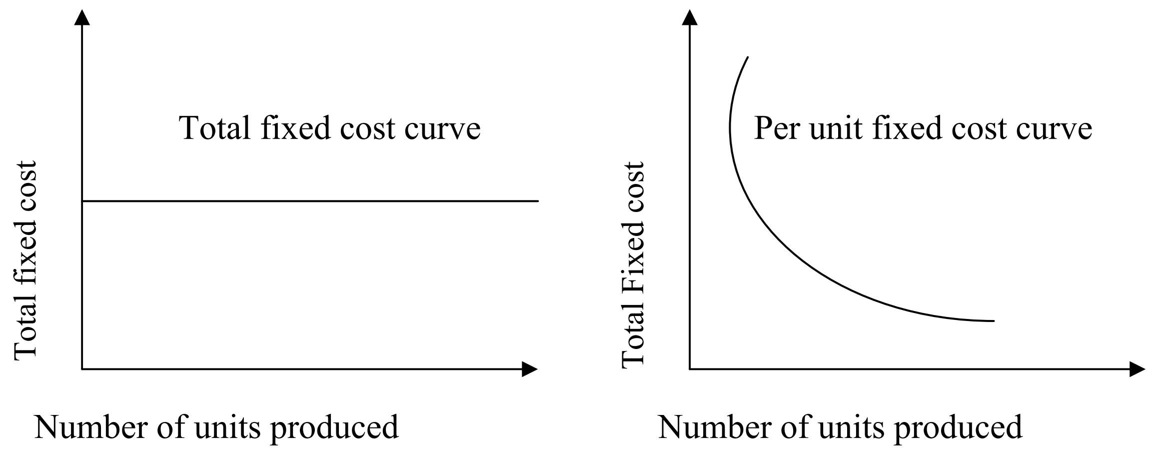
Such type of cost increase as the production/activity increase and decreases when production/activity volume is decreased in same proportion and direction. But per unit cost will be fixed as shown in the figure. Direct material/spare parts in workshop, commission of sales are few examples of variable costs. The consumption of engine related spares increase with increase in engine overhauled (activity), so this is the variable cost.

2) Fixed Cost

If any cost remains constant in total at any activity level of activity within the relevant range, it is called fixed cost. It does not show affinity with activity level, as time passes these cost are accrued. Like administrative expenses, salary, interest etc, whatever is the sales volume it would be constant.

Figure No. 2.4

Fixed Cost

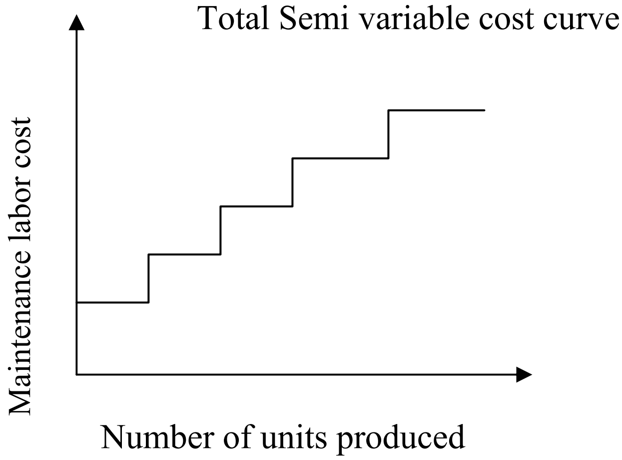


The figure shows that the total fixed cost will be constant irrespective of activity level and fixed cost per unit will decrease with increase in level of activities.

3) Step Variable Cost

Figure No. 2.5

Step Variable Cost



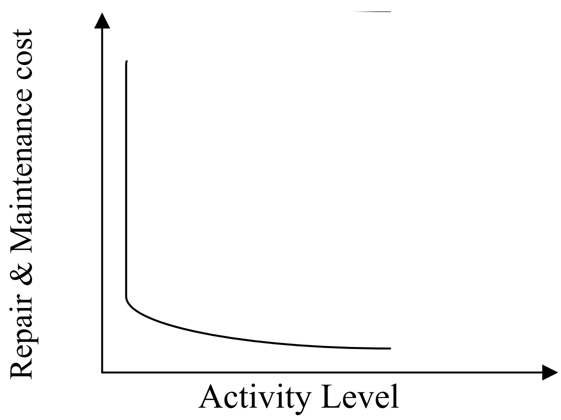
It will be constant to certain level of activity then will changed and again will be constant and so on as shown in figure. Indirect lab our cost can be taken as the example of step fixed cost. It is also called moving fixed cost.

4) Semi-variable Cost

It is also known as mixed cost as it is hybrid cost consisting of both variable and fixed cost. So, neither it is perfectly variable nor absolutely fixed with respects to volume of activates. It is not fixed in both total and per unit, like repair and maintenance cost.

Figure No. 2.6

Semi Variable Cost Curve



Such type of cost should be separated into variable and fixed cost for various decision making purpose. It helps in pricing, flexible budget making, cost-volume profit (CVP) analysis, alternative decision making. Cost estimation and segregation plays important role in planning and decision making. The term 'cost' plays vital role not only in cost accounting rather it is equally important in planning and decision making. Estimating, control and cost management is base for making profit. It has wide application, of them some are:

- Product cost determination
- Cost volume profit analysis
- budgeting
- Cost control
- Price determination
- Bidding for contracts and special offer
- Make of buy decision
- Further processing decision

Methods for Cost Segregation are as follows:

A) High and Low Method

In this non sophisticated method, difference in cost of two activity level (high and low) with in relevant range is taken into consideration. In the words of Jain and Narang, "As the name suggest, this method considers two levels of activity to split cost. It considers the out put at different levels i.e. high or low point is compared with the amount of expenses incurred at these different periods.' These data is taken from old rescores of organization.

$$\text{Variable cost per unit (VCPU)} = \frac{\text{Cost at higher level} - \text{Cost at the lowest level}}{\text{Output at highest level} - \text{Output at the lowest level}}$$

$$\text{Fixed cost per period} = \text{Total Cost} - (\text{VCPU} \times \text{Output})$$

$$Y = FC + VCPU \text{ X Units}$$

Where,

Y = Mixed cost

FC = Fixed cost, and

VCPU = Unit Variable Cost

This Method is Simple to use. However as it considers only two points, it may lead wrong conclusion. Only two points are not enough to define the complete cost behavior.

B) Regression Analysis/Least square methods

This method assumes linear relationship between dependent and independent variables. Cost depend on level of activates. As level of activities increases cost also increases. Regression analysis further assumes the magnitude of change is same. It provides best-fitting straight line eliminating judgmental estimate at all. It is a statistical method. It determines regression by minimizing the sum of the squares of the veridical distances between the actual Y values and the predicted values of Y.

$$Y = a + bX$$

Slope of the regression line: $b = \dfrac{n(\sum XY) - (\sum X)(\sum Y)}{n(\sum X^2) - (\sum X)^2}$

Y-axis intercepts: $a = \dfrac{\sum Y}{n} - b\dfrac{\sum x}{n}$

Where,

X is a value of the independent variable

Y is a value the dependent variable

N is the number of items in the sample

$\sum x$ is the X variable summed

$\sum Y$ is the Y variable summed

$\sum x^2$ is the X variable squared and the squares summed

$(\sum X)^2$ is the X variable summed and the sum squared

$\sum y^2$ is the Y variable squared and the squares summed

$(\sum Y)^2$ is the Y variable summed and the sum squared

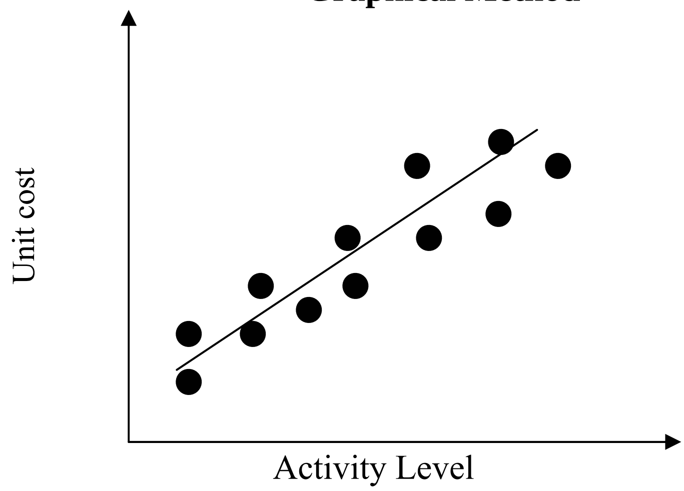
$\sum XY$ is the sum of the products of X and Y

It is more accurate than high low point method. It reduces the error. But it is complicated and time consuming. The reliability depends on the degree to which the independent variable (Activity measure) can explain the change in the dependent variable.

C) Graphical method/Visual fit method

Figure No. 2.7

Graphical Method



The figure shows graphical method of cost segregation. This is a simple method which uses scatter diagram. Costs of different activities are plotted then line is drawn in judgmental basis. It's subjective and results may be different with different people and estimates.

D) Average Method

In this method simple average is done to segregate variable and fixed cost. Although it is quite simple method, it does not give accurate results. So it is rarely used.

E) Accounting estimate method

It is also a kind of judgmental method. Department manager and accounting personnel analyze each item of cost ledger and segregate them into variable and fixed cost. To segregate the miss cost, they will arrive at certain agree percentage, which will best describe the cost behavior judgmentally.

F) Engineering Method

It is the new and sophisticated method, detailed analysis of work methods are done. Standard input and standard costs are determined, time and motion study is carried out then cost behavior is found out. With detailed study cost pattern for various activity level are determined. It is highly accurate method but time consuming and expensive.

2.1.3. Tax Effect Analysis

In the words of Seligman tax is "compulsory contribution from a person to the government to defray expense incurred in the common interest of all without reference to special benefit conferred. "In simple language tax is a liability to pay an amount to the state. This tax is unavoidable contribution to government. Tax plays crucial role in planning and decision making. So it should be planned and managed properly. Tax planning is done to minimize tax burden and maximize the profit. Managers have to consider tax factor while planning business activity.

For the purpose of enhancing the investment environment in a country, the government provides different types of facilities to the business organizations. Such facilities include reduction in tax rate, providing tax holiday, investment allowance, depreciation facility etc, tax planning means the use of all these facilities given by the government to reduce the tax liability. (Kandel, 2003:151)

Tax planning is scientific, economic, legal and ethical planning activity to use various incentives concessions allowance, rebate etc. It has wide scope, the relevant aspects are:

Long term

- Selection Of business
- Selection of product
- Selection of location
- Selection of sources of capital
- Size of business

Short tem

- Acquisition of Fix assets
- Repair and maintenance
- Pollution Control Cost (PCC)
- Research and development (R &D)
- Stock valuation
- Lease or buy

Analysis of tax effect provides various benefits for organization they can be summarized as follows

- Saves tax and increases profitability
- Avoids unnecessary worries, tensions and administrative hassles
- Helps in analysis of risk
- Enhance competitive abilities etc.

2.1.4 Standard Costing

It is management accounting tool for management control. Control is an important function of management. With control, objective of organization can not be achieved. For control actual performance should be compared with predetermined costs/level of performance. Then deviation should be found out and corrective action should be taken on time.

Standard cost for a given job is the predetermined cost to complete the job as per specifications. Standard costing is a system before starting the production and then comparing this with the actual costs of the job after completing the production. The difference between the predetermined or standard costs and the actual costs is termed 'the variance." (Bajaracharya & et al, 2004:495)

Application of standard costing

- **Budgeting**

  Budgeting is numerical expression of action. The budget is prepared with detailed analysis of every activity. Direct lab our, direct material and manufacturing expenses are the main components of budget. To set budget standard costing provides bases.

- **Economic Decision**

  Standard costing provides appropriate standard for each activity, which helps in making decision regarding special offer, further processing etc.

- **Pricing Decision**

  Vehicle dealers have to set price for their vehicle, spare and services. Standard costing gives data about these products. Actual outcomes are compared with estimated so it helps in fixing prices for their product

- **Cost control**

  To control is compare the actual output with standard one, find deviation and take corrective action promptly. Standard costing measures the deviation, search the reasons and take corrective action to keep the outcome within acceptable limit.

2.1.5 Break even Analysis/Cost Volume Profit Analysis

Cost volume profit is a supplementary tool of profit planning, which studies revenue/ cost with respect to the sales. In the words of Drury, "cost volume profit analysis is a systematic method of examining the relationship between changers in activity (i.e. output) and changes in total sales revenue expenses and net profit. As a model of these relationship cost volume analyzes, simplifies the real world conditions that a firm will face. First of all 'no loss no profit' situation is found then, on the basis of the corner stone further profit planning is done. CVP analysis studies important variable such as selling price, sales volume, expense and tax. These variables have unique relation .for different organization. Cost volume profit analysis is in immensely helpful for developing alternative strategies in sales planning and the cost estimation
Since, fixed cost remain constant within relevant range, the fixed cost curve is parallel of 'OX' axis. Variable costs slope upward form the origin to right but the slope depends on variable cost ratio.

In this figure, 'OX' axis measures the units where as 'OY' axis measures revenue cost and profit. Here,

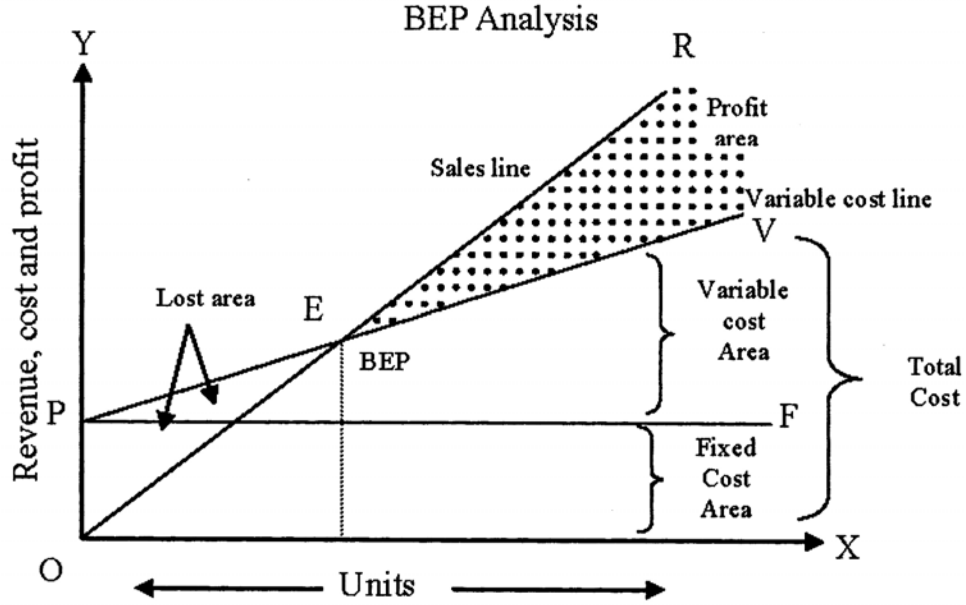
PF is the total fixed cost curve

PV is the total variable cost curve

and or is the total revenue curve

Figure No. 2.8

BEP Analysis



Here, the revenue curve intersects the total cost curve point E. this point is called break even point. At this point, the total revenue equals the total cost. The graph states that if the company can reach the point of the BEP it can generate sufficient revenues to cover all of its operating expenses.

Approaches to CVP and BEP

The cost-volume profit relationships and the break-even point can be analyzed through different approaches. Mainly, the break-even-point and other required cost-volume profit relationships could be explained through different methods.

1) Variable income statement method
2) Contribution Margin Method
3) Mathematical Formula Method
4) Graphical Method

1) Variable Income Statement Method

	Sales in unit	XXX
	Sales Revenue	XXX
Less: -	Variable Cost of Goods Sold	XXX
	Contribution Margin	XXX
Less: -	Fixed Cost	XXX
	Net Income before Tax	XXX

2) Contribution Margin Method

Contribution Margin reflects the revenue remaining after covering all variable costs. Contribution Margin is the excess of sales revenue over variable costs. So, contribution margin means how much is left from sales revenue, after covering variable expenses that are contributed toward the covering of fixed expenses and then toward profit for the period.

Total Contribution Margin= Total Sales Revenue - Total Variable Cost

CMPU = SPPU - VCPU

Contribution Margin Ratio is equal to contribution margin divided by revenue. It can be calculated by using either per unit or total revenue minus total variable cost information as follows:

$$\text{Sales Revenue} = \frac{\text{Sales Revenue - Variable cost}}{\text{Sales Revenue}}$$

$$\text{C/M Ratio} = \frac{\text{SPPU - VCPU}}{\text{SPPU}}$$

$$\text{C/M Ratio} = 1 - \frac{\text{Variable cost}}{\text{Sales Revenue}}$$

Using this contribution margin, the sales volume for the desired profit can be ascertained. If requirement is certain profit, the following formula can ascertain the required sales volume.

$$\text{Required sales in unit for desired profit} = \frac{\text{Fixed cost + Desired profit}}{\text{Contribution margin per unit}}$$

If requirement is to compute the sales volume in rupees, following formula is applied:

$$\text{Required sales in Rs. for desired profit} = \frac{\text{Fixed cost} + \text{Desired profit}}{\text{CM Ratio}}$$

Again, if requirement is to find out the sales volume for certain level of profit after deducting tax amount, the formula can be expressed as

$$\text{Required sales in Rs. for desired profit} = \frac{\text{Fixed cost} + \dfrac{\text{Desired profit}}{1 - \text{tax}}}{\text{Contribution Margin Per Unit}}$$

Again, formula for the required sales in rupees for the desired profit after tax can expressed as

$$\text{Required sales in Rs. for desired profit} = \frac{\text{Fixed cost} + \dfrac{\text{Desired profit}}{1 - \text{tax}}}{\text{CM Ratio}}$$

3) Mathematical Formula Method

This is the most widely practiced approach to the breakeven point and cost volume profit analysis. The formula uses an algebraic equation to calculate the break even point.

Sales Volume = FC + VC + Profit

Where,

FC = Total Fixed Cost,

VC = Total Variable Cost

This equation can also be presented in the form of

SPPU X Q = FC + VCPU X Q + Profit

Where,

SPPU = Selling price per Unit

VCPU = Variable cost per unit

Q = Quantity (Sales Unit)

For the Break Even sales volume

BE sales volume = FC + VC + Q

$$\text{BEP (Units)} = \frac{\text{Fixed Cost}}{\text{CMPU}}$$

$$\text{BEP (Rs.)} = \frac{\text{Fixed Cost}}{\text{CM Ratio}}$$

4) Graphical Method

A break even chart is used to graphically depict the relationships among revenues, variable costs, fixed costs, and profit (or losses).Then no profit/no loss point (the break even point) is located at the point where the total cost and total revenue lines cross. Below this point, the firm incurs losses and above this point, the firm earns profit.

2.1.6 Ratio Analysis/Financial Statement Analysis

Simply Ratio means an expression of quantitative relationship between two numbers. This ratio gives more that quantitative information if they are properly interpreted. Ratio analysis is a widely used technique to evaluate the financial position and performance of a business. The term ration refers to the numerical or quantitative relation ship between two variables. It gives meaningful technique of measuring and evaluating financial performance of a business with relevant industry firm average or specific standards such as past ration of the same firm. It is a powerful tool of financial analysis. For the purpose of ratio analysis following two types of tools are used

a) Trend Analysis

It is comparison of present ratio with past and future ratio of the company

b) Comparison with Others

It is comparison of ratio of firm with those of similar firms or with industry average at the same point in time.

The objectives of ratios analysis are as follows:

1. The main objective of ratio analysis is to analyze the firm's relative strength and weakness.
2. It evaluates the financial condition and performance of the firm.
3. It paves way for useful interpretation of financial statements.
4. It helps in suggesting corrective measures for the betterment of the firm.

Advantages of the Ratio Analysis

The importance of ratio analysis is the fact that it presents facts on a comparative basis the following are some of the advantages of ration analysis:

1. Ratio analysis provides an integrated view of the overall profitability of the firm, which the management constantly concerned.
2. It enables to analyze the ability of the firm to meet its short term as well as long term obligations.
3. Helps in planning, forecasting the performance of the firm over a period of time. When the ratios are compared, it indicates success or failure in future.
4. Facilitates for inter-firm comparison,. A inter firm comparison would demonstrate the firms position vis-à-vis its competitors. If the results are at variance either with the industry standard or with those of the competitors, the firm can seek to identify the probable reasons or in that light, take remedial measures.
5. Facilitates trend analysis. The advantages of trend analysis of ratios, lies in the fact the analyst can know the direction of movement that is whether the movement is favorable, or unfavorable, when compared over the years.
6. Another dimension of the usefulness of ratio analysis is from the view point of the management. It imparts light on the degree of efficiency in the management and utilization of its assets. The various activity ratios measure this kind of operational efficiency.

