Chapter I

INTRODUCTION

1.1 Background of the Study

The cigarette industry in Nepal consists of only two units – Janakpur Cigarette Factory (JCF)and Surya Tobacco Company (STC) with a total installed production capacity of 8 Arab and 25 crore stick per annum. The former is a public sector undertaking located at Janakpur of Dhanusha District while the latter is a private one planted at Simra of Bara District.

The JCF was set-up with techno-financial assistance of Soviet union and come into operation in 2021 B.S. The authorized capital of the factory is Rs. 8 crore and the paid up capital is Rs. 4 crore 8 lakh and 37 thousand. This factory has automatic equipment and machines with a production capacity of 5 Arab and 25 crore sticks per annum which is expected to met the national demand for cigarette in full. However, the plant is currently operating at about 45 percent of the installed capacity. It employs about 1540 persons and uses a minimum of 25 percent indigenous tobacco in the manufacture of cigarettes so as to promote te tobacco cultivation in the country. The rest of the tobacco in imported from Guntur (Andhra Pradesh) of India with a view to manufacturing high quality cigarettes. In order to meet the requirements of smokers of various income groups, six brands of cigarettes of different qualities and prices. Uphar, deurali, Gaida, Lahure, yak and yak-kings are produced. These cigarettes are made available to the retailers through the factory's branches at a uniform price in every part of the country. In order to facilitate and boost up the sales, 116 branches had been set up throughout the country. But because of the negligible sales resulting from the shift of consumers to the competitor's products in some parts of the country and the Maoist insurgency, 60 branches were closed in 2050's.

As the JCF is well endowed with modern equipment and machines, experienced & skilled man-power, high quality raw materials and sufficient money (funds), it is highly expected to produce excellent operating result Until 2043 B.S.

Its working result was really very good. Mention may be made that it was the biggest taxpayer to the His Majesty's Government of Nepal until then. But thereafter its trading result has gone into a gradual decline. This indicates that the factory management has been unable to utilize the available resources efficiently. The factory management has various functional areas, such as, production, marketing, finance, personnel and so on. Though each of these areas calls for an in-depth probe for ameliorating the performance of the undertaking, the proposed study look into the fixed assets management which is one of the most important facets of the financial management of the enterprise.

The fixed assets of the JCF include land, building, machinery, furniture and fixtures, office equipment, computer, electric installation, vehicles, warn house, railway siding and other fixed assets under construction. These assets involve huge funds and are subject to depreciation which is a fixed cost and has strong bearing on the operating profit. Thus, the efficient utilization of fixed assets is a must for producing the expected result. But without an appraisal of the performance of management of fixed assets of the factory, it cannot be inferred fairly whether or not the fixed assets are utilized efficiently.

1.2 Focus of the Study

The JCF has already attained the age of 42 years. The factory was run efficiently and effectively during the first half of its age while during the second half its operation was not efficient and effective. Now it's is plagued with several problems related to production, marketing, finance, personnel and so on. Though each of these areas needs a detailed inquiry, the present study looks into the fixed assets management being one of the vital aspects of the financial management, in particular, it would focus on financing policy, depreciation policy, utilization of fixed assets and profitability of investment in fixed assets of the firm.

1.3 Statement of the Problems

As stated earlier, the cigarette industry in Nepal is constituted of only two unit's Janakpur Cigarette Factory and Surya Tobacco Company. The latter (STC) came into existence after the former had well grown up. Surprisingly, the STC has been making huge profits since its early childhood whereas the JCF since its adulthood has been either suffering from losses or earning the minimal profits reflecting inefficiency on the part of the management. The factory management has various functional areas-productions, marketing, finance, personnel and so on. Through each of these areas requires a close inquiry, the priority should be accorded to the financial one. The present study looks into the fixed assets management which is one of vital aspects of the financial management of the factory. In particular, every endeavor has been made to find out the answers to the following issues:

(a) Is the structure of fixed assets of the JCF Satisfactory?
(b) What is the amount of average annual growth / decline in gross block and fixed assets (net) of the factory during the period of analysis?
(c) Is the increase in sales through the expansion of gross block of the factory profitable?
(d) Is the owner's fund sufficient for financing the fixed assets of the factory?
(e) Is the practice of financing fixed assets of the factory sound?
(f) Is there an efficient utilization of the investment in fixed assets of the factory?
(g) Is the investment in fixed assets of the factory profitable?
(h) Is the provision for depreciation made by the factory adequate?
(i) Is there a stable policy of charging depreciation on the fixed assets of the factory?