Types of Financial Ratios

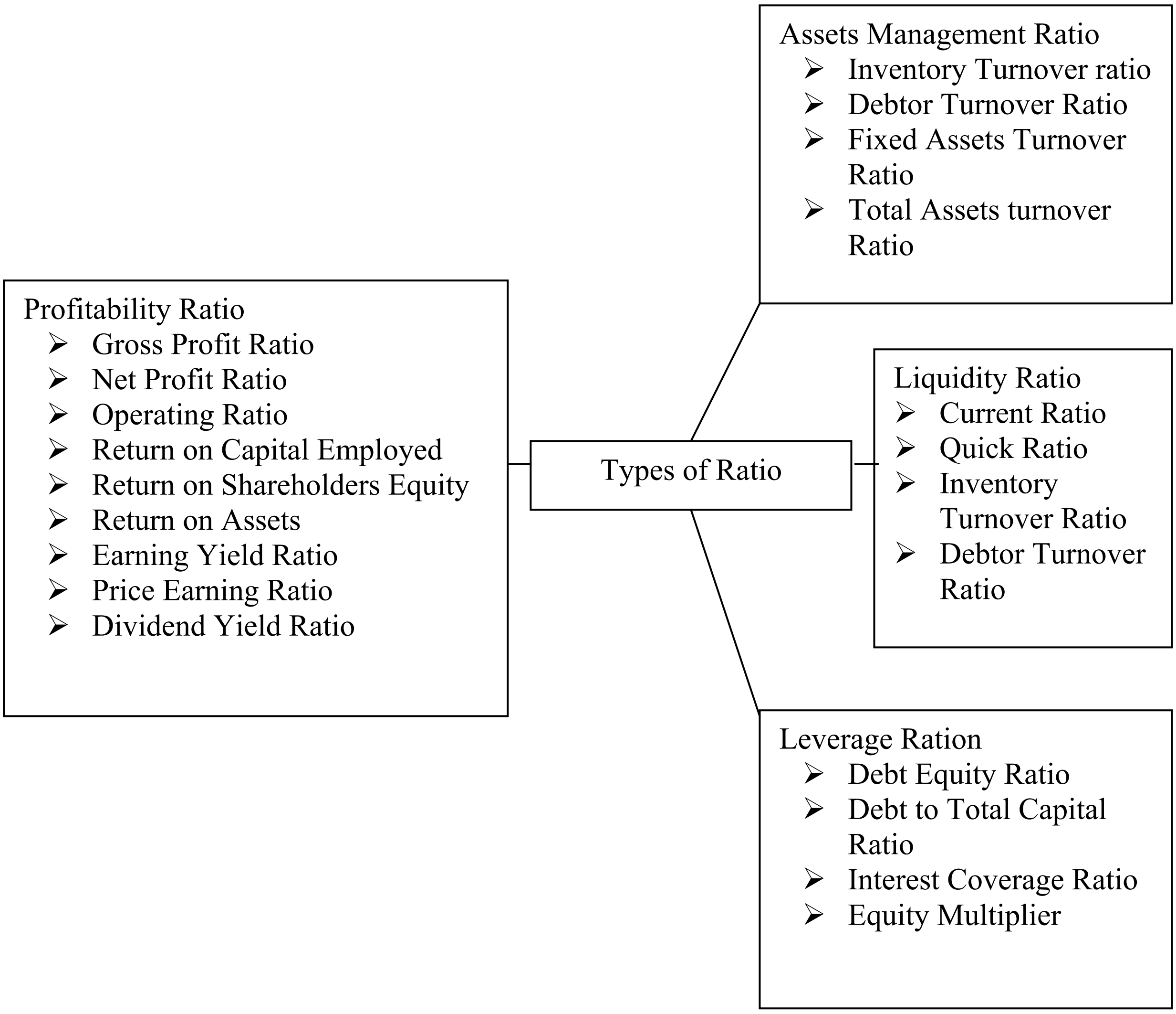
There are various types of ratios that are used by/for different parties for different purposes. It can be calculated from the information given in the financial statements.

Generally, ratios are calculated from the financial statements by the parties' such as creditors, investors, financial institutions and management of the firm to know their field of interest.

Several ratios calculated from the accounting data can be grouped into various classes according to financial activates or functions to be evaluated.

Figure No. 2.9

Types of Financial Ratios



Limitation of the Ratio Analysis

It is already mention that the ratio analysis is a widely used tool of financial analysis, however it suffers from various limitation. Some of them are as follow:

a) Difficulty in Comparison

One serious limitation of ratio analysis arises out of difficulty associated with their comparisons to draw inferences. This may be due to following.

i. Difference in the basis of inventory valuation.

ii. Different depreciation method

iii. Estimated working life of Assets, particularly of plan and equipments.

iv. Treatment of extraordinary of income and expenditure and so on.

b) Impact of Inflation

The second major limitation of the ratio analysis as a tool of financial analysis is associated with the price level change. This, in fact, is weakness of the traditional financial statements, which are based on historical cost.

c) Conceptual Diversity

The differences in the definitions of items in the balance and profit and loss statements make the interpretation of the ratios difficult.

d) Short-term Changes

The ratios calculated at a point of time are less informative and defective as it suffers from short-term-changes.

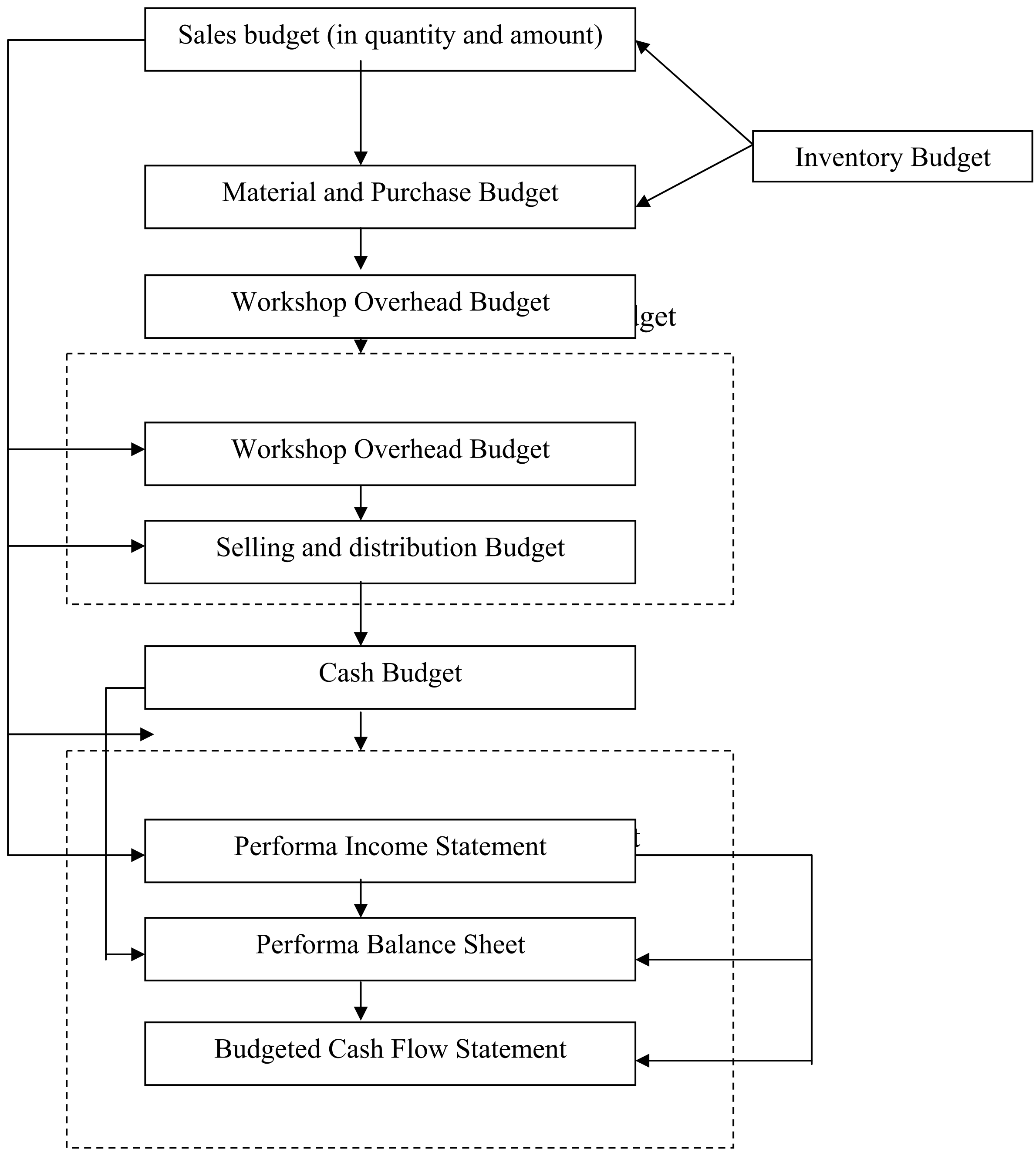
2.1.7 Master Budgeting

A budget is a numerically expressed course of action/target for definite period, which shows both revenues and expenditure. It may be prepared for an organization as a whole or for sub units. Budgeting shows management's desire to allocate scarcest resources and priority for activity of future. The master budget is compilation of all functional budgets. It includes from sales budgeted to operational budget and financial statement.

The main aim of budgeting is to present the future forecasting, numerically expressed in advance of commencing operation, stating what and how things are done. It covers a definite period of time, usually one year. Budgeting is an artistic work as well, in which numerical plans are presented in well structured. Budgets, basically forecasted financial statements-formal expressions of managerial plans that encompass all phases of operations including sales, purchasing manpower and financing. (Bajaracharya & et al, 2004:346)

Figure No. 2.10

Master Budgeting



A) Sales Budget

Sales budget is starting point. On the basis of this budget other budgets are developed. Sales budget is prepared both in units and amount. It is based on sales forecast, past sales trend, market situation and seasonal influences. These determinants should be analyzed properly to make realistic sales budget. Vehicle brand wise, segment wise, region wise budget is prepared on the basis of sales forecast. Sales forecasting can be done through past trend analysis. Zero based budgeting (ZBB), market survey, judgmental analysis etc.

B) Material and Purchase Budget

In case of trading business, merchandise budget is prepared instead of production budget. After preparation of sales budget, material and purchase budget is prepared on the basis of the sales forecast; Material purchase solely depends on sales budget. Increase in sale of a particular brand of car; indefinitely increase the sales of spares parts of and services for this particular brand. This budget shows detailed budget by product, department and time.

Purchase = Sales + Desired ending inventory level - Opening inventory level

Purchase policy should be set for effective management and control of material various things should be considered while purchasing are as follows:

Carrying cost

It includes cost of storage, rent lightening, store staffing, handling, auditing, recording etc.

Ordering Cost

It includes all clerical and administrative cost of purchasing, accenting, transporting and receiving.

Lead time

It is time period arrive to ordered material

Reorder level

It is the reordering level, calculated considering minimum stock level, consumption rate etc.

Reorder level = Minimum level + Consumption during lead time

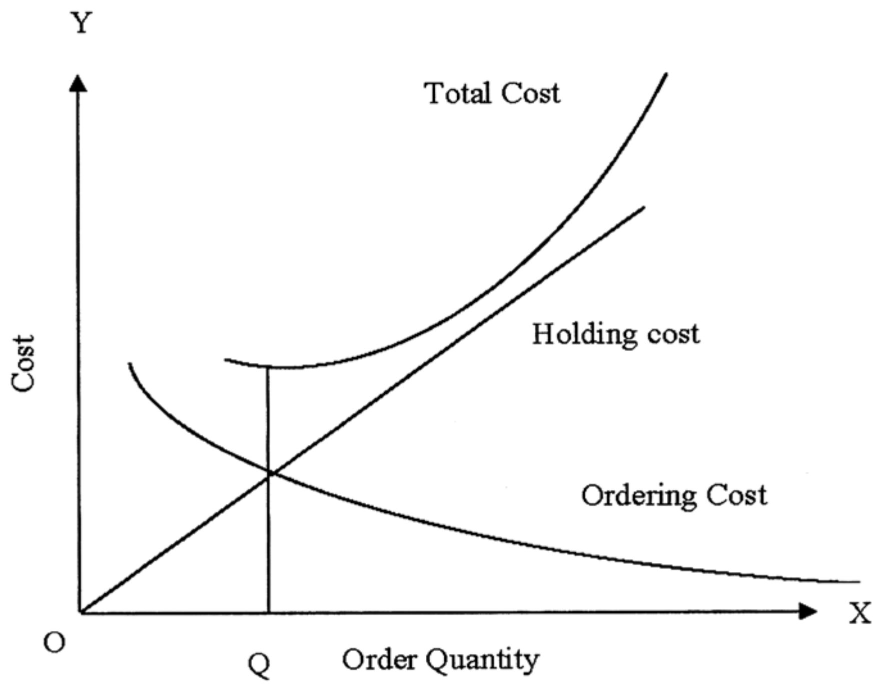
= Safety stock + (lead time X daily consumption)

i) Economic Order Quantity (EOQ)

How much to purchase, when to purchase is main problem in procurement. Economic order quantity can help on this regard. It equates cost of acquisition and cost of possession. In order words it minimizes the total inventory cost.

Figure No. 2.11

EOQ



$$EOQ = \sqrt{\frac{2AO}{C}}$$

Where,

A= Annual Requirement

O= Average cost of placing an order

C= Annual carrying cost of carrying one unit in inventory

Total Inventory Cost = Ordering Cost + Total carrying cost - Discount

= (O X A/Order size) + (C X Order size/2) - Discount

ii) Just In Time (JIT) System

It is new emerging concept, to avoid loss and perfect control. In this philosophy purchase is made just when need. It is demand pull, Japanese philosophy of purchasing in small lots with frequent deliveries. In this method purchase is entirely customer's demand driven. Thus it minimizes minimizing the wastage (like waste of waiting, transportation, stocks, motion, processing itself, making defective etc) and inventory holding cost. But perfect anticipation of need and reliable sources of supply is must. Reliable and geographically near supplier should able to supply on time with uniform quality. JIT, system works with perfect employee participation, industrial engineering, continuing, improvement, total quality control and small lot size.

Advantages of JIT system

- Reduces the amount of money tied up in inventories
- Reduces inventory holding cost
- Saves space as not required to maintain large inventories
- Makes possible to dictate quality problems timely
- Increases lab ours efficiency
- Minimizes the wastage

Limitation of JIT system

- Wrong estimation may lead the to misdirection
- Risk of not supplying on time
- Risk of not supplying quality materials
- Efficient inspection of supplies is needed

C) Workshop Overhead Budget

Vehicle dealer by nature of business have their own workshop of after sales support. This workshop does, servicing, maintenance of sold vehicles. In this operation, such workshop generates revenue incurring costs. The costs are lab our, electricity, rent, machine etc. Such overhead budget served as factory overhead of production. Workflow for the workshop should be forecasted and lab our/material should be planned properly for the coming period. Effective workshop management, affect, overall performance of the organization as a whole.

D) Operating Expenses Budget

This includes two budget, selling & Distribution expenses budget and administrative budget.

i) Selling and Distribution Expenses Budget

It includes cost related to selling, distribution and delivery of product to customer. Sales commission, carriage outward, advertising, insurance, executive salaries are the examples of such expenses. In vehicle dealer two kinds of such expenses can occur one for vehicle and another for spare parts. But mainly focus goes on vehicle. The vehicle dealer having wholesale business of spare parts to other dealer/retailer may gives dur consideration to spare parts marketing as well.

ii) Administrative Expenses Budget

Administrative expenditure are fixed to very large extend. Administrative department provides services sales, workshop and other. The expenses not included in workshop and sales are included under this category. Although such expenditures are not productive directly, it has crucial impact on organization's performance.

E) Cost of Good Sold Budget

It determines the cost of product sold. It helps in preparation of profit loss account and balance sheet. Evaluation of ending inventory and fixation cost of goods sold are main purpose of this budget.

F) Cash Budget

This budget shows, opening cash, cash inflow/outflow and ending balance. It helps in determining the anticipated cash receipt and payment and thus cash surplus and deficit. In case of deficit prompt arrangement can be done. In case of surplus, alternative use is preferred. Cash is critical aspect for each and every organization; it also measures the liquidity of organization. All the organization operates on money, not in profit so cash should be managed properly. Cash budget helps in effective cash management. It is summary of expected cash inflows/outflows over a projected period.

G) Performa Financial Statement

It is the final step of master budgeting. It portraits and summarize results to be achieved in future, Financial Statements generally include budgeted income, statement, balance sheet and cash flow statements.

i) Performa Income Statement

It shows magnitude of profit. It will serve as target of benchmark for the year. IN other words it shows how profitable is the business.

ii) Performa Balance Sheet

It gives clear picture of financial position of organization, with ending balance of all accounting titles. It shows glimpse of liability (from current liability to long terms debt) assets (from current assets to fix assets).

iii) Budgeted Cash Flow Statement

Cash flow shows inflow/out flow of cash under the head of operating activities, financial activities and investing activities. As accenting entries are done on the basis of accrual basis, to show true cash transaction cash flow statement is prepared. Cash flow comprises both short and long term perspective of cash. It further comprises both capital income/expenditure and revenue income/expenditure.

2.1.8 Flexible Budgeting

Budget can be categorized in static and flexible in nature. Master budget is static in nature and prepared for curtained activity level. It is estimated that the activity will no change significantly. But it's only coincident that there will not be significant deviation. In the uncertain future anything can happen, so different alternatives should be kept ready for these purposes. If there is significant change whole budget has to be modified and readjusted with great deal of effort, such draw backs are eliminated in flexible budget. Flexible budget is not based on only one level of activity rather it shows wide range of estimates. Within relevant range of activity. It helps in control of overheads setting bases for control.

Overheads (Y) = Fixed cost + variable costs (per activity) x activity
= FC + UVC x activity

In above formula after ascertaining the fix cost and unit variable cost (UVC), it can be calculated overheads for different activities. So it is automatically geared to changes in volume.

Desirability of Flexible budgeting

- It is desirable for such type of business which have unpredictable sales
- For new ventures/Launches prediction of volume of activities is very hard. So different alternatives can be prepared with flexible budget.
- Flexible budgeting is also desirable for organization having fluctuating activity levels
- For those organization which activates are entirely customers' demand driven.

  Flexible budgeting helps in marginal analysis by presenting details regarding output costs, sales and profit for different levels of activity. For overhead control, actual performance can be compared with budgeted one for actual activity level. It can not be done is static budget. Thus it is indispensable management accounting tools for cost reduction and control. It also gives information about usage of capacity (In terms of percentage) of both plant and human resources.

2.1.9 Responsibility Accounting

In today's complex and dynamic world, all organization can not be managed and controlled centrally. Decentralization is the must. Responsibility accounting is a form and process of decentralization. Whole organization is divided into smaller units: - division, segments, department, branches, product line etc. Every unit is managed and controlled by responsible person, manger. Authority and responsibility are delegated to the respective manager making him/her accountable. The manger should report the performance of the unit to the top management.

Responsibility accounting refers to the various concepts and tools used by managerial accountants to measure the performance of people and departments order to ensure the achievement of the goals set the top management. (Bajrachayra & et al, 2004:459)

Traditionally responsibility accounting refers only to financial performance (cost, revenue and profit) of sub units. But nowadays it measures overall performance of the unit. Process of responsibility accounting.

- Identifying the responsibility centre

  First of all, separable and identifiable units for operating purpose are identified as a responsibility centre:

- Delegation of authority and responsibility

  After identification of responsibility centre specific authority and responsibility are assigned to respective manager. It is the process of decentralization. Along with authority and responsibility, accountability is also transferred.

- Controllability of the object

  It defines that the manager is accountable for the cost which is controllable by him/her. He/she cannot make decision beyond his/her limit.

- Establishing performance evaluation criteria

  In this step, criteria to evaluate the performance are established to find whether performance is acceptable or not, the criteria are standard costing, budgetary control, profitability ratios, valuation measures etc.

- Selecting cost allocation bases.

  In this step, basses for allocation of joint cost corporate cost are identified. The allocation of the joint cost heavily influences the performance of the unit. So an appropriate and agreed based should be selected. The widely used methods are traditional costing method and activity based costing (ABC) method. Activity based costing (ABC) is an accurate method.

Finally responsibility accounting is method to measure the performance of a sub unit, with perfect use of decentralization. It has following contribution.