1.4 Objectives of the Study

The main objective of the present study will be to appraise the performance of the fixed assets management of the JCF. In particular, it will aim at:

(a) Studying and assessing the structure of fixed assets of the factory.
(b) To estimate the structure of fixed assets of the factory.

(c) To measure the impact of gross block on sales and operating profit of the factory.

(d) To review and analyze the financing of fixed assets of t

(e) To provide suggestions to JCF on the basis of Study findings.

1.5 Need and Significance of the Study

The JCF is the oldest as well as largest cigarette manufacturing unit in Nepal. This adequately supports the tobacco cultivation in neighboring districts by reasonably using the local tobacco in the manufacture of cigarettes. It provides employment opportunity to a large number of people contributes significantly to tax revenue and saves a lot of scarce and valuable foreign exchange by substituting the import of cigarette. Over and above, many others are benefited in numerous ways. In order to enjoy the full advantage of the factory, its efficient operation is absolutely essential. Without appraising the workings of its management, it cannot be logically inferred whether or not it is operating efficiently. Its management has various functional areas of which the financial is a key one. As the fixed assets management is one of the important aspects of the financial management, the need and importance of this study cannot be over –emphasized.

The present study will make a close inquiry into the fixed assets of the factory. In particular, it will assess the structure of fixed assets, analyze the depreciation provisions, estimate the average annual growth of fixed assets measures the impact of gross block on sales and operating profit, evaluate the efficiency in the use of fixed assets and review the financing of fixed assets of the factory. In addition, the remedial measures will also be suggested on the basis of the findings of the study. Thus, the study will assume utmost importance to the owners as well as the management of the factory. On the one hand, it would enable the owners to judge the efficiency and effectiveness of the management while on the other the management would be made aware of the weaknesses and provided with the necessary remedial measures to be adopted.

1.6 Limitations of the Study

Although the present study will be made for partial fulfillment of the requirement for the degree of master of business studies, it will be of considerable use to the management as well as the owners of the factory. But the users of the study must be acquainted with the limitations from which it suffers. Its main limitations will be as follows:

(a) The cigarette industry in Nepal presently consists of only two units- JCF and STC. The evaluation of the performance of the industry as well as the individual units would be more useful for practical purposes. But the present study will be confined to the appraisal of the working of the JCF only due to the denial of the concerned authority of the STC to provide relevant information.

(b) The JCF has been producing disappointing working results for years reflecting inefficiency on the part of the management. There are various functional areas of the factory management, production, marketing, finance, personnel and so on. Through each of these areas needs to be evaluated, the present study has been confined to the evaluation of the performance of the fixed assets management only taking into account time, cost and academic level and so on.

(c) For making logical and meaningful interpretations, it would be more appropriate to compare the actual ratios of the factory with those of the industry to which it belongs. But in the present study the inferences have been drawn comparing the actual ratios with the absolute and historical standards, as the industry ratios could not be reckoned due to non-availability of the required data pertaining to the other unit under the industry.

(d) The present study undoubtedly makes use of appropriate techniques in analysis of the relevant facts and figures. The analyzed facts have also been interpreted reasonably. After all, the reliability of the findings of the study largely depends upon the correctness of the data and information made available by the factory management.

(e) The present study makes generalization about the performance of the fixed assets management of the factory on the basis of the data covered by the period of analysis from 2054/055 to 2063/064 only. Thus, it is expected that none would take it otherwise.