- Decentralization
- Segment evaluation
- Motivation
- Transfer pricing
- Drop of continue decision

2.1.10 Activity Based Costing (ABC)

Widely practiced method of allocating overhead cost is traditional costing method and activity based costing (ABC), Traditional costing relies on arbitrary cost allocation, and allocate indirect cost object using single overload rate. It tends to over cost high volume and under cost low volume products. Although its simple many drawbacks of tradition costing method, activity based costing has been evolved. It uses cause and effect cost allocation and multi bases. In the words of T. Lucy, "ABC seeks not only to allocate to product cost on a more realistic basis than simple production volume but also attempts to show relationship between overhead costs and activities that cause them."

Under the ABC system, the activity-cost pools are allocated to products on the basis of activity cost drivers. Activity cost drivers form the cost allocation base, which is chosen so that there is a cause and effect relationship between it and the costs, in the activity-cost pool. Therefore, identification of a cost allocation base or the cost driver for each activity is the most crucial and determining stage in the ABC system. A rate per unit is calculated for each cost driver for each activity used by the product. (Bajracharya & et al, 2004:107)

Activity	Example of cost	Cost allocate base	Cause and effect relationship that motivates the choice of allocation base
Design	Designs engineering salaries	Parts times cubic fetes	Complex products (more parts and larger size) require grater design resources.
Setups of machines	Setup labor and equipment cost	Setup-hours	Overhead costs of the setup activity increase as setup hours increase
Manufacturing operation	Plant and equipment, energy	Machine hours	Manufacturing operations, overhead costs support machines and hence increase with machine usage
Distribution	Shipping labor and equipment	Cubic feet	Distribution overhead costs increase with cubic feet of product shipped.
Administration	Division Executive salaries	Revenues	Weak, relationship between division executive salaries and revenues but justified by CAI on benefits received basis
Facility	Building and space costs	square feet	Facility costs increase with square feet of space

(Bajrachary & et al, 2004:107)

The process of Activity based costing (ABC) as follows:

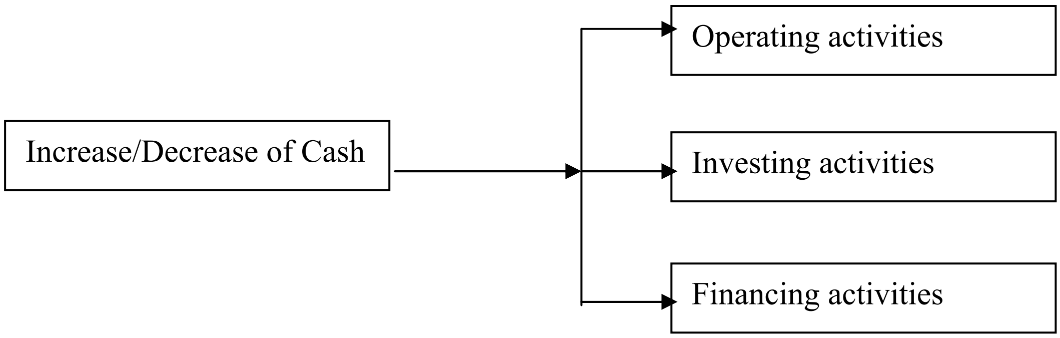
- Identification of major activities
- Determination of cost drivers
- Creation of cost centre/cost pool
- Trace the cost of activities to products

2.1.11 Cash Flow Statement Analysis

The cash flow statement is an important financial statement which show inflow and out flow of cash and cash equivalent. Cash equivalent generally includes highly liquid short term investments such as treasury bills, money market funds, commercial papers etc. Information about cash receipt and payment is also can be obtained from cash book, but cash flow statement provides more information to decision maker about increase and decrease of in operating, investing and financing activities.

Figure No. 2.12

Cash Flow Statement



Cash flow statement analysis reflects financial health of the organization like ability to give positive cash flow in future and ability to meet short term and long term obligation. In this statement accrual based accounting information is converted into cash based information and rearranged under the group of operating, investing activities and financing activities. Hence cash flow statement provides vivid description about the solvency and financial position of business.

Importance of cash flow statement

It provides following information:

- Ability to generate positive future cash flows
- Ability to meet financial obligation

- Assess the reasons for differences between income and cash receipt and payment
- Information about both cash and non cash aspects of investment and financial activities
- Correlation of income with cash flows
- Liquidity, solvency and financial flexibility

2.1.12 Zero Based Budgeting

Zero-Base Budgeting is a technique and tools of planning and decision-making. It reverses the working process of traditional budgeting. In traditional incremental budgeting, departmental managers need to justify only increases over the previous year budget. This means what has been already spent is automatically sanctioned. In case of ZBB, no reference is made to the previous level of expenditure. Every department function is reviewed comprehensively and all expenditures rather than only increases are approved. ZBB is a technique, by which the budget, request has to be justified in complete detail by each manager starting from the Zero-base. The Zero-base is indifferent to whether the total budget is increasing or decreasing. The manager have to starts from zero level justifying all costs in terms of cost and benefits.

Benefits of ZBB

1. Results in efficient allocation of resources as it is based on needs and benefits
2. Drives managers to find out cost effective ways to improve operations
3. Detects inflated budgets
4. Useful for service departments where the output is difficult to identify
5. Increases staff motivation by providing greater initiative and responsibility in decision-making
6. Increases communication and coordination within the organization
7. Identifies and eliminates wastage and obsolete operations.
8. Identifies opportunities for outsourcing.
9. Forces cost centers to identify their mission and their relationship to overall goals.

Drawbacks of ZBB

1. Difficult to define decision units and decision packages, as it is very time-consuming and exhaustive.
2. Forced to justify every detail related to expenditure. The R&D department is threatened whereas the production department benefits.
3. Necessary to train managers. ZBB should be clearly understood by managers at various levels otherwise they cannot be successfully implemented. Difficult to administer and communicate the budgeting because more managers are involved in the process.
4. In a large organization, the volume of forms may be so large that no one person could read it all. Compressing the information down to a usable size might remove critically important details.
5. Honesty of the managers must be reliable and uniform. Any manager that is prone to exaggeration might skew the results.

2.1.13 Lease or Buy

During business operation, such type of decision (Lease or buy) to be taken for example a dealer is in need of a plot of 10 annas, the dealer can either buy or lease the plot. Leasing is contract between owner (lesser) and a hirer (lessee) for the hiring of a specific asset. In such contract lessee gets only possession, ownership remains own owner himself. Maintenance of the assets should born by the either party as stated on the contract. In lease lessee has to pay rent. IN case of buying he has to pay bank interest (in case debt financing), have depreciation facilities and scrap value. These two financing alternatives are evaluated on basis of after tax cash flows with the help of time value of money. The alternative having least cost is selected. Other aspects such as availability of lease, financing, administrative burden also should be considered.

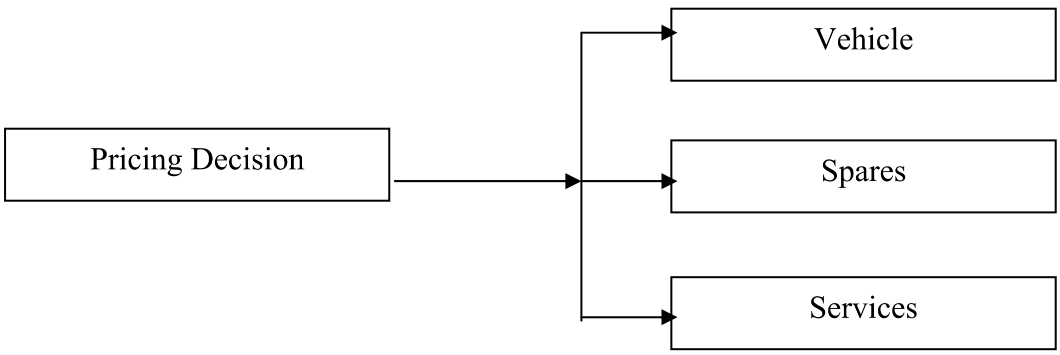
2.2 Pricing

Price is a crucial factor, which determines market success and in turn business success. Dealers have to set price of their vehicle, spare and services. Cost is expected to recover from sales revenue. As these organizations are profit-oriented so price should be above cost. Pricing should be one with perfect.

Information, as it has long term effect and costly to change if it is put into effect. Customer for vehicle may be of elite class, middle or lower class, government/diplomats business organization, businessmen etc. quality of product target customer affects pricing decision. Elite class wants high quality regardless of price where as middle class wants acceptable quality at affordable /reasonable price. Market survey should be done to have information about market characteristics.

Figure No. 13

Pricing Decision



Competitor analysis is also important in pricing decision. There may be many dealers targeting same customer to sell their product so vigilant watch on movement is necessary. IN Nepal there are almost 23 dealers in passenger car division (registered in NADA). The competition is very tough and pricing should be done with reference to price of competitors.

2.2.1 Methods of Pricing

a) Variable Cost Pricing

It considers only variable cost for pricing like cost of products (for dealers), direct material, direct labor etc. It is based on marginal costing. For merchandising organization, variable cost includes mainly cost of the product. And other administration cost. First of all total valuable cost is computed and some mark up percentage is added to arrive to price. Mark up percentage is set to cover the cost of all kind.

Selling price per unit= Variable cost price per unit mark up

b) Absorption Cost Pricing

This method considers both variable and fixed cost for pricing of the product, IN other words it incorporates both product and period cost. Total cost for the product is compiled then mark up is added to set price.

Sales price per unit= Cost price per unit + mark up

It is based on the concept that product cost includes all direct cost and allocation of fixed cost

c) Target Return/Return on Investment (ROI) pricing

Return on Investment (ROI) is ration of income to invested capital. IN order words it is required rate of return on investment to cover all opportunity cost. As there may be more than one alternative investment sector as an opportunity cost. The return that could be earned by investing same resources in the next alternatives is the minimum required rate of return on investment

$$\text{ROI} = \frac{\text{Income}}{\text{Capital Investment}}$$

d) Activity Based Costing (ABC)

It is method of allocating overhead to products with application of relationship between overhead costs and activities that cause them. It assumes that overhead is inflamed by diversity and complexity of products rather than volume of output. Mostly organizations having multiple products use this method. Costs are accumulated by activity centers in this method. First, all major activities are identified then cost driver for each major activity is assign. Cost centre/cost pool for each major activity is created then cost of activities is traced to products.

2.3 Transfer Pricing

In the words of Horngren, Foster and Datar, a transfer price is price that a subunit of an organization charges for products or services supplied to another subunit of the same organization. The transfer price creates revenue for the selling subunit and a purchase cost for buying subunit, affecting operating income numbers for both subunits. The operating income can be used to evaluate the performance of each subunit and to motivate managers. Likewise, in the words of Kaplan and Atkinson transfer pricing is the principal tool of financial control in decentralized organization. So it is basis of segment reporting.

In organization there may be more than one department if one department transfers goods/services to other and charge for the products/services it is called transfer pricing.

Transfer price affects performance and ultimately profitability of both transferring and receiving department. Transfer price is revenue for transferor and cost for transferee.

2.3.1 Methods of Transfer Pricing

Transfer pricing is set to meet objectives of organization as a whole considering goal congruence. Like wise motivation of department manager is also important.

a) General Transfer Pricing

Transfer Price =	Additional Outlay Cost Per Unit Incurred because goods are transferred	+	Opportunity cost per unit to the organization because of the transfer

This transfer price is based on opportunity cost. Opportunity cost (if the goods/services sold else where) is added to variable cost to determine transfer price.

b) Cost based Transfer pricing

On cost based transfer pricing goods/services charged on the basis cost of the product/services. Price can be charged either considering variable cost only or considering full cost. In variable cost pricing only variable cost considered and in absorption both variable and fixed costs are considered

c) Market Price Based

In this method price is set equal to market price for the same goods/services. One department treats other department as external customer under this pricing method.

d) Negotiation

In this method department managers of department bargain/discuss to reach a reasonable price within best interest of organization as whole. Transferring department tries to set price high as market price but receiving department wants to lower the price. Finally a reasonable price is set.

e) Target Return

In this method pricing is set as per required rate return on investment (ROI). To set price the department determine its required rate of return and set transfer price.

2.4 Review of Previous Research on Management Accounting Practice

Many researches have been conducted on management accounting practice in Nepalese context, especially in profit planning and controlling, financial statement analysis, cost volume profit analysis etc. Few researches have been made in application of management accounting tools in Nepalese context. These researches have shown that management accounting is still a new thing and in developing stage in Nepal. Decision is taken in intuition of strategic manger rather than applying management accounting tools. Here, review of previous of previous research conducted on management accounting practice has been presented.

Mr. Sagar Sharma (2002): Mr. Sharma conducted a research work entitled. Management Accounting Practices in Listed Company of Nepal." ON the basis of primary data, he has focused on management accounting practices bye these listed companies. Major finding of his research are:

- Budgeting, cash flow, ratio analysis are widely used management accounting tools.
- Cost segregation, break even analysis, standard costing, ling term budget are slightly in use. Activity based costing, responsibility accounting are not in use.

- For capital budgeting payback period and Net preset value are widely used
- 70% and more practice master budgeting among them 87% used actual expenses to prepare the budget.
- Mostly Profit and loss is used to measure overall performance of company
- Cost base pricing is used to price the products/services
- 100% company practice past trend to forecast cost and revenue.
- Management account tools are not practiced mainly lack of information and cost factor.

Mr. Krishna Bahadur Karki (2007): Mr. Karki has conducted research entitled, "Management Accounting Practice in Joint Venture Banks of Nepal." Basing on primary data he has focused on management accounting tools used in these banks. The major findings of his research are:

- Capital budgeting, cash flow and annual budget are widely used in Joint venture (JV) banks.
- Activity based costing (ABC), standard costing, long term budgeting and zero based budgeting are no in use.
- For capital budgeting profitability index (PI) and net present value are widely used. NO banks are using modified internal rate of return (MIRR).
- Past actual budgets are used as base for preparation of budgeting.
- All most all JV banks practice short term budgeting. They use profit and loss account, ratio analysis and cash flow statement to evaluate overall performance of bank.

Mr. Narayan Prased Acharya (2006): Mr. Acharya has conducted research entitled, "Management Accounting Practice in Nepalese Public Enterprises.": He has focused on management accounting practice basing on primary data. Major finding of his research are:

- Annual budgeting, cash flow statement, responsibility accounting are widely practiced in PEs.
- Break even analysis, capital budgeting, financial statement analysis, flexible budgeting are only slightly used in these enterprises.
- For preparation of budget they based on actual past expenses.
- Role of government is prominent in pricing of product/services
- Use of transfer pricing is not in use in these PEs.
- They use first in first out (FIFO) for pricing of inventory issues.
- Profit and loss account is use for evaluation of overall performance of the enterprises.
- The decision of these organizations is done under the political influence rather than on the basis of management accounting.

Mr. Ailendra Kumar K.C. (2006): Mr. K.C. has conducted research entitled. "Management Accounting Practice in Nepalese Public Enterprises." He has focused on management accounting practice basing on primary data. Major finding of his research are:

- Annual budgeting, cash flow statement, capital budgeting, ratio analysis are widely used in these PEs.
- Only 5% use Activity based costing (ABC) and 17% use responsibility accounting.
- For capital budgeting, 72% sue net present value (NPV) and 55% use payback period (PBP).
- Zero based budgeting (ZBB), activity based budgeting (ABB) are not in practice, rather they use past expenses as base for preparation of budget. And mostly short term budgeting are used. NO PEs are practicing progression analysis.
- Profit and loss are used to evaluate the overall performance of organization as a whole.
- Transfer pricing are rarely practiced.

2.5 Research Gap

This research differs with the previous not only in the time frame, but the in the nature of organization as well, Mr. Sharma, Mr. Karki, Mr. Acharya have selected the organization, Listed companies, joint venture banks and public enterprises. Management accounting practices required in vehicle dealer business is quite unique. So conclusion drawn under the previous research may or may not be applicable to vehicle dealers due to different nature of business. Vehicle dealing business is different in size of business, differ in product and service they deal interims of competition and after sale service.

CHAPTER III

Research Methodology

3.1 Research Design

The research attempt to analyze the management accounting practiced in Nepalese Automobile Dealers. This study focused on major accounting tools practiced by automobile dealers. Nature, comparison and relationship between Indian automobile dealers and other automobile dealers regarding practice of management accounting practice are analyzed. Hence descriptive and comparative analysis was used. Trend analysis, T-test and Chi-square test were used for testing the hypothesis.

3.2 Source of Data

Data was collected through questionnaire, short interview, opinion and discussion. However secondary data was used wherever necessary. Secondary data was collected on automobile registration, import statistics, road statistics etc

3.3 Population and Sample

The population includes the entire automobile dealer existing in Nepal. There are almost 41 automobile dealers registered in Nepal Automobile Dealers' Association (NADA). Out of them 23 dealers are dealing passenger car (PC-car/jeep/v an) automobiles. The small car dealers was the targeted sample as this study entirely focused on this category. However same automobile dealers are dealing both commercial and passenger automobile such dealers are also taken into consideration. Name list of these automobile dealers along with model are as follows.

Passenger Automobile Dealers Registered in NADA

1. Agni Incorporated Pvt. Ltd.	Mahindra
2. AM International Pvt. Ltd	Chinese Automobile s
3. Amatya Enterprises Pvt. Ltd	Mitsubishi
4. ArunInter continental Traders	Maruti, Suzuki

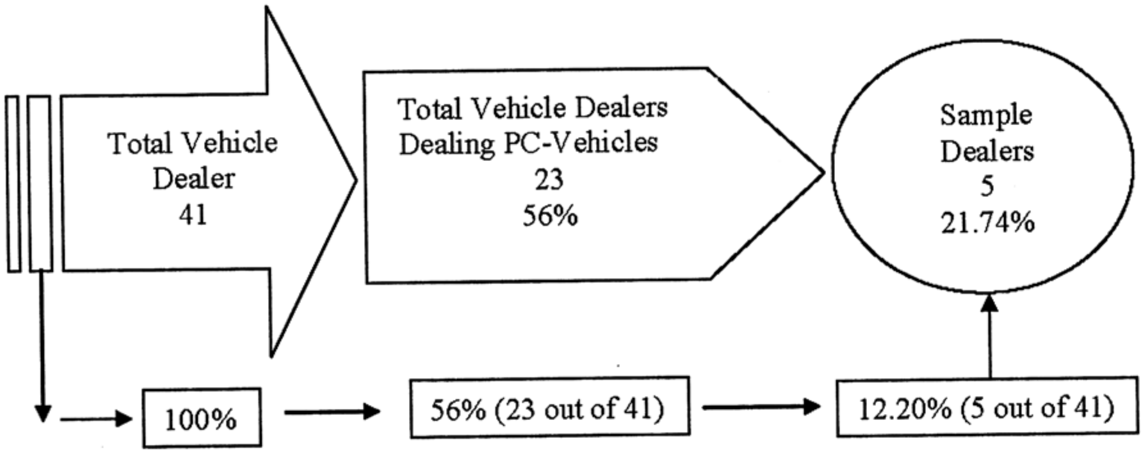
5. Avco International Pvt. Ltd Hyundai
6. Bhajuratn a Agency Pvt. Ltd Fiat
7. Bhudeo Trading Proton
8. Continental Associate s Pvt. Ltd Kia
9. Continental Trad. Ent. P v t. Ltd. Kia
10. Deepak Gautam & Co. Mercedes-Benz
11. Dugar Autoclinic Pvt. L t d Nissan
12. Dugar Brothers & Sons Nissan, Ford, Volkswagen
13. Euro Gears Pvt. Ltd Peugeot, Land Rover
14. Gurans Engineers Pvt. L t d Nissan
15. Nakasu Motors Pvt. Ltd Mitsubishi
16. Nem link Int. Traders Pvt. Ltd Perodua
17. Padm a Shree Pvt. Ltd Mazda
18. Saakha & C o . Pvt. Ltd Chinese Automobiles
19. Shree Himlayan Enterprises Pvt. Ltd Suzuki
20. Sipradi Trading Pvt. Ltd Tata
21. Syakar Co. Ltd Honda
22. United Traders Syndicate Pvt. Ltd Toyota
23. Vijay Motors Pvt. Ltd Opel., Subaru

Out of these dealers five were selected as sample. The sample was selected on non probability sampling basis.

For the sampling purposive/judgmental sampling was used.

Figure No. 3.1

Sampling



The figure shows that out 41 automobile dealers 23 (56%) are dealing PC automobiles. Out of 23automobile dealers 5 (21. 74%) were selected as sample automobile dealer, which was 12. 20% in total automobile dealers.

The table shows the line of business (LOB) of the selected dealers.

Selected Dealers

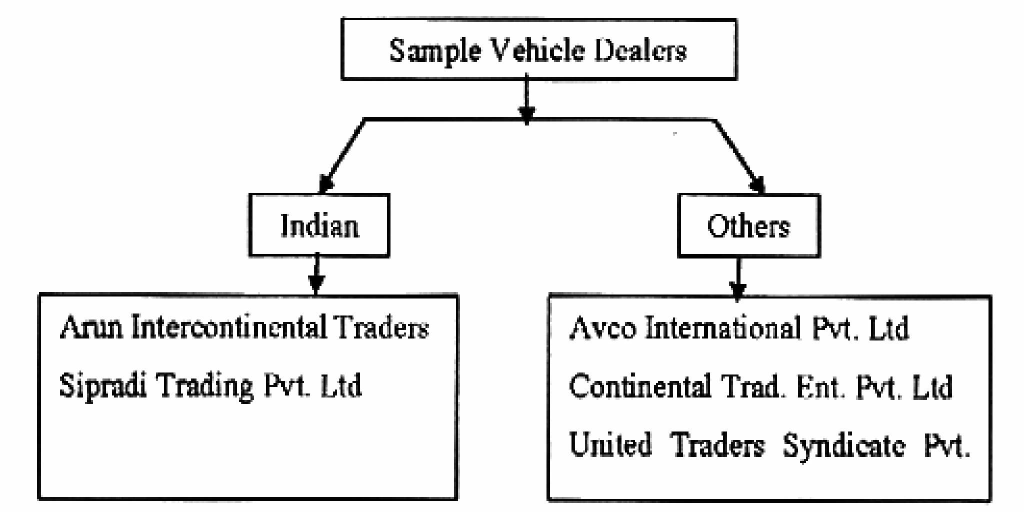
Arun Intercontinental Traders Jhamsikhel, Lalitpur Line of Business: Distributorship of Suzuk & Maruti Automobiles	Avco International Pvt. Ltd Nag Pokhari, Naxal, Kathmandu Line of Business: Automobiles, Passenger Car / Jeep/Van, Equipments, Spare Parts, Accessories, Tools & Special Equipment. Authorized importer of Hyundai Motor Co., S. Korea, Hyundai Motor India Ltd., VHF/HF Communication Equipment, Yingang Motorcycles, Electric Scooters for Teenagers.
Continental Trading Enterprises Pvt Ltd Tinkune, Kathmandu Authorized distributor of: Kia Motors Corporation, South Korea, Komatsu Limited, Japan Line Of Business: Passenger & Commercial Automobiles, Spare Parts, Accessories, Heavy Equipment, etc Dealers : Anup Trading Ent. Pvt. Ltd, Pokhara Sapana Automobiles Traders, Butwal Auto Palace Pvt. Ltd. Biratnagar	Sipradi Trading Pvt. Ltd., Naya Naikap, Kathmandu Line of Business: Sole Authorized Dealer of TATA Automobiles & Spare Parts for Nepal. Branch & Service Centre: 1. Thapathali 2. Bahuwari, Gandak, Birgunj 3. In Front of Stadium, Ward No.-10, Pokhara 4. Milan Chowk, Butwal 5. Karkado, Surkhet Road, Nepalgunj 6. Birtam ode, Jhapa 7. Attariya, Kailali 8. Narayanghat, Chitwan 9. Hetauda, Makawanpur
United Traders Syndicate Pvt. Ltd Voith Complex, Tinkune Sinamangal, Kathmandu Line Of Business: Sole Distributors of Toyota Automobiles for the Kingdom of Nepal. Toyota Spare Parts & Accessories, Lubricants ELF & TOTAL	

(Source: w ww.nada.org.np)

The automobile dealers were divided into two category viz. Indian and Others

Figure No. 3.2

Sample Vehicle Dealers



3.4 Questionnaire and Data Collecting Procedure

The data was collected through questionnaire, interview and discussion directly from concern organization. Objective questions relating to automobile dealer business containing general accounting management accounting practice were designed. The questionnaires were of “tick-mark” and multiple choices. They were given an option of other where they can express their practice if those were different from listed in the questionnaire with their views and with free expression. First two spare questions were about type of ownership and category of product. Then other, eighteen questions are about management accounting practice which were entirely multiple choices. Last two questions were about difficulties and potential benefits of management accounting practice in automobile dealers. These questions were open type. The questionnaire provided to concerned organization, fro m the management the questionnaire was filled up, wherever necessary short interview and discussion were taken as well. They were assured that the information would be kept confidential, and used for academic purpose only, would not be printed in any form.

3.5 Data Processing Procedure

The data collected were categorized in suitable comparative tabular form. The data were processed with simple arithmetic mean and percentage basis. Bar charts, set charts and flow charts were used to make the presentation lucid. For testing hypothesis students' t-test and chi-square tests are used.

3.6 Major Management Accounting Tools

The management tools discussed in this research is as follows

1. Capital Budgeting
2. Cost Segregation into Fixed and Variable
3. Tax Effect Analysis
4. Standard Costing
5. Break Even Analysis (B EP)/Cost-Volume-Profit (CVP) Analysis
6. Ratio Analysis/Financial Statement Analysis
7. Master Budgeting
8. Flexible Budgeting
9. Responsibility Accounting
10. Activity Based Costing (ABC)
11. Cash Flow Statement
12. Zero Based Budgeting (ZBB)
13. Lease or Buy

3.7 Statistical Procedure

For the analysis of the data simple mean, percentage and trend analysis were used. Trend analysis was used to find out growth rate and forecast automobile registration. For testing the hypothesis, Managerial accounting tools used by each dealer were totaled individually. But the relative importance of the tools was not considered. Then student's t- test was used for testing the hypothesis. Similarly similarities/differences in practiced of management accounting in between Indian automobile dealers and other automobile dealers were tested with chi-square test.

3.8 Hypothesis

Thirteen Management Accounting tools are used as parameters. These are1) Capital budgeting 2) Cost segregation 3) Tax effect 4) Standard costing5) Break Even Analysis (BEP) 6) Financial Statement analysis 7) Master budgeting and 8) Flexible budgeting 9) Responsibility Accounting 10) Activity Based Costing (ABC) 11) Cash Flow Statement 12) Zero Based Budgeting (ZBB) 13) Lease or Buy. The sample dealers were asked whether they were practicing these tools or not, then they were valuated irrespective of their importance.

Null hypothesis (Ho):- the dealers are practicing more than average number management Accounting Tools as their management practice.

Alternative Hypothesis (H_1):-The dealers are practicing less than average number of accounting tools.

For the testing of other hypothesis, the sample dealers were groped into Indian and others categories.

Hypothesis for testing of Break Even Point (BEP) Analysis

Null hypothesis (Ho):- there is no significant difference between Indian and others vehicle dealers in practice of Break Even Point (BEP) Analysis

Alternative hypothesis (H1):- There is significant difference between Indian and other vehicle dealers in practice of Break Even Point (BEP) Analysis

Hypothesis for testing of Activity Based Costing (ABC)

Null hypothesis (Ho):- There is no significant difference between Indian and others vehicle dealers in practice of Activity Based Costing (ABC)

Alternative hypothesis (H1):- There is significant difference between Indian and other vehicle dealers in practice of Activity Based Costing (ABC).

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

Every business needs strategic move to survive in competitive market. Proper planning, controlling and effective decision m a king play vital role to lead the organization towards achievement of objectives. Management accounting is the means to effective planning, controlling and decision making. Management accounting mainly focuses on internal users. Therefore, the focus of the study is to explore the management accounting tools used by automobile dealers. To cope with the complicated, dynamic and competitive environment, management accounting tools are only means to survive to automobile dealers. Globalization has added both threats and opportunities. Capable organization will reap the opportunities and it will pose threats to weak organization.

There are 41 automobile dealers registered in NADA. Out of which 23 (56. 10%) dealers are dealing passenger car (PC) automobiles. As the study is focused on PC automobiles dealers, out of these 23 automobile dealers, only 5 (21.74%) dealers were selected using stratified judgmental sampling.

The research was survey type. Questionnaire was scheduled consisting of eighteen tick mark and two open end questions. Questionnaires were distributed directly to the head office of the dealers. Authentic persons like finance manager, accounts manager, auditor, account officers etc were asked to fill up the questionnaire. All these five dealers responded to the questionnaires. Short table interviews/ opinions were also taken wherever necessary. Thus primary data were used.

The raw data have been processed, tabulated and analyzed. Percentage analysis, trend analysis, student's t- test and chi-square have been used for analyzing the data.

4.1. Automobile Registration

The annual automobile registration reflects the trend of economic development of the country. So it serves as the economic indicator. Increasing trend is favorable for the economy. Development of financial institution, government policy, development of road etc affects the automobile registration. As per micro economic indicator of Nepal 2007 there are almost 18 commercial banks (including agricultural development bank), 72 finance companies and 21 insurance companies.

4.1.1 Annual Automobile Registration

Table No. 4.1
Annual Automobile Registration upto the Fiscal Year 2064/65

Fiscal Year	Car/Jeep/ Van	Bus	Minibus	Truck/ Tanker	Tempo	Motor Cycle	Tractor	Micro Bus	Others	Totals
Till 048/49	23050	2489	1464	7969	2359	32776	6169	0	102	76378
049/50	1893	458	226	800	856	4954	788	0	1549	11524
050/51	2115	413	148	1524	1207	8154	548	0	358	14467
051/52	2266	606	185	1491	62	7608	262	0	381	12861
052/053	3049	1168	77	1740	154	8653	1396	0	372	16609
053/54	3043	850	83	1629	241	9401	1814	0	353	17414
054/55	5261	486	82	1151	117	13855	2183	0	58	23193
055/56	2993	608	175	907	185	12633	1257	0	352	19110
056/57	4139	899	130	1291	344	12306	1265	0	51	20425
057/58	2507	872	19	978	388	17090	2248	0	37	24139
058/59	3647	494	122	829	789	19755	2542	0	102	28280
059/60	5152	1203	250	1271	232	29291	3519	0	77	40995
060/61	4374	868	475	1798	248	38522	3189	0	86	49560
061/62	2906	432	298	1212	17	29040	2485	532	624	37546
062/63	7079	732	237	1477	16	36547	2191	884	536	49699
063/64	4781	753	285	1385	48	41093	1374	1584	228	51531
064/65	5114	1528	663	2263	60	55410	635	2666	36	68375
Grand Total	83369	14859	4919	29715	7323	377452	33865	5666	5302	562106

Source: Department of Transport Management, Government of Nepal

The changing need for automobile has led tremendous inflow of automobile to the country from different countries. Till the fiscal year 048/049, the total numbers of automobile registered was 76,378, by the fiscal year 064/065 it was

5, 62,106. The increase was nearly seven times. That means in last seventeen years the total automobile increased by seven times. Facilities of financing, has broaden the market by providing accessed to middle class as well. By the end of the fiscal year 2064/65 there were 83,369 Car/Jeep/Van, 14,859 Bus, 4,919 Minibus, 29,715 Truck/tanker, 7,323 Tempo, 3,77,452 Motorcycle, 33,865 Tractor, 1,766 Micro bus and 5,302 Others automobile. From the fiscal year 060/61 micro-bus also has been started to registered and reached to total no. of 1,766 by the end of the fiscal year 2064/65. People having money are investing on automobiles, as a good investment sector. A number of transport (Yatayat) Company/Organization /business association are the result of this. The operation of transport companies have led to increase in registration of automobiles in country.

Table No. 4.2

Percentage Change of Annual Registration of Total Vehicles Vs. Car Jeep and Van

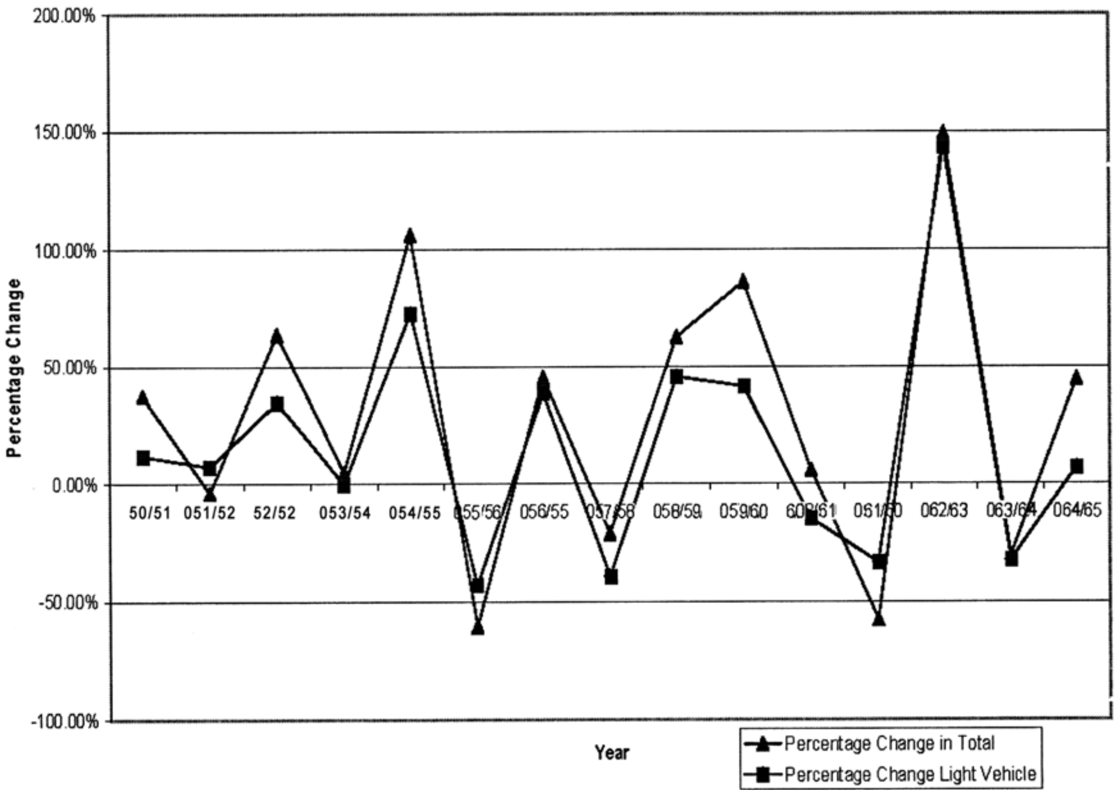
Fiscal Year	Total	Percentage Change	Car, Jeep and Van	Percentage Change
Till 048/49	76378		23050	
049/50	11524		1893	
050/51	14467	25.54	2115	11.73
051/52	12861	-11.10	2266	7.14
052/053	16609	29.14	3049	34.55
053/54	17414	4.85	3043	-0.20
054/55	23193	33.19	5261	72.89
055/56	19110	-17.49	2993	-43.11
056/57	20425	6.88	4139	38.29
057/58	24139	18.18	2507	-39.43
058/59	28280	17.15	3647	45.47
059/60	40995	44.96	5152	41.27
060/61	49560	20.89	4374	-15.10
061/62	37546	-24.24	2906	-33.56
062/63	49699	32.37	7079	143.60
063/64	51531	3.69	4781	-32.46
064/65	68375	32.69	5114	6.97
Grand Total	562106		83369	

Source: Department of Transport Management, Government of Nepal

In the fiscal year 050/051 registration of total automobile increased by 25.54% in the next fiscal year it decreased by 11.10 %. Again in the fiscal year 052/53 it showed larger increment of 29.14%. 4.85% was the increment for the year 052/53. In the fiscal year 053/54 it increased by huge increment of 33.19%, which was followed by larger decrease of 17.6%, in subsequent year. Again in the fiscal year 055/56 it increased by 6. 88%. Then it increased by 18.18%, 17.15%, and 44.96% in the following y ears gradually. The growth of 44.96% of the fiscal year 058/59 w a s not sustained which was followed by 20.89% growth and 24.11 negative growth due to poor economic condition of the country. Again in the fiscal years 061/62 and 062/63 it increased only by 5.55% and 2.10% but in the fiscal year 064/65 it increased by 37.61%.

Figure No. 4.1

Percentage Change in Annual Automobile Registration



Source: Table No. 4.2

The figure shows that the percentage change in registration of car, jeep and van has also the same direction, with slightly changed magnitude. In the last seventeen year s the total registration of car, jeep and van increased from 23,050 to 83,369. It increased by 3. 6 times.

In the fiscal year 050/51, 051/52 and 052/53 it increased by 11.73%, 07.14%, and 34.55% respectively. But in the fiscal year it decreased by 00.20%. It increased by 72.89% in the fiscal year 054/55. In the fiscal year, 055/56, 056/57, 057/58, 058/59, 059/60, 061/62 and 062/63 the registration fluctuated by -43. 11%, 38.29%, -39. 43%, 45.47%, 41.27%, -15.10% and -33.56 % respectively. Even in the unfavorable condition of the fiscal year 063/64 it increased with highest percentage of 143.60%, due to financing facilities and other facilities.

Again it decreased by -32.46% and increased by 6.97% in the fiscal years 2063/064 and 064/65.

Table No. 4.3

Trend Analysis of Annual Registration of Total Automobile

Fiscal Year(X)	Total Vehicle Registration (Y)	x = 2(X-2055.5)	x^2	xy	y=30358+1369.58x
049/50	11524	-15	225	-172860	9814.3
050/51	14467	-13	169	-188071	12553.46
051/52	12861	-11	121	-141471	15292.62
052/053	16609	-9	81	-149481	18031.78
053/54	17414	-7	49	-121898	20770.94
054/55	23193	-5	25	-115965	23510.1
055/56	19110	-3	9	-57330	26249.26
056/57	20425	-1	1	-20425	28988.42
057/58	24139	1	1	24139	31727.58
058/59	28280	3	9	84840	34466.74
059/60	40995	5	25	204975	37205.9
060/61	49560	7	49	346920	39945.06
061/62	37546	9	81	337914	42684.22
062/63	49699	11	121	546689	45423.38
063/64	51531	13	169	669903	48162.54
064/65	68375	15	225	1025625	50901.7
Grand Total	485728	$\sum x = 0$	$\sum x^2 = 1360$	$\sum xy = 2273504$	

Let the linear equation describing the trend be: y = a+ bx

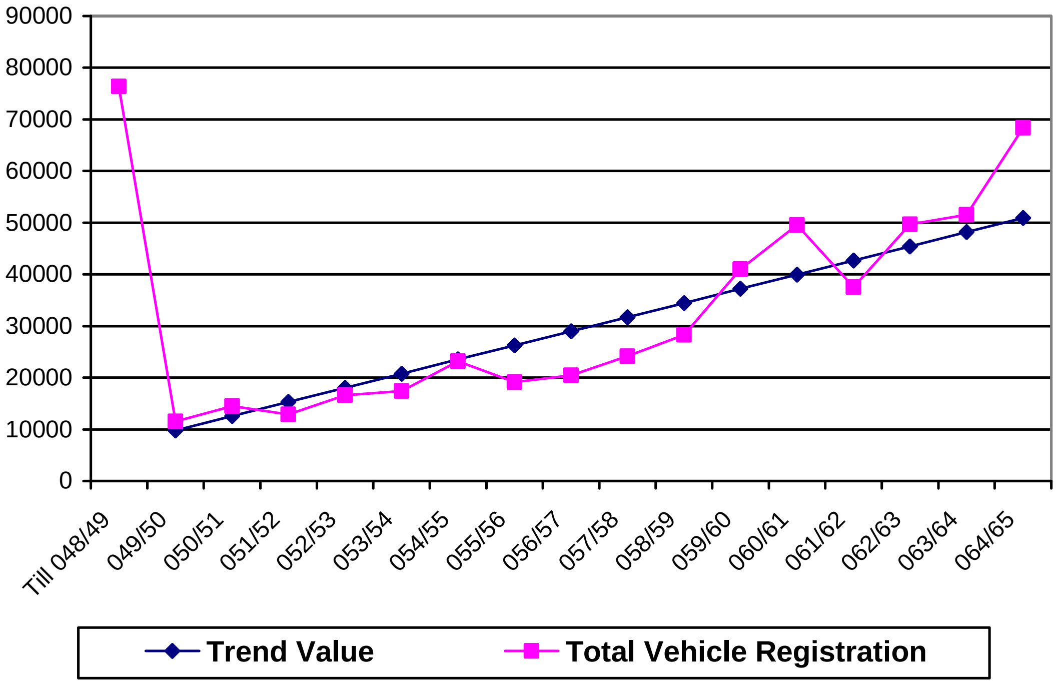
Since $\sum x = 0$

$$a = \frac{\Sigma y}{n} = \frac{485728}{16} = 30358$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{2273504}{1360} = 1369.58$$

Figure No. 4.2

Trend Line for Total Vehicle Registration



The figure shows trend line for total automobile registration. The total automobile registration has been in fluctuating trend. Although, from trend analysis, it can be concluded that the growth rate was positive and increasing with growth rate of 1,347 numbers per year. For the fiscal year 2063/64,

$$x = 2(X\text{-}2055.5) = 2(2064\text{-}2055.5) = 17$$

$$y = a + bx$$

$$y=28262+1347.12x$$

$$= 28262+1347.12X17$$

$$= 51163.04$$

Thus it can be concluded that from trend analysis the total automobile registration for the fiscal year 2064/65 will be 51,163 numbers

Table No. 4.4

Trend Analysis of Annual Registration of Car/Jeep/Van

Fiscal Year (X)	Car, Jeep, Van, Registration (Y)	x = 2(X-2055.5)	x^2	xy	y=3769.94+105.68x
049/50	1893	-15	225	-28395	2184.74
050/51	2115	-13	169	-27495	2396.1
051/52	2266	-11	121	-24926	2607.46
052/053	3049	-9	81	-27441	2818.82
053/54	3043	-7	49	-21301	3030.18
054/55	5261	-5	25	-26305	3241.54
055/56	2993	-3	9	-8979	3452.9
056/57	4139	-1	1	-4139	3664.26
057/58	2507	1	1	2507	3875.62
058/59	3647	3	9	10941	4086.98
059/60	5152	5	25	25760	4298.34
060/61	4374	7	49	30618	4509.7
061/62	2906	9	81	26154	4721.06
062/63	7079	11	121	77869	4932.42
063/64	4781	13	169	62153	5143.78
064/65	5114	15	225	76710	5355.14
Grand Total	83369	$\sum x = 0$	$\sum x^2 = 1360$	$\sum xy =$ 1473731	

Let the liner equation describing the trend by: y = a + bx

Since $\sum x = 0$

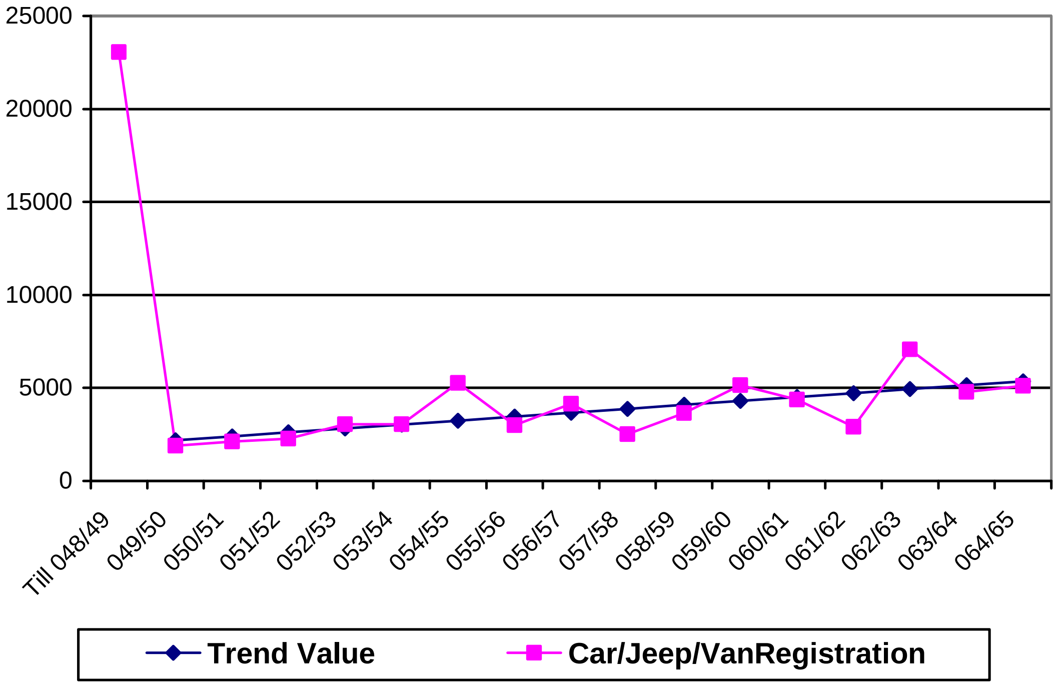
$$a = \frac{\Sigma y}{n} = \frac{60319}{16} = 3769.94$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{143731}{1360} = 105.68$$

Thus it can be concluded that from trend analysis the registration of Car/Jeep/Van f o r the fiscal year 2064/65 will be 5,56 7 numbers.

Figure No. 4.3

Trend Value For Car/Jeep/Van Registration



This figure shows Trend Line for Car/jeep/v an. The registration of these automobiles has been in fluctuating trend. Although, from trend analysis, it can be concluded that the growth rate was positive and increasing with growth rate of 106 numbers per y ear.

4.1.2 Zone-wise Automobile Registration up to the Fiscal Year 2062/63

High Population density, different facilities and centralized business have led to m o re automobile registration in the Bagmati Zone. Almost 56.9% automobiles were registered in the Bagmati Zone among them nearly 90% were for valley ring road. Thus automobile density in Kathmandu valley is increasing. Till 2065 Ashad in total 2, 99,642 automobiles registered only in Bagmati Zone. Among them 58,837 were car/jeep and van.

Table No. 4.5

Zone wise Automobile Registration Figure Till 2065 Ashad (July 15, 2008)

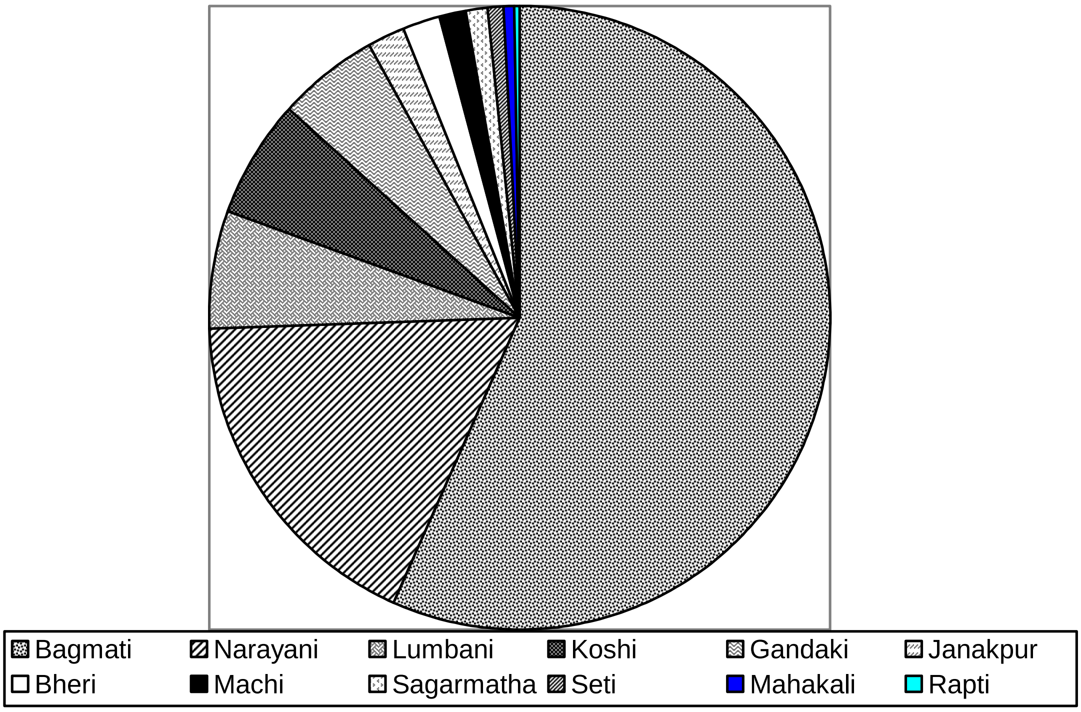
Zone	Car/Jeep/ Van	Bus	Minibus	Truck/ Tanker	Tempo	Motor Cycle	Tractor	Micro Bus	Others	Totals
Bagmati	58857	3213	2793	8360	5123	213712	1677	1482	4445	299642
Narayani	9608	7771	932	14088	2181	47155	13150	28	277	94290
Lumbani	3799	502	308	2145	335	20467	3455	4	159	31174
Koshi	2709	1209	191	1566	258	20739	6319	1	63	33055
Gandaki	5077	768	506	1238	11	18729	1046	200	96	27671
Janakpur	626	219	60	492	40	7104	2203	0	73	10817
Bheri	803	248	38	518	133	6528	1718	22	46	10054
Machi	336	199	15	362	37	3870	1996	6	18	6839
Sagarmatha	640	268	39	453	29	4015	680	0	14	6138
Seti	470	107	23	274	16	2909	922	9	4	4734
Mahakali	232	169	8	109	17	1033	402	0	6	1976
Rapti	232	186	6	207	43	1191	297	14	4	2180
Total	83369	14859	4919	29812	7323	347452	33865	1766	5205	528570

Source: Department of Transport Management, Government of Nepal

Similarly, 3213, 2793, 8630, 5123, 21712, 1677, 1482 and 4445 were bus, minibus, truck/tanker, tempo, motorcycle, tractor, microbus and other respectively. After Bagmati, large number of automobile was registered in the Narayani; in total it occupied 17.91%. The total number has reached upto 99,290. Mostly motorcycle, truck/ tanker, tractor, car/jeep /can were registered in the Narayani. Koshi and Lumbini occupied 6.28% and 5.92% respectively. In numbers 33,055 and 31, 174 were registered in Koshi and Lu mbani respectively. Similarly, number of automobile registration in Gandaki, Janakpur, Bheri, Mechi, Sagarmatha, Seti, Mahakali, Rapti were 27671, 10817, 10054, 6839, 6138, 4734, 1976 and 2180 respectively.

Figure No. 4.4

Zone-wise Vehicle Registration



The figure shows zone wise automobile registration in term s of percentage in total. The proportion is on the basis of numbers not in value.

4.2 Type of Ownership of the Sample Automobile Dealers

Table No. 4.6

Ownership of the Sample Automobile Dealers

S.N.	Dealer	Type of Organization			
		Sole Trading	Partnership	Public Ltd.	Private Ltd.
1	AIT	√	-	-	-
2	AVCO	-	-	-	√
3	CTE	-	-	-	√
4	STPL	-	-	-	√
5	UTSPL	-	-	-	√
Total		1	-	-	4

Capital accumulation, mode of control, decision m a king, and size of business depend upon type of ownership to very large extent. One (20%) out of five automobile dealer was registered as sole trading and the remaining four (80%) were registered as private limited. Except Arun Intercontinental Traders (AIT) other automobile dealers were registered as private limited. AIT was registered as sole trading.

4.3 Category of the Products Dealt by Sample Dealers

Table No. 4.7

Category of the Products Dealt by Sample Dealers

S.N.	Dealer	Type of Organization			
		Vehicle-PC	Vehicle-CV	Spares	Services
1	AIT	√	-	√	√
2	AVCO	√	-	√	√
3	CTE	√	√	√	√
4	STPL	√	√	√	√
5	UTSPL	√	√	√	√
Total		5	3	5	5

The focus of the study was PC (Light Automobiles) only. But same automobile dealers deal both light and heavy commercial automobiles. Same auto maker manufactures both type o f automobile and in turn their dealers also deal the entire products. Toyota, Kia, Tata motor manufacturer produce their automobile in wide variety including both commercial heavy automobiles and passenger cars. So their dealer deals both type of automobiles out of 5 sample dealers, 3 dealers deal commercial heavy automobiles. For after sales support, all the dealers have own workshop and spare parts centre/outlets. Arun Intercontinental Traders has Shree Himalayan Ent. Pvt. Ltd to manage Spare and Services

4.4 Management Accounting Practices in the Sample Dealers

Table No. 4.8

Management Accounting Practices in the Sample Dealers

S.N.	Management Accounting Tools	Organization					Total	%
		AIT	AVCO	CTE	STPL	UTSPL		
1	Capital Budgeting	√	√	-	√	√	4	80
2	Cost Segregation into Fixed and Variable	√	√	√	√	√	5	100
3	Tax Effect Analysis	√	√	√	√	√	5	100
4	Standard Costing	√	√	√	√	√	5	100
5	Break Even Analysis (BEP) Cost-Volume Profit (CVP) Analysis	√	√		√	√	4	80
6	Ratio Analysis/ Financial Statement Analysis	√	√	√	√	√	5	100
7	Master Budgeting	√	√	√	√	√	5	100
8	Flexible Budgeting	√	-	-	√	√	3	60
9	Responsibility Accounting	√	-	-	√	√	3	60
10	Activity Based Costing (ABC)	√	-	√	-	-	2	40
11	Cash Flow Statement	√	√	√	√	√	5	100
12	Zero Based Budgeting	-	-	-	-	-	0	0
13	Lease or Buy	-	-	-	√	-	1	20
Total		11	8	7	11	10		
Percentage		84.62	61.54	53.85	84.62	76.92		

Where,

Arun Intercontinental Traders	AIT
Avco International Pvt. Ltd.	AVCO
Continental Trading Enterprises Pvt. Ltd.	CTE
Sipradi Trading Pvt. Ltd.	STPL
United Traders Syndicate Pvt. Ltd.	UTSPL

[There abbreviations have been used here for ease which may or may not have used by the dealers themselves.]

Capital Budgeting was practiced by 80% (4 out of 5) automobile dealers. CTE (Kia Motors) did not practice cap ital budgeting. They didn't felt necessary it y e t and took it as not relevant to their business. Capital budgeting is necessary and relevant to each and every business whether it is manufacturing or trading. Other dealer s practiced capital budgeting and they used different techniques of capital budgeting.

All automobile dealers under sample selection used cost segregation into fixed cost and variable cost. Similarly all automobile dealers did tax effect analysis and applied standard costing. Break even (BEP) analysis was practiced by 4 out of 5 (80%) dealers. CTE did not practice BEP; they didn't feel it necessary and relevant yet. BEP is an important tool of profit planning. Dealers can express their Break Even (No profit no loss) in terms of sales volume, number of automobile sold, no of automobile serviced etc. All these five dealers did financial statement analysis and master budgeting. But flexible budgeting was practiced by 3 out of 5 (60%) dealers. There as on was the same as they did not feel necessary and relevant. Flexible budget can be prepared in terms of sales volume of different range (number of automobile sold for sales and number of automobile serviced for workshop likewise inventory turnover for spare parts). It is also a technique of profit planning in the hand of manager.

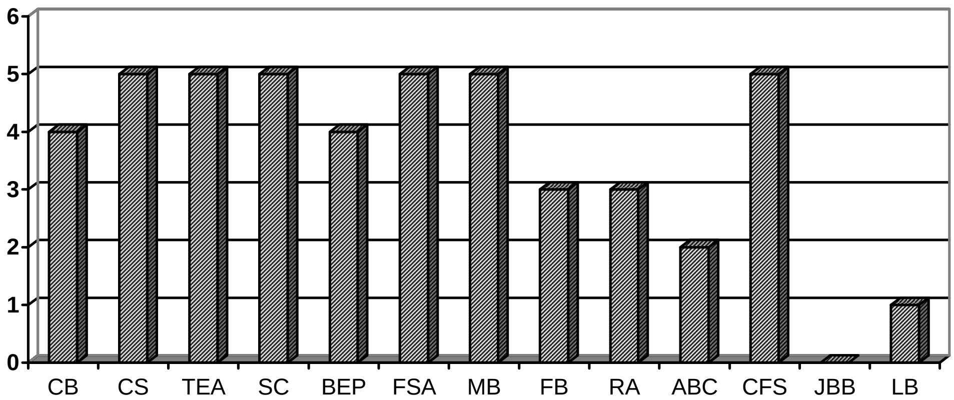
As an effective method of evaluating performance of people and department, responsibility accounting was practiced only by 3 out of 5 (60%) automobile dealers. Both Indian automobile dealers AIT and STPL did practice responsibility accounting. UTSPL also used responsibility accounting. Remaining Avco and CTE did not practice it.

Activity Based Costing (ABC) was practiced only by 2 out of 5 (40%) automobile dealers; AIT and CTE, one Indian automobile dealer and one from others automobile dealer. Avco, UTSPL and Indian automobile dealer STPL did not practice ABC. They applied the concept but did not practice the tool. All the sample automobile dealer s practiced cash flow statement as a part of master budgeting. Zero based budgeting (ZBB), modern technique of budgeting / forecasting was not used by any of the selected automobile dealers. Lease or buy, decision m a king regarding alternative choices were practiced by only one Indian automobile dealer. Other automobile dealers did not use those tools since they felt it's not relevant and not necessary yet.

Cost segregation into fixed cost and variable cost, tax effect analysis, stand a rd costing, ratio analysis, master budgeting, cash flow statement were practiced by all sample automobile dealers. Zero based budgeting was not in practice at all. Other capital budgeting, break even analysis, flexible budgeting, responsibility accounting, activity costing and lease or buy were partially practiced in these selected sample automobile dealers.

Figure No. 4.5

Management Accounting Tools Practiced by Vehicle Dealers



Source: Table No. 4.8

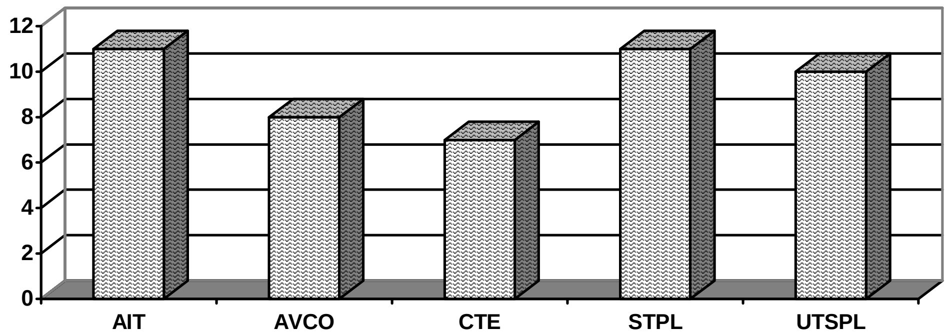
Where

CB	=	Capital Budgeting
CS	=	Cost Segregation into Fixed and Variable
TEA	=	Tax Effect Analysis
SC	=	Standard Costing
BEP	=	Break Even Analysis (B EP)/Cost-Volume-Profit (CVP) Analysis
FSA	=	Ratio Analysis/Financial Statement Analysis
MB	=	Master Budgeting
FB	=	Flexible Budgeting
RA	=	Responsibility Accounting
ABC	=	Activity Based Costing (ABC)
CFS	=	Cash Flow Statement
ZBB	=	Zero Based Budgeting
LB	=	Lease or Buy

Both Indian automobile dealers, AIT and STPL have been practicing almost 11 out of 13 (84.62%) management accounting tools. Dealer of Japanese Automobile Toyota, UTSPL has practiced 10 out of 13 (76.92%) tools. Similarly numbers of management accounting tools practiced by Korean automobile dealers AVCO and CTE were 8 and 7 respectively.

Figure No. 4.6

Number of Tools Practiced by Dealers



Source: Table No. 4.8

Thus Avco and CTE were practicing less management accounting tools. The figure shows numbers of management accounting tools practiced by sample automobile dealers. Although management accounting has wide application in each kind of organization, dealers have not practiced all of them.

Table No. 4.9

Hypothesis Test

Name of Organization	No. of Tools Practiced (X)	d = X – A (10)	d^2
Arun Intercontinental Traders	11	1	1
Avco International Pvt. Ltd.	8	-2	4
Continental Trading Ent. Pvt. Ltd.	7	-3	9
Sipradi Trading Pvt. Ltd.	11	-1	1
United Traders Syndicate Pvt. Ltd.	10	0	0
		$\sum d=-3$	$\sum d^2=15$

A.M. $\overline{X} = A + \frac{\Sigma d}{n}$

$= 10 + \frac{-3}{15}$

$= 9.4$

Hence the Average accounting tools used was 9.4, rounding the figure in average 9 tools were used by the sample automobile dealers.

Null hypothesis (H): μ = 9 i.e. the automobile dealers have practiced at least 9 out of 13, Management accounting tools. In an other words, the management accounting too l s practiced by these dealers are above 9.

Alternative Hypothesis (H): μ< 9 (left tailed test) i.e. these dealers have practiced less than 9 management accounting tools.

$$\text{Also, } \hat{\sigma}^2 = S^2 = \frac{1}{n-1}\left[\sum d^2 - \frac{(\sum d)^2}{n}\right]$$

$$= \frac{1}{5-1}\left[15 - \frac{(-3)^2}{5}\right]$$

$$= \frac{1}{4}\left[15 - \frac{9}{5}\right]$$

$$= 3.3$$

$$S = \sqrt{3.3}$$
$$=1.816$$

Test Statistic,

$$t = \frac{\overline{X} - \mu}{S/\sqrt{n}}$$

$$= \frac{9.4 - 9}{1.8166/\sqrt{5}}$$

$$= .4924$$

Degree of freedom (d.f.) = n-1 = 5-1 =4

Level of significance, a = 0.05

Critical Value: The tabulated value of t at a = 0 . 05 and 4 d.f. for one tailed test is 2. 132, $t^{0.05,4}$ =2.132

Decision

Since the calculated value of t is less than the tabulated value of t , the null hypothesis

(H) is accepted. Hence it can be concluded that the selected dealers have practiced more than 9 out of 13 management accounting tools.

4.5 Reason for not Practicing the Management Accounting Tools

Table No. 4.10

Reason for Not Practicing the Management Accounting Tools

S.N.	Reason	Dealers					Total
		AIT	AVCO	CTE	STPL	UTSPL	
1	Not Relevant	√		√		√	3
2	Not Felt Necessary		√	√	√		3
3	Cost Factor						
4	Lack of Information						
5	Lack of Expertise						
Total		1	1	2	1	1	

All the automobile dealers accepted only two reasons for not practicing the management accounting tools; those were not relevant and not felt necessary yet. They did not think they lack information and expertise, nor they agreed the time and cost as the cause of not practicing these management accounting tools.

4.6 Access to Information Technology (IT)

Table No. 4.11

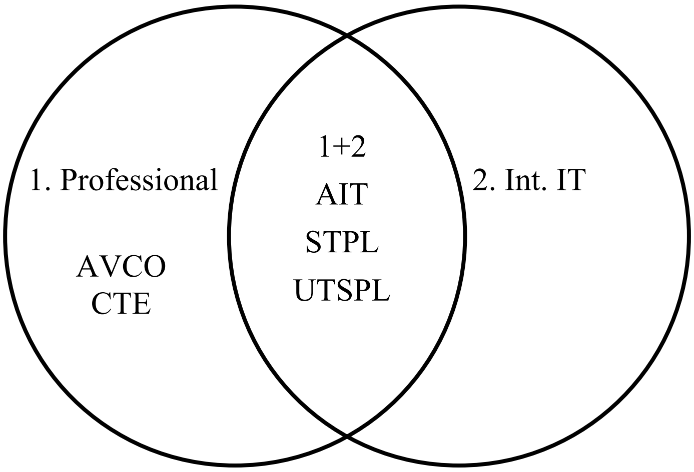
Access to Information Technology (IT)

S.N.	Dealer	Type of System			
		Professional	Internal IT	Manual	Total
1	AIT	√	√		2
2	AVCO	√	-		1
3	CTE	√	-		1
4	STPL	√	√		2
5	UTSPL	√	√		2
Total		5	3	-	

This is the age of Information Technology (IT). It is dominantly and drastically changing the way of doing work making the working system systematic. Tedious works are taking away by these IT system s. The automobile dealers need awareness to wards the importance of IT. The table shows that Manual Accounting System has been totally removed fro m these sample automobile Dealers. All the automobiles dealers (5 out of 5) were using professional accounting software. Out of 5 automobile dealers, 3 have their own IT departments to develop own systematic and regulate professional systems. Both of Indian Automobile dealers AIT and STPL have their own IT department. But in others category, only UTSPL (1out o f 3) has their own internal IT department.

Figure No. 4.7

System in Vehicle Dealers



4.7 Technique to Segregate Cost into Variable and Fixed Cost

Table No. 4.12

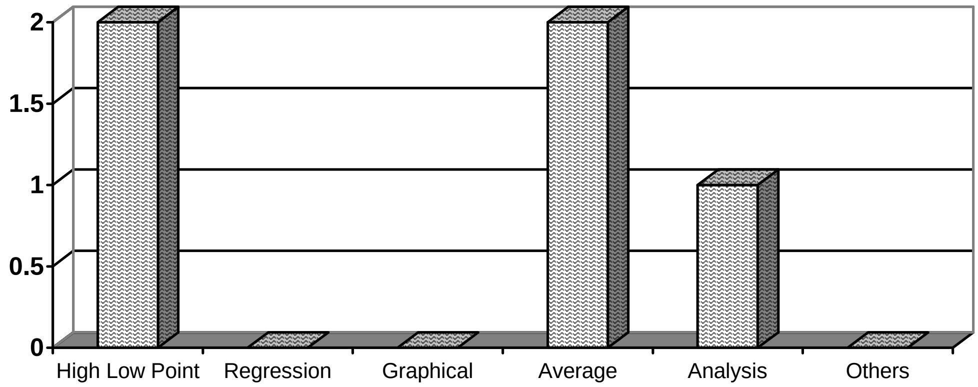
Technique to Segregate Cost into Variable and Fixed Cost

S.N.	Techniques	Dealers					Total
		AIT	AVCO	CTE	STPL	UTSPL	
1	High Low Point Method	√				√	2
2	Regression Method						
3	Graphical Method						
4	Average Method			√	√		2
5	Analysis Method		√				1
6	Others						
Total		1	1	1	1	1	5

Only two automobile dealers (AIT and UTSPL) used high low point method to segregate mix cost into variable and fixed cost. Group wise 1 out of 2 Indian automobile dealers and 1 out of 3 other automobile dealers used High low point method. CTE and STPL used average method. Avco used analysis method. The most accurate method namely Regression was not in practice at all. Likewise graphical method was also not practiced by both Indian and other automobile dealers.

Figure No. 4.8

Technique of Cost Segregation



High and low point method was practiced by 40% (2 out of 5) of sample automobile dealers. Similarly average method was also practiced by 40% (2 out of 5) of sample automobile dealers.

4.8 Basis for Preparation of Budget

Table No. 4.13

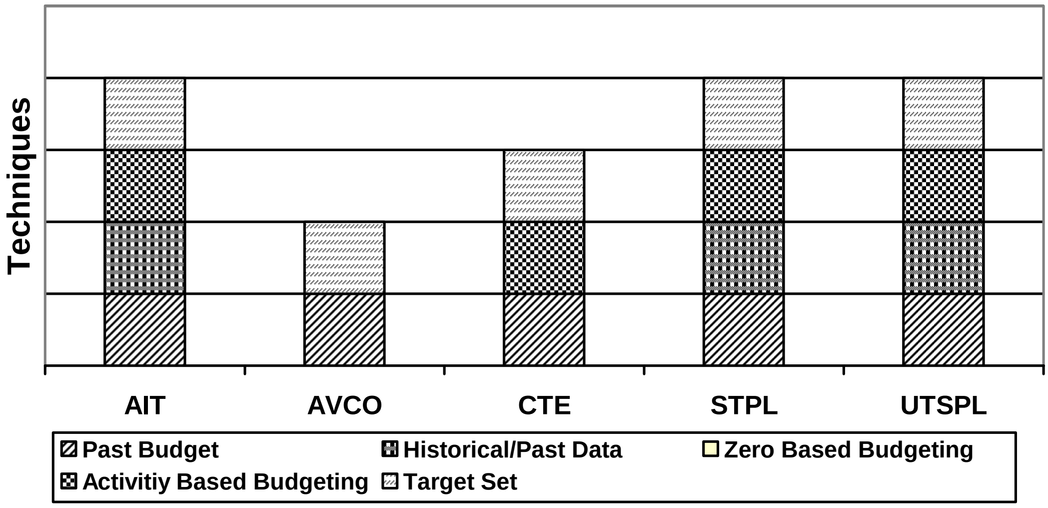
Basis for Preparation of Budget

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Past budget	√	√	√	√	√	5
2	Historical/ past Data	√			√	√	3
3	Zero Based Budgeting						
4	Activity Based Budgeting	√		√	√	√	4
5	Target set	√	√	√	√	√	5
	Total	4	2	3	4	4	17

All sample automobile dealers considered past budget and target to make their budget. Similarly past actual data was used by 60% (3 out of 5) of dealers. The dealers were AIT, STPL and UTSPL. Zero Based Budgeting (Z BB) was not in practice. However, Activity Based Budgeting (ABB) was practiced by 80% (4 out of 5) automobile dealers. Except AVCO other automobile dealers used Activity Based Budgeting (ABB). The dealers used multiple methods rather than only one. AIT, STPL and UTSPL used past budget, historical/past data, ABB and target set. AVCO used past budget and target set only. CTE used past budget, ABB and target set. The figure shows different bases used by automobile dealer for preparation of budget.

Figure No. 4.9

Basis for Preparation of Budget



4.9 Type of Budget

Table No. 4.14

Types of Budget

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Overall Master Budget	√	√	√	√	√	5
2	Operational Budget Only						
3	Long Term Budget						
4	Annual Budget	√	√	√	√		4
5	Cash Budge Only			√			1
	Total	2	2	3	2	1	10

All sample automobile dealers practiced overall master budget. They used to prepare annual budget. No dealer practiced operational budget and long term bud get. CTE practiced cash budget only also and UTPL practiced overall master budget. Annual budget and overall master budget was practiced by AIT, AVCO, CTE and STPL.

4.10 Responsibility for Preparation of Budget

Table No. 4.15

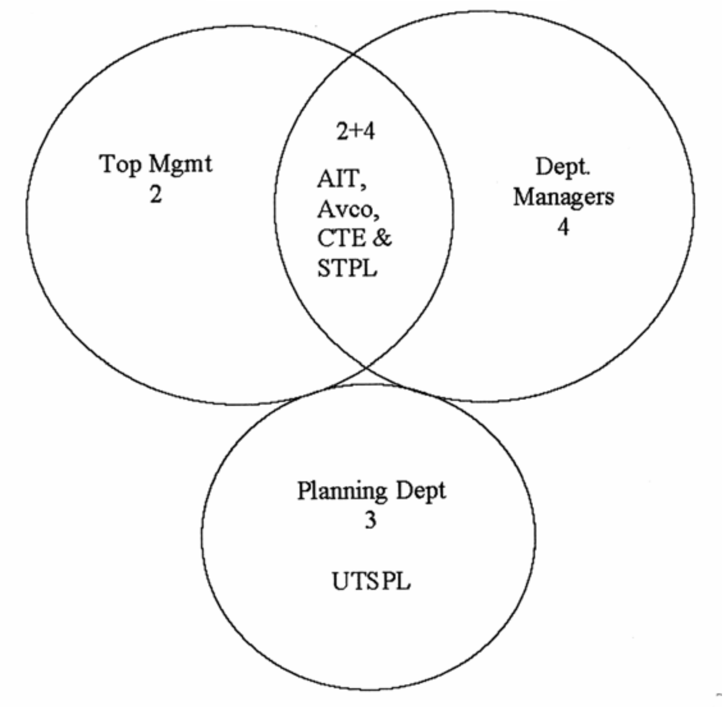
Responsibility for Preparation of Budget

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Separate Budget Committee						
2	Top Management	√			√		2
3	Planning Department					√	1
4	Departmental Manager/ Incharge	√	√	√	√		4
5	Out Side Expert						
	Total	2	1	1	2	1	7

The sample automobile dealers have no separate budget committee. Budget was prepared mostly by Departmental manager/incharge. In 80% (4 out of 5) of dealers budget was prepared by Departmental manager/incharge. Along with Departmental manager, top management prepared budget in AIT and STPL. In UTSPL budget is prepared by planning department. In terms of percentage, in 40% (2 out 5 dealers) of dealer, the top management prepared budget. Both of these two automobile dealers were Indian automobile dealers, AIT and STPL.

Figure No. 4.10

Responsibility of Budget



4.11 Time Frame of Budget

Table No. 4.16

Time Frame of Budget

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Short Term (one year or less)	√	√	√	√		4
2	Mid-term (between one and five years)	√				√	2
3	Long term (five years and more)		√				1
	Total	2	2	1	1	1	7

Preferably automobile dealers used to prepare annual master budget. 80% of dealers (4 out of 5, AIT, Avco, CTE and STPL) used to prepare short term (=<1Year) budget. 40% (2 out of 5, UTSPL and AIT) used to prepare mid term (1-5 years) budget. Along with the short term budget AVCO used to prepare along term (> 5 years) budget as well. Only AVCO prepared long term budget. AIT used to prepared both short term and mid term budget.

4.12 Techniques of Capital Budgeting

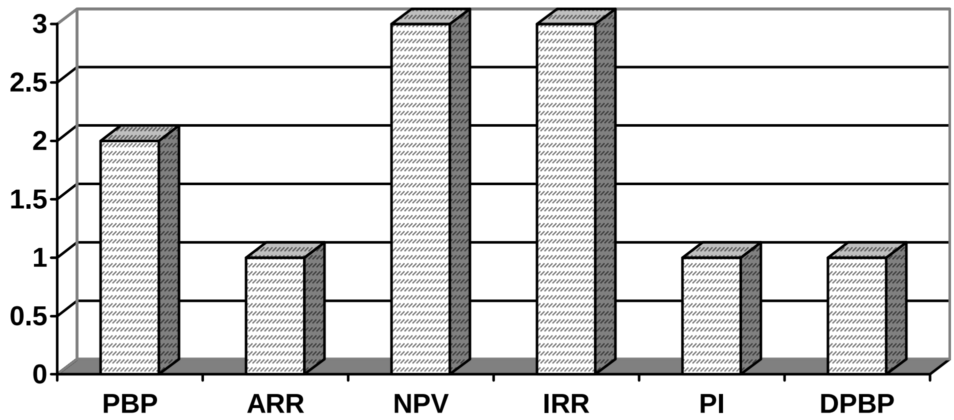
Table No. 4.17

Techniques of Capital Budgeting

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Payback Period (PBP)	√				√	2
2	Average Rate of Return (ARR)					√	1
3	Net Present Value (NPV)	√			√	√	3
4	Internal Rate of Return (IRR)		√		√	√	3
5	Profitability Index (PI)					√	1
6	Discounted Payback Period (DPBP)					√	1
	Total	2	1		2	6	11

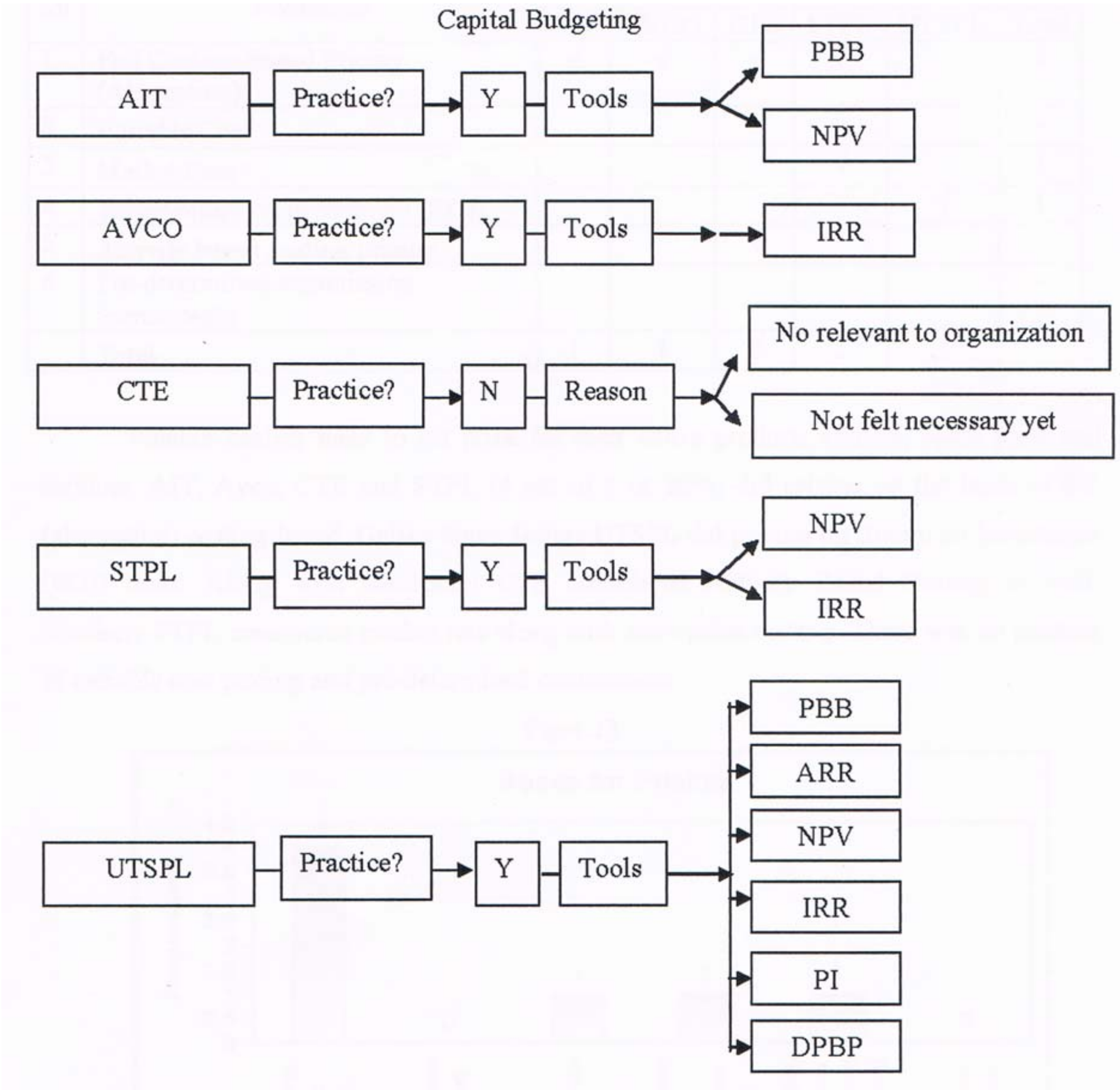
Figure No. 4.11

Use of Different Techniques of Capital Budgeting



For Evaluation of project/cap ital budgeting Net Present Value (NPV) and Internal Rate of Return (IRR) were mostly used. These two techniques were used b y 60% (3 out of 5) automobile dealers. AIT, STPL and UTSPL used NPV. Similarly AVCO, STP L and UTSPL used IRR. Some dealers used multi technique rather than only one technique

Figure No. 4.12



UTSPL used all most all techniques PBP, ARR, NPV, IRR PI and D P BP. AIT uses PBP and NPV. AVCO used only IRR. STPL used NPV and IRR both. But CTE was not doing capital budgeting at all. Payback period was used by two automobile dealers. Average rate of return, profitability index and discounted payback period each were practiced by only one automobile dealer. The most appropriate method net present value was not practiced by all of the selected automobile dealers. AVCO was practiced only internal rate of return.

4.13 Pricing Products/Services

Table No. 4.18

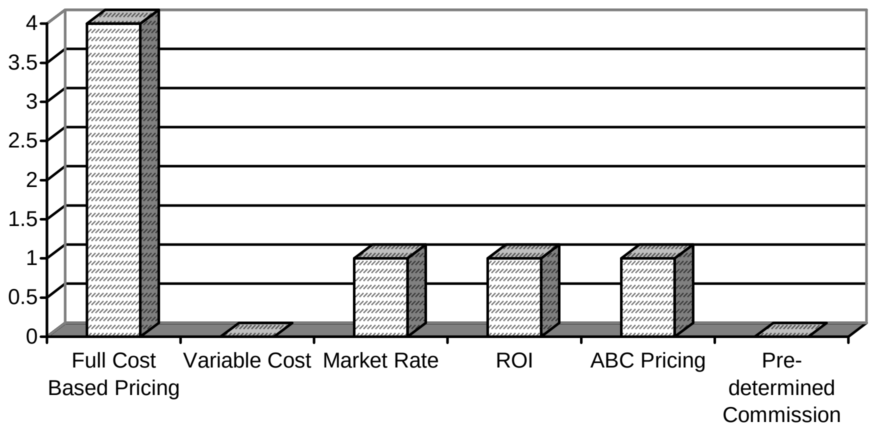
Pricing Product/Service

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Full Cost Based Pricing (Absorption)	√	√	√	√		4
2	Variable Cost						
3	Market Rate				√		1
4	Target Return on Investment (ROI)					√	1
5	Activity Based Cost Pricing			√			1
6	Pre-determined Commission(Percentage)						
	Total	1	1	2	2	1	7

Automobile dealers need to set price for their entire product; automobile, spare parts and services. AIT, AVCO, CTE and STPL (4 out of 5 or 80%) did pricing on the basis of full (absorption) costing based. Unlike these dealers UTSPL did pricing on Return on Investment (ROI) basis. Along with absorption CTE considered Activity Based Costing as well. Similarly STPL considered market rate along with absorption costing. There was no practice of variable cost pricing and pre-determined commission.

Figure No. 4.13

Bases for Pricing



As there was no practice of pricing on the basis of pre-determined commission, dealers are independent to set price of their product. AIT , AVCO and USTPL considered single factor/technique. But CTE and STPL considered two bases for pricing their products.

4.14 Measure and Control of Overall Performance

Table No. 4.19

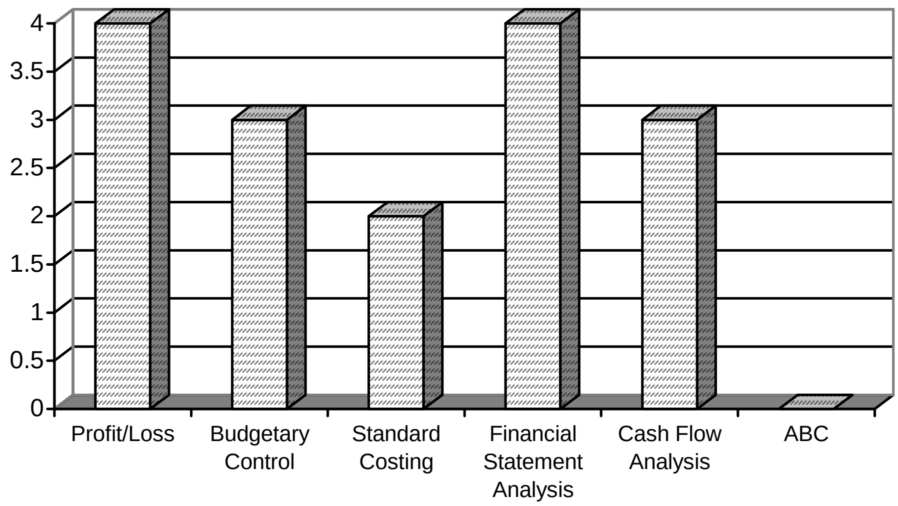
Measure and Control of Overall Performance

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Profit/Loss	√		√	√	√	4
2	Budgetary Control	√		√	√		3
3	Standard Costing	√			√		2
4	Financial Statement Analysis	√	√	√	√		4
5	Cash-flow analysis	√		√	√		3
6	Activity based costing						
	Total	5	1	4	5	1	16

Automobile dealers preferably used financial statement analysis and profit and loss to evaluate overall performance. 80% (4 out of 5) did evaluation on the basis of profit and loss and financial statement analysis. AIT , CTE, STPL and UTSPL used profit and loss.

Figure No. 4.14

Basis for Measurement of Overall Performance



Similarly AIT, AVCO, CTE and STPL used financial statement analysis to measure, evaluate and control overall performance. UTSPL de finitely did financial statement Analysis/ratio analysis but for evaluation of performance it preferred to use profit and loss only. 3 out of 5 automobile dealers (ATI, CTE, and STPL) measured budgetary control for evaluation of performance.

Standard costing was used only by Indian automobile dealers, AIT and STPL. In other than Indian automobile dealers (AVCO, CTE and UTSPL) they practiced Standard costing but did not apply standard costing as base to measure and control overall performance. Cash flow statement analysis was used to measure performance in 60% automobile dealers (3 out of 5; AIT, CTE and STPL). AVCO and UTSPL were considering single factor/base. AIT, CTE and STPL were using multifactor.

Activity Based Costing (ABC) was not practiced for performance evaluation. Only two dealers AIT and CTE are using ABC as management accounting tool but they were not using this tool for performance evaluation.

Responsibility accounting was practiced in 3 out of 5 automobile dealers (AIT, STPL and UTSPL). Responsibility accounting is also a technique to measure performance people and department.

4.15 For Forecast/estimate the Costs and Revenues

Table No. 4.20

For Forecast/estimate the Costs and Revenues

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Past Trend Analysis	√	√	√	√	√	5
2	Zero Based Budgeting						
3	Market Survey	√		√	√		3
4	Judgmental analysis				√		1
	Total	2	1	2	3	1	8

All automobile dealers did forecast/estimate the cost and revenue on the basis of past trend analysis. Along with the past trend analysis market survey was also used by AIT, CTE and STPL. In term of percentage market survey was used by 60% (3 out of 5) automobile dealers. Judgmental analysis was done only by STPL. Modern techniques Zero Based Budgeting (ZBB) was not practice by any of these automobile dealers. AVCO and UTSPL were relying on only past trend analysis. However AIT, CTE and STPL were considering multifactor, to forecast/estimate the cost/revenues.

4.16 Issue o f Inventory

Table No. 4.21

Issue o f Inventory

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	First in First Out (FIFO)	√		√			2
2	Last in Last Out (LIFO)		√				1
3	Weighted Average				√	√	2
4	Simple Average						
	Total	1	1	1	1	1	5

For costing of issue of inventory two dealers (AIT and CTE) used FIFO, one dealer (AVCO) used LIFO and remaining two dealers (STPL and UTSPL) used weighted average method. Simple average was not in practice.

4.17 Consideration for Inventory Procurement

Table No. 4.22

Consideration for Inventory Procurement

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Economic Order Quantity (EOQ)	√	√		√	√	4
2	Lead Time	√			√	√	3
3	Re-ordered Level (Min-stock level)	√		√	√	√	4
4	Consumption Rate (Past Trend)	√			√	√	3
5	Demand Order place by Customer	√			√		2
6	Just in time (JIT Philosophy)						
7	Inventory Count (Period Model)	√			√		2
	Total	6	1	1	6	4	18

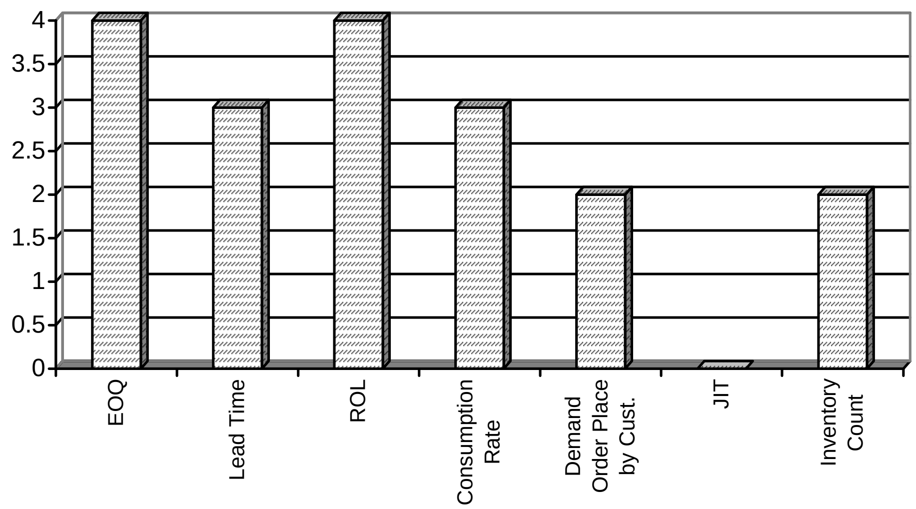
4 out of 5 automobile dealers were practicing Economic order quantity (EOQ). Except CTE other dealers were practicing EOQ while procuring inventory.

Lead time was considered by AIT, STPL and UTSPL. Reorder level was considered by AIT, CTE, STPL and UTSPL.

Hence 4 out of 5 (80%) dealers used reorder level. Similarly order placed by customer, inventory count (Period model) was considered only by Indian automobile dealers AIT and STPL. AIT, STPL and UTSPL consider e d multi factors. But AVCO and CTE were considering single factor. AVCO considered only EOQ and CTE considered only reorder level.

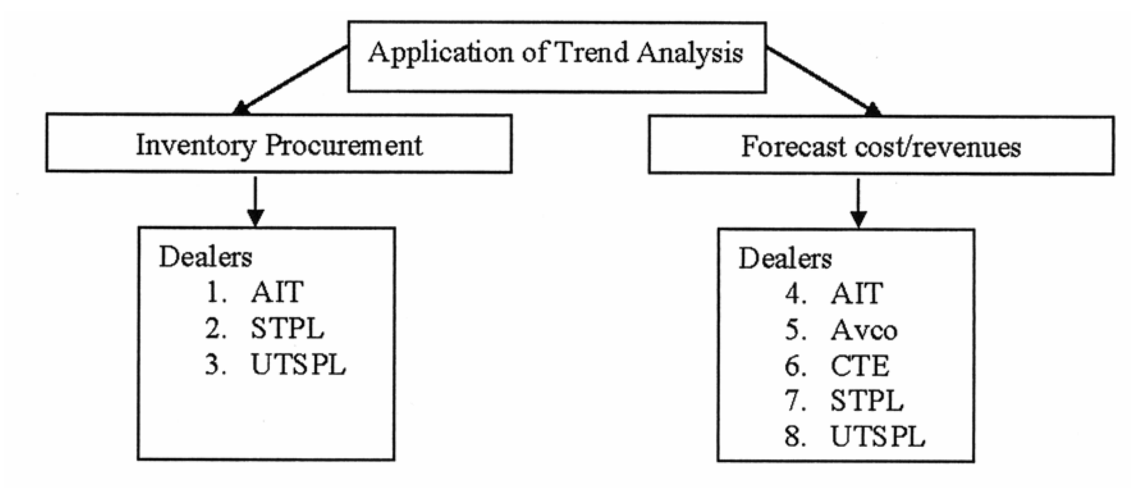
Figure No. 4.15

Consideration for Inventory Procurement



Only three automobile dealers; AIT, STPL and UTSPL were using trend analysis. AVCO and CTE were not applying trend analysis for planning inventory requirement.

Fig-4.16



New concept Just in Time (JIT) philosophy was not in practice. AIT and UTSPL considered concept of JIT but not implemented it fully. Rather they practiced Automobile off the road (AOR).

AOR versus JIT

Automobile off the road (AOR) is a type of special order/indent placed by dealer on urgent cases. For normal case they do normal indent like weekly/monthly/yearly. If the automobile is off the road lack of any specific spares, such special order AOR is raised. It is raised to solve current problem as and when the spare is needed. Such type order is not placed for stocking the spares. Although AOR is also procuring the needed spare just in time, it is different from Just in time (JIT) philosophy. JIT system is philosophy of procuring all the requirements just in time when they are needed, minimizing overstocking / hand ling and wastage. The AOR is only a kind of order which is not placed periodically, and placed in case of urgency only. But JIT is the philosophy of procuring all the items just in time whenever is needed. The entire automobile dealer practiced AOR but JIT was not in practice. They only applied concept of this philosophy.

4.18 Inventory Control

Table No. 4.23

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Total Value Basis	√		√	√	√	4
2	Total Quantity Basis	√		√	√		3
3	Characteristics of Particularly item		√				1
4	ABC Analysis				√		1
	Total	2	1	2	3	1	9

Inventory is a component of current assets. It should be optimum in both in terms of value and quantity. It is fund tied up for management which has alternative use if investment goes on excessive. If it’s kept lower it will spoil the business due to non availability of the parts which affect sales of automobile and organization as a whole.

To control inventory total value basis (Cost app roach) analysis is mostly used, 4 out of 5 (80%) used such practice. But AVCO was not practicing this technique. It was considering characteristic of particular item s. Another mostly practiced technique was total quantity bas i s (Space approach).

Along with total value, total quantity was al so considered by AIT, CTE and STPL (3 out of 5 dealers).

ABC analysis was practiced by STPL only, along with total value and total quantity. Both Indian Automobile dealers were considering multiple methods, AVCO and UTSPL were considering single factor. Characteristics of particular items were identified only by AVCO for the controlling purpose.

4.19 Transfer Pricing

Table No. 4.24

Transfer Pricing

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Market Price Based			√			1
2	Cost Price Based	√	√		√		3
3	Target Return Based					√	1
4	Negotiation						
5	General Pricing (Opportunity Cost Basis)						
	Total	1	1	1	1	1	5

In automobile dealer ship mainly stock transfer from one department/branch to other department/branch constitutes transfer price. Likewise service charged by machine/lathe department to workshop is another form of transfer pricing. Similarly denting painting service charge by denting painting department to workshop is also a form of transfer. Such transfer pricing was done on market price based by CTE. It was done in target return basis by UTSPL. The rest three dealers used cost price based. In terms of percentage 60% automobile dealers used cost price, 20% market price based and 20 % target return basis. No sample automobile dealer used negotiation pricing and general transfer pricing.

4.20 Allocation of Departmental Cost

Table No. 4.25

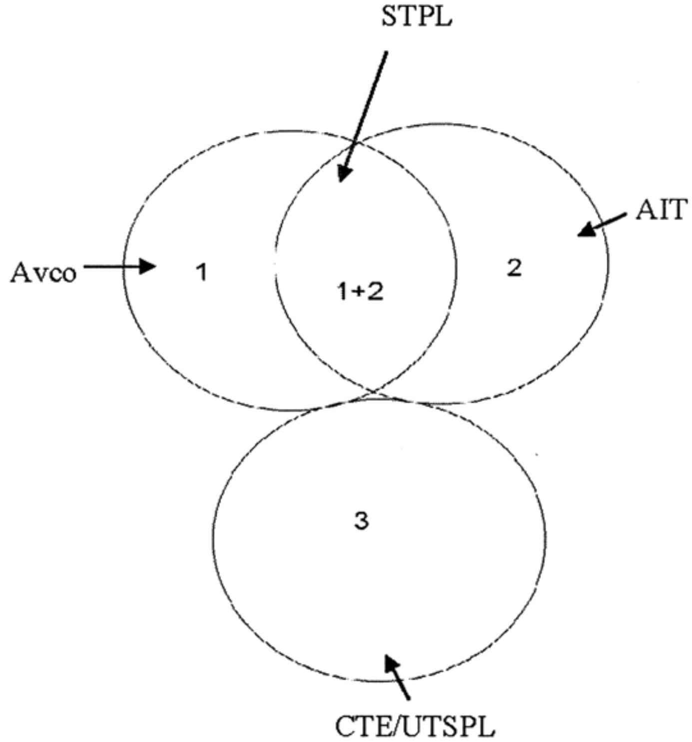
Allocation of Departmental Cost

S. N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Sales Unit		√		√		2
2	Sales Revenue	√			√		2
3	Negotiation			√		√	2
	Total	1	1	1	2	1	6

For allocation of mixed (departmental) cost, sales unit and sales revenue and negotiation were equally used. AIT was using sales revenue. AVCO was using sales unit. CTE and UTSPL used negotiation. STPL was using both sales unit and sales revenue. Except STPL, other automobile dealers were using single base; either sales unit or negotiation as a base for allocation.

Figure No. 4.17

Basis for Allocation of Departmental Cost



In terms of percentage all these techniques were used by 40% of automobile dealers. Activity based costing (ABC) method of allocating overhead to products with application of relationship between overhead costs and activities were practiced by AIT and CTE.

4.21 Accounting Related Decision

Table No. 4.26

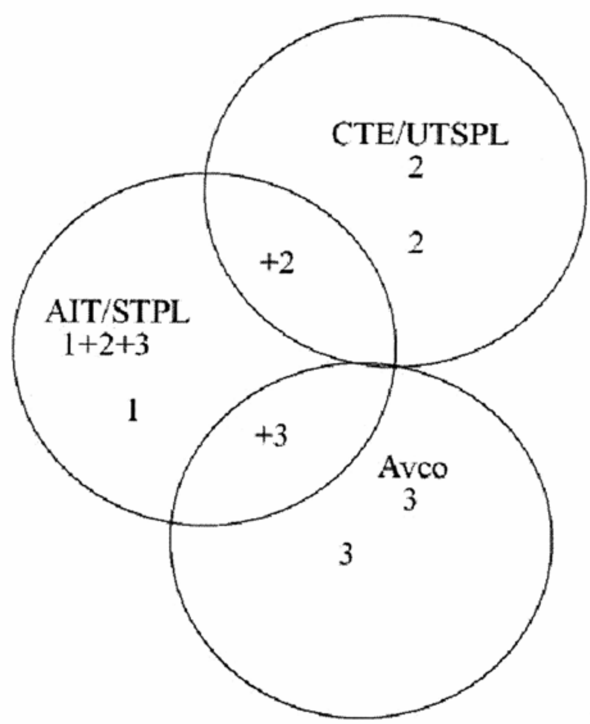
Accounting Related Decision

S.N.	Technique	Dealers					
		AIT	AVCO	CTE	STPL	UTSPL	Total
1	Management Accounting Tools	√			√		2
2	Objectives of Organization	√		√	√	√	4
3	Decision of Top Management	√	√		√		3
4	Advise of Vendor						
	Total	3	1	1	3	1	9

Mostly accounting related decision was taken on the basis of objective of organization. 4 out of 5 considered objective of the organization.

Figure No. 4.18

Basis for Accounting Related Decision



But AVCO took decision at top management level. Only two automobile dealers AIT and STPL considered Management accounting tools. AIT and STPL considered three criteria namely; management accounting tools, objective of organization and decision of top management. UTSPL considered only objective of organization. No automobile dealer was following the advice of vendor. It showed that they were independent in making own decision. On group wise basis no dealer from other group followed management accounting tools. Both sample Indian automobile dealers AIT and STPL followed management accounting tools for decision making.

4.22 Difficulties in Application of Management Accounting Tools by Automobile Dealer

- Cost and time factor
- Lack of Industry data
- No proper standard

Automobile dealers did not think difficulties in application of management accounting tools. They claimed that they were using all the relevant management accounting tools in planning, controlling and decision making. They thought that the management accounting tool they did not use, were not relevant and not necessary. However there was gap between theory and practice. Non use of capital budgeting, break even analysis, flexible budget by automobile dealers revealed that they have no awareness about the importance of these tools. Except cost and time factor other problems were lack of proper industry data and standard. In many cases, managers have to compare their status and achievement with same other dealers/competitors and industry average to evaluate their achievement. Relative strength/weakness or position of the business will be known when it is compared to standard or others. Likewise regarding SWOT (strength, weakness, opportunities and threats) analysis of own and competitors, updated industry data and proper standards are necessary. Financial statement analysis /ratio analysis will give more meaningful result if it can be interpreted by comparing with standard and industry data. But in Nepalese context, the data was not available. Department of transport provides the data about the registration of automobile and other regulations. Likewise FNCCI and TPC provide import statistics. But there were no specialized institution/organization to research on micro level. NADA Auto Information Centre (AIC) was established one decade earlier, but on account of lack of resources it was unable to become result oriented.

4.23 Potential Benefits of Management Accounting for Automobile Dealer

- Effective/quick decision making and control
- Accurate Data finding
- Budget controlling
- Effective Control
- Proper planning

For proper planning, effective control and judicious decision making management accounting is very important. Management accounting tools are powerful weapons to survive in competitive market and lead the organization towards success. Automobile dealers opined that management accounting helps in accurate data finding, proper planning, budget controlling and effective decision making.

4.24 Test of Hypothesis

Hypothesis for testing of Break Even Point (BEP)

Null hypothesis (Ho):- There is no significant difference between Indian and others automobile dealers in use of Break Even Point (BEP) Analysis

Alternative hypothesis (H):-There is significant difference between Indian and other automobile dealers in practice of Break Even Point (BEP) Analysis

Table No. 4.27

Calculation of Values

Practice of BEP	**Dealers**		**Total**
	Indian	**Others**	
Yes	a=2	b=2	a+b=4
No	c=0	d=1	c+d=1
Total	a+c=2	b+d=3	N=5

For 2×2 contingency table, Test Statistics under H_0 is,

$$\chi^2 = \frac{N(ad-bc)^2}{(a+b)(c+d)(a+c)(b+d)}$$

$$\chi^2 = \frac{5\times(2\times1-2\times0)^2}{4\times1\times2\times3}$$

$$= 0.833$$

Degree of Freedom: (r-1)(c-1) = (2-1)(2-1) = 1

Tabulated Value of χ^2 at 0.05 for 1degree of freedom is 3.84 i.e., χ^2 0.05, 1= 3.84

Decision: since calculated χ^2 is less than tabulated null hypothesis is accepted. 0. 05, 1 hence it can be concluded that there is no significant difference between groups of automobile dealers (Indian and others) and practice of BEP.

Hypothesis for testing o f Activity Based Costing (ABC)

Null hypothesis (Ho):- There is no significant difference between Indian and others automobile Dealers in use of Activity Based Costing (ABC)

Alternative hypothesis (H):-There is significant difference between Indian and other automobile dealers in practice of Activity Based Costing (ABC).

Table-4.28

Calculation of Values

Practice of BEP	Dealers		Total
	Indian	Others	
Yes	a=1	b=1	a+b=2
No	c=1	d=1	c+d=3
Total	a+c=2	b+d=3	N=5

For 2×2 contingency table, Test Statistics under H_0 is,

$$\chi^2 = \frac{N(ad-bc)^2}{(a+b)(c+d)(a+c)(b+d)}$$

$$\chi^2 = \frac{5\times(1\times 2-1\times 1)^2}{2\times 3\times 2\times 3}$$

= 0.1389

Degree of Freedom: (r-1) (c-1) = (2-1) (2-1) = 1

Tabulated Value of χ^2 at 0.05 for 1degree of freedom is 3.84 i.e., χ^2 0.05, 1= 3.84

Decision: since calculated χ^2 is less than tabulated χ^2 null hypothesis is accepted. Hence it can be concluded that there is no significant difference between groups of automobile dealers (Indian and others) and practice of ABC.

4.25 Major Findings

The major findings of the research a r e as follows;

- The total automobile registration including car/jeep /van registration has been in fluctuating trend. However the trend was positive. Total automobile registration increased by 1,347 numbers per year and car/jeep/van registration increased by 106 numbers per year. O u t of total automobile registration almost 56.9% registered in Bagmati zone due to concentrated business opportunities and population density.

- Higher percentages of automobile dealers were registered as private limited. Indian automobile dealer, AIT was registered as sole trading and STPL was registered as Private Limited. All of the others (AVCO, CTE and UTSPL) we re registered as Private Limited.
- Same automobile dealer used to deal both heavy (commercial) automobile and light (passenger car) automobile. 3 out of 5 (60%) dealers did both businesses. Only AIT Indian automobile dealer and AVCO other automobile dealer did passenger automobile dealing the rest (CTE, STPL and UTSPL) dealt both categories.
- Cost segregation into fixed and variable cost , tax effect analysis, standard costing, ratio analysis, master budgeting, and cash flow statement were practiced by all these selected automobile dealers. Zero based budge ting (ZBB) was not in practice at all. Capital budgeting and Break even analysis were not practiced by CTE, but the rest dealers practiced the both management accounting tools. Flexible budgeting and responsibility were practiced only by 60% (3 out of 5, AIT, STPL and UTSPL). Dealers falling under other category AVCO and CTE were not practicing both of these tools. Activity based costing (ABC) was practiced by AIT and CTE, others didn't feel it necessary and relevant. Lease or buy was practiced only by STPL; other automobile dealers did not practice it yet. Both Indian automobile dealer AIT and STPL practiced 11 out of 13 (84.62%) management accounting tools. From other category UTSPL practiced 10 out of 13 (76.92%) management accounting tools. AVCO practiced 8 out of 13 (61.54%) tools. CTE practiced only 7 (53.85%) management accounting tools. Hence India n automobile dealers practiced more than other automobile dealers.
- Reasons for not practicing some of the management accounting tools were not relevant and not felt necessary by them. They didn't realize lack of information, expertise and cost factor, rather they think that these tools were not relevant and not necessary in their business.
- The automobile dealers were aware of importance of IT. The manual accounting system has been to tally eliminated. 3 out of 5 (AIT, STPL

and UTSPL) dealers have their own internal IT department. The selected automobile dealers used professional accounting system.

- Dealers used high-low point method, average and analysis method to segregate cost into fixed and variable. AIT and UTSPL use d High-low point method. CTE and STPL used average method and only AVCO used analysis method. Most accurate method, namely regression was not in practice at all.
- The selected automobile dealers prepared budge t on the basis of past budget on increment basis along with target set. Three dealers used historical data, similarly four dealers used activity based budgeting (ABB). No dealers used zero based budgeting (ZBB).
- All five automobile dealers practiced overall master budget. Usually budget was prepared by department manager/incharge/head. In AIT and STPL, budgets were prepared by both department head and top management. UTSPL has planning department to prepare budget. Separate budget committee and outside experts were not entertained by these selected automobile dealers to prepare budget. Short period time frame was adopted in budget. AIT and UTSPL adopted mid period planning. AVCO used long term planning along with short term budget.
- For capital budgeting NPV and IRR were used by 3 automobile dealers. PBP was practiced only by 2 automobile dealers. ARR, PPI and DPBP were practiced only by UTSPL.
- Full costing was basically used method pricing, 4 automobile dealers used it. Only UTSPL used target return (ROI) method. CTE used activity based costing (ABC) and STPL also consider market rate along with full costing.
- To measure overall performance financial statement analysis was widely used. UTSPL mainly focus on profit and loss. 3 automobile dealers used budgetary control, cash flow and standard costing.
- Forecasting of cost and revenues were done on the basis of past trend analysis in all selected automobile dealers. Similarly market survey was also used by 3 out of 5 automobile dealers.

- FIFO, LIFO and weighted average method were used to pricing inventory issue. EOQ was widely practiced for inventory management, except CTE the rest are practiced EOQ. Minimum stock level was also practiced by 4 out of 5 automobile dealers. Similarly past trend was practiced by 3 automobile dealers. JIT was not in practice. Inventory control was done on the basis of total value (Cost constraint) by 4 dealers. And total quantity (Space constraint) was used by 3 automobile dealers
- Transfer pricing was mainly used on the basis of cost. 3 automobile dealers (AIT, AVCO and STPL) used this method. Market based and target return was practiced by CTE and UTSPL respectively.
- Department cost allocation was made on the basis of sales unit, revenue and negotiation in equal frequencies of two.
- The objective of the organization was considered most while taking decision. Only two Indian automobile dealers (AIT and STPL) considered management accounting tools. Decision of top management was followed by 3 automobile dealers (AIT, AVCO and STPL).
- Main problem in application of management accounting tools in their own words are cost factor, lack of industrial data, no proper standard. In context of Nepal there was no proper information bank and no specialized institution to do research on this automobile sector. So proper and quick data about this automobile sector was not available, making it as a main problem in application of the management accounting tools.
- Potential benefits of management accounting tools in their own words are quick/effective decision making, but get controlling and proper planning.
- Hypothesis test showed that there was no significant difference between Indian and others automobile dealers in practice of Activity Based Costing (ABC) and Break even analysis (BEP)

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Import oriented Nepalese auto business has grown up to very large extent in last three decades. With passage of time, luxury driving desire has changed to necessity. Institution a support from financial sector like, automobile financing and insurance has added momentum to boost this sector. That's why wide variety of automobile are flowing to country and rolling into different parts of country. Not only Indian and Chinese automobile, Japanese, Korean, Malaysian, German, American, French, Italian etc automobiles are also competing in Nepalese auto market. Different and variety of brand in terms of space, power and appearance all are available in Nepalese auto market. Most of the world's auto makers have manufacturing facilities in India, which has been a tremendous influence to import of automobile to Nepalese auto market; the brand of automobile available in India is also available in Nepal.

As this sector is providing direct and indirect employment to more than two lakhs people and contributing up to 20% in total tax revenue, it has been an important sector of Nepalese economy. It is directly related to transportation and environmental pollution issues. Hence proper development of this sector has long term and irreversible impact on economy and environment. Being landlocked country the development of internal road interlinked to neighbor country is important. But due to the difficulties caused by geographical structure and political anarchy, development of road construction has come to stand still.

However Nepalese auto market has positive growth rate with increasing trend of both automobile import and automobile registration. In Nepalese market the competition is tough and turning into cut- throat in nature and market capture in strategies.

For proper management of auto business, management accounting is the must. As these businesses are operating in multi facet, uncertain, dynamic and competitive environment, to sustain and grow their business management accounting is a tool to improve/strengthen the business stamina. Similarly management accounting also helps organization towards achieving the goal through optimum use of scarce resources in the dynamic environment. Avoiding/reducing risk and uncertainty, management accounting helps to make paces of success. Management accounting is more important for decision making. As decision can not be taken in vacuum, it should be based on proper and updated information. Management accounting provides relevant information to simplify the complex and non-programmable decision making improving overall managerial activities. Proper and judicious utilization of management accounting tools lead every organization towards success. Management accounting has wide scope/application whether the business is manufacturing or trading.

The primary objectives of the research were to study the current management accounting practice in selected automobile dealers. The research focused on light automobile: passenger car (PC) automobile dealers. 5 dealers out of 23 PC automobile dealers were selected. Among them three were dealing both light and heavy automobiles. These five automobile dealers were categorized into Indian and Others automobile dealer for research purpose. The study tried to highlight on management accounting tools currently practiced and not practiced by those selected automobile dealers.

For conducting the research the survey type research was designed with descriptive, analytical and comparative approach. Mainly primary data were used. The data were collected via questionnaire; however table talks were also made wherever necessary. The data were tabulated in to comparative tabular form and analyzed with percentage analysis, t-test, chi-square test and trend analysis.

The research revealed that cost segregation into fixed and variable cost, tax effect analysis, standard costing, financial statement analysis, master budgeting and cash flow were widely practiced by automobile dealers. Likewise, capital budgeting, activity based costing (ABC) and cost volume profit (CVP) analysis were also practiced by most of automobile dealers. Flexible budgeting, responsibility accounting, target costing lease or buy were practiced by few automobile dealers. Practice of Zero based budgeting (ZBB), Regression analysis, value engineering were almost nil. Thinking not necessary and not relevant was the main reasons for not practicing these management accounting tools. All the automobile dealers have eliminated manual accounting. They were using professional accounting systems; many of them had their own internal Information Technology (IT) department.

The hypothesis analysis helps to conclude that automobile dealer were practicing more than nine management accounting tools. Similarly there was no significant difference between Indian automobile dealers and other automobile dealers in practice of Break even analysis (BEP) and Activity Based Costing (ABC).

Automobile dealers did not considered predetermined commission while pricing the product/services. Similarly they did not consider the advice of vendor while making account related decision. So it can be concluded that automobile dealers are free in setting prices and decisions making.

5.2 Conclusion

There are many management accounting tools developed to improve performance of business organization. But automobile dealers are not practicing all of them. Rather they are confining their practice to financial accounting and cost accounting. They didn't feel necessary to go beyond these financial accounting and cost accounting. So there exists gap between theory and practice. Practice of regression analysis, zero based budgeting (ZBB), value engineering were almost nil. Even cap ital budgeting, break even analysis, flexible budgeting, responsibility accounting, activity based costing (ABC), lease or buy were partially practiced. It revealed that automobile dealers have no awareness of importance of these tools rather they were following the rules of thumb. Taking decision in vacuum may have long term impact which would be costly to change after put into effect.

The critical problem in automobile dealership business, to apply management accounting tools is lack of industrial data and proper standard. In Nepalese context, there is no specialized organization /institution yet, to formulate standard and research on this sector. Auto Information Centre (AIC) of N ADA is established nearly one decade earlier, but lack of Human resources and other resources, it is not working meaningfully. Likewise FNCCI and Department of Transport, Trade Promotion Centre (TPC) are the other organizations which Provides import and annual registration statistics only. Result oriented information on micro Level is not available easily, so automobile dealers have to gather required information on their own initiation and cost.

Hiring of outside expert is an effective method to solve the problem and apply new management accounting tools effectively. Likewise giving training to staff is also important.

But these practices were rarely found in automobile dealers. They were confined to financial accounting, cost accounting and traditional reporting. Hiring of outside expert, may identify the effective way of using management accounting tools, areas to apply new techniques etc.

Only applying the technique is not adequate, effective and result oriented application is admirable. Value engineering, Just in time (JIT), Zero based budgeting (ZBB), target costing, responsibility accounting, Activity based costing (ABC) are evolved in global perspective to improve performance of the business organization. But due to lack of awareness these tools are not in practice.

5.3 Recommendations

Business needs to operate in an open system, where every external/internal factor affects on its operation, of which some may be out of control. Best fit managerial strategies should be applied in the global perspective. As managerial functions are not programmable and non clerical, timely updated external/internal data are essential. The information is most powerful weapon to sustain in competition and basis to make decision. Judicious use of limited resources, application of modern accounting tools helps to achieve the organization goal. On the basis of the research following recommendations are suggested:

- Timely updated information is needed for proper planning and decision making. But in Nepal there is no specialized institution to provide auto information. So it is recommended to set up own network of management accounting information system (MAIS), with integrate effort of internal/external IT experts. Proper scanning of needed information and dissemination should be done.
- Automobile dealers should not rely on rules of thumb. Because profit does not happen by chance/luck. Rather it should be planned/managed and tracked to own favor. Traditional methods are not sufficient to cope with dynamic and competitive environment. Innovative and new sophisticated method should be applied otherwise one have to lag behind far away. Management accounting should be practiced in every pace of planning, controlling and decision making. For planning capital budgeting, flexible budgeting, break even analysis, linear programming (LP), tax effect analysis, activity based budgeting (ABB), zero based budgeting (ZBB) should be used. For controlling Standard costing, responsibility costing, variance analysis, budgetary control, financial statement analysis, cost benefit analysis, activity based costing (ABC)

are recommended. Similarly, Japanese Kiezen system, total quality management, management audit and bench marking also should be practiced.

- To segregation cost into fixed and variable, regression method is the most accurate and scientific statistical method. But dealers were practicing only high low method, average and analysis method. So it is recommended to apply modern technique like regression.
- While preparation of budget environmental factors are also should be considered along with past budgets, target set and historical data. Events do not always follow the historical trend so Z BB is also recommended to practice with detailed analysis of environmental factors.
- For budgeting and planning it is recommended to take help of professional experts.
- Strategic thinking and long term vision is necessary to achieve goal. Along with tactical plan, strategic plan covering more than ten years also should be planned.
- Project evaluation/capital budgeting is irreversible decision. It should be done with full information and detailed analysis. For this purpose mostly NPV should be used.
- For pricing product/services multifactor should be considered. Only cost basis is no t enough. Activity based costing, market rate, target return, marginal cost analysis etc also should be considered.
- Measure and control of overall performance should be done with multi basis. Some of the automobile dealers relying on only single factor like profit and loss and financial statement. All the relevant factors like profit and loss, budget control, variance analysis, financial statement, activity base d costing, responsibility accounting should be considered.

- For forecast/estimate the cost/revenues past trend analysis is definitely an effective tool. But future is uncertain. So environmental analysis is necessary. ZBB market survey should be done to solve the possible changes in the future.
- Availability of spare parts plays dominant role in auto business, so proper planning of fast moving spare parts is mandatory. Just in time is the philosophy that has developed to minimize waste and handling. So its application is relevant. Automobile dealers should consider multifactor. Single approach is not sufficient. All the factors like, EOQ, trend analysis, minimum stock level, inventory count, environmental factors should be considered.
- Limited resources have multi use and have opportunity cost. Overstocking makes money tied up in stock depriving from many good opportunities. So stock level should be optimum. For controlling both total value (cost approach) and quantity (space approach) should be considered. If possible the characteristics of particulars item should be identified and categorized as per ABC analysis. Then on the basis of vital few and trivial many, inventory control should be done. The maximum and minimum level determination helps to control stock with in relevant range.
- Transfer pricing should be done considering goal congruence. Negotiation and genera l transfer pricing rule is suitable but not in practice. So it is recommended to apply these techniques.
- Only few dealers representing 2 out of 5 automobile dealers are considering management accounting tools while taking account related decision. Decision should not be taken on vacuum. It should be based on detailed analysis, updated information. Decision has long term effect on destiny of organization and costly to change after put into effect.

Management accounting should be used as basis for taking major decision.

- Automobile dealers should develop trend of taking help of management consultancy/extern al expert. If possible separate management accounting management department should be established. Otherwise managers should be trained and motivated to apply modern technique of management accounting tools. Interaction between management accounting experts and automobile dealers is appreciable to reduce gap between theory and practice. Short term training-seminars and long term training will be effective to shed light on application and importance of management accounting tools.

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Appendix

Questionnaire

Yours small effort plays vital role in my research work, entitled, ***"Management Accounting Practices of automobile Dealers of Nepal"*** So you are requested to (3) the alternative answers for each question concerning your reputed organization.

1. Please specify type of ownership of your organization.

a) Sole Trading [ ]
b) Partnership [ ]
c) Joint stock
  i) Public limited [ ]
  ii) Private limited [ ]
d) Others please specify ____________________

2. Please specify which category of product does your organization deal?

a) Vehicle-Passenger Car (PC) [ ]
b) Vehicle- Commercial Vehicle (CV) [ ]
c) Spares [ ]
d) Services [ ]
e) Others, please specify ________________

3. Would you kindly specify which of the following mentioned management accounting tools are practiced in your organization?

S.N.	Management Accounting Tools	Tick mark (3)
1	Capital Budgeting	
2	Cost Segregation into Fixed and Variable	
3	Tax Effect Analysis	
4	Standard costing	
5	Break Even Analysis(BEP)/Cost-volume-profit(CVP) Analysis	
6	Ratio Analysis/ Financial Statement Analysis	
7	Master Budgeting	
8	Responsibility Accounting	
9	Activity Based Costing (ABC)	
10	Cash Flow Statement	
11	Zero Based Budgeting	
12	Lease or Buy	
13	Flexible Budgeting	

4. If your organization has not practiced any of the above mentioned tools, what might be the reason?

a) Not relevant to our organization [ ]

b) Not felt necessary yet [ ]

c) Cost factor [ ]

d) Lack of Information [ ]

e) Lack of Expertise [ ]

f) Other, If Any ____________________

5. What kind of System do you have in your organization to support managerial operation for planning, controlling and decision-making?

a) Professional Accounting Software [ ]

b) Internal IT Development System [ ]

c) Manual [ ]

d) Other, If any ____________________

6. What techniques does your organization use to segregate the mixed cost into variable and fixed?

a) High-low Point Method [ ]

b) Regression Method [ ]

c) Graphical Method [ ]

d) Average Method [ ]

e) Analysis Method [ ]

f) Other, If any ____________________

7. On what basis does your organization prepare budget?

a) Past Budget [ ]

b) Historical/Past Data [ ]

c) Zero Based Budgeting [ ]

d) Activity Based Budgeting [ ]

e) Target Set [ ]

f) Other, If any ____________________

8. What type of budget does your organization practice?

a) Overall Master Budget [ ]

b) Operational Budget Only [ ]

c) Long Term Budget [ ]

d) Annual Budget [ ]

e) Cash Budget Only [ ]

f) Other, If any ____________________

9. Who is responsible to prepare the budget in your organization?

a) Separate Budget Committee [ ]

b) Top Management [ ]

c) Planning Department [ ]

d) Departmental Managers/Incharge [ ]

e) Outside Export [ ]

f) Other, If any ____________________

10. What is the time frame of the budget prepared your organization?

a) Sort-term (One year or less) [ ]

b) Mid-term (Between One and Five Year) [ ]

c) Long term (Five year and More) [ ]

f) Other, If any ____________________

11. Which capital budget tools are used in your organization, while making long-term investment or purchasing fixed assets.

a) Payback Period (PBP) [ ]

b) Average Rate of Return (ARR) [ ]

c) Net Present Value (NPV) [ ]

d) Internal Rate of Return (IRR) [ ]

e) Profitability Index (PI) [ ]

f) Discounted Payback Period (DPBP) [ ]

g) Other, If any ____________________

12. How does your Organization measure and control the overall performance at the end of the accounting year?

a) Profit and Loss [ ]

b) Budgetary Control [ ]

c) Standard Costing [ ]

d) Financial Statement Analysis [ ]

e) Cash Flow Analysis [ ]

f) Activity Based Costing [ ]

g) Other, If any ____________________

13. Which technique does your organization practice for pricing product/services?

a) Full Cost Based Pricing (Absorption) [ ]

b) Variable Cost [ ]

c) Market Rate [ ]

d) Target Return on Investment (ROI) [ ]

e) Activity Based Costing Pricing [ ]

f) Pre-determine Commission (Percentage) [ ]

g) Other, If any ____________________

14. Which techniques does your organization practice for forecast/estimate the cost and revenues for the future?

a) Past Trend Analysis [ ]

b) Zero Based Budgeting [ ]

c) Market Survey [ ]

d) Judgmental Analysis [ ]

e) Other, If any ____________________

15. Which method is followed for pricing the issued of inventory in your organization?

a) First In First Out (FIFO) [ ]

b) Last In Last Out (LIFO) [ ]

c) Weighted Average [ ]

d) Simple Average [ ]

e) Other, If any ____________________

16. What things does your organization consider while procuring inventory?

a) Economic Order Quantity (EOQ) [ ]

b) Lead Time [ ]

c) Re-order Level [ ]

d) Consumption Rate [ ]

e) Demand-order Placed by Customer [ ]

f) Just In Time (JIT) Philosophy [ ]

g) Inventory Count [ ]

h) Other, If any ____________________

17. On what basis does your organization control inventory?

a) Total Value Basis [ ]

b) Total Quantity Basis [ ]

c) Characteristic of Particularly Item [ ]

d) ABC Analysis [ ]

e) Other, If any ____________________

18. Which transfer pricing technique is practiced in your organization?

a) Market Price Based [ ]

b) Cost Price Based [ ]

c) Target Return Based [ ]

d) Negotiation [ ]

e) General Pricing [ ]

f) Other, If any ____________________

19. Which technique does your organization practice to allocate joint (Mixed) departmental cost?

a) Sales Unit [ ]

b) Sales Revenue [ ]

c) Negotiation [ ]

f) Other, If any ____________________

20) What are the main factors, which affects to the major accounting related to decision making process in your organization?

a) Management Accounting Tools [ ]

b) Objective of Organization [ ]

c) Decision of top management [ ]

d) Advice of Vendor [ ]

e) Other, If any ____________________

21) Please specify the major difficulties for the application of Management Accounting tools and technique in your organization.

a) ____

b) ____

c) ____

d) ____

e) ____

f) ____

22) Please specify the potential benefits of Management Accounting for your organization.

a) ____

b) ____

c) ____

d) ____

e) ____

f) ____

Date : ______________________________

Name of the organization : ______________________________

Designation of the respondent : ______________________________

Signature : ______________________________