1.7 Organization of the Study

The present study has been divided into the following five chapters:

1. Introduction: This chapter includes a general introduction of the subject matter covering back ground of the study, focus of the study, statement of the problems, objectives of the study, significance of the study and Limitations of the study.
2. Review of Literature: This chapter includes the conceptual literature on the subject and related studies have been reviewed making logical and meaningful grouping.
3. Research Methodology: This chapter frames the research methodology consisting of research design population and sample, nature and sources of data, data collection techniques and data analysis tools adopted in carrying out the study.
4. Data presentation Analysis: This chapter includes the data presentation and analysis with the help of financial and statistical tools with a view to draw major findings included in the last part.
5. Summary, Conclusion and Recommendations: This chapter includes summary conclusion and recommendations about the performance of Fixed Assets Management of the Factory.

Chapter II

REVIEW OF LITERATURE

Introduction

In the previous chapter a general introduction of the cigarette industry in Nepal with special reference to the JCF was given. This chapter reviews the available literature on the fixed assets management. It is subdivided into two sections. The first section deals with the theoretical aspect of fixed assets management. In the second section, the relevant studies on the fixed assets management are reviewed.

2.1 Conceptual / Theoretical Review

In this section an attempt has been made to review the theoretical aspect of fixed assets management with a view to forming a sound conceptual background for the study. It covers meaning and concept of fixed assets, importance of investment in fixed assets, distinctive aspects of the investment in fixed assets, funds flow related to ownership of fixed assets, objectives and importance of fixes assets management, replacement analysis of fixed assets, investment outside business, valuation of fixed assets, determinants of fixed assets and provisions for depreciation.

2.1.1 Meaning and Concept of Fixed Assets.

The term 'Fixed Assets Management' consists of three words, i.e. fixed assets and management. Fixed is known as something that is permanent in nature. Assets are valuable resources that generate profit. And, management is known as managing something tactfully. In this sense, fixed assets management is managing fixed assets tactfully. In fact, it is optimum utilization of fixed assets that generates maximum benefit.

Fixed assets are the assets of a relatively permanent nature, used in the operation of a business undertaking, since production would be impossible without them[1]. With the help of these assets raw material is converted into finished product. Essentially, fixed assets, such as, land and buildings, plants and machinery are incidental to production used over a considerable period of time, and are not meant for sale[2]. These assets are consumed slowly in

the production process and are replaced periodically. Fixed assets are collectively known as Block.

The types of business assets which are typically held for longer period of time than one year, fall into the general category of long term assets but are often described by the term fixed assets, long-lived assets or non-current assets[3].

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1. Lawrence J. Citman, "Principles of Managerial Finance," Harper and Row publishers, New York, 1982, P. 381.

2. S.B. Chowdary, "Analysis of Company Financial Statements", Asia Publishing House, Bombay, 1964, P. 31.

3. Paul H. Walgenbach and Norman E. Dittrich, "Accounting: An Introduction", Harcourt brace Javanovich, inc, New York, 1973, P. 271.

Management of fixed assets is essential as fixed assets covert working capital into finished products. In particular,, the long term investors are more concentrated on fixed assets condition of an enterprise, as it influences the shareholder's wealth, the size of business, the pace and direction of growth of the enterprise and its risk complexion. In the long run success of the enterprise is determined by the effectiveness in the management of such assets. A great deal of attention has, therefore, to be paid to the management of these assets for the survival and growth of the enterprise. In the long run, the success of enterprise is determined by the

effectiveness with which management commits resources to fixed assets in amount, type and timing[4].

The important aspects of fixed assets management are:

a. Replacement: Replacement is the very crucial aspect of fixed assets management. The management committee has to take decision whether to produce with existing machine or to buy a new machine. It includes proper calculation. Capital budgeting is a technique which helps in this calculation. Cash flow should be discounted to present while comparing both the machines.

b. Expansion: Expansion is another aspect of fixed assets management. Whether to expand the enterprise or not is a crucial decision. Generally expansion of enterprise occurs when the enterprise can not fulfill the demand of customers with the existing capacity. The management should critically think whether the increasing demand of customers can be fulfilled by operating at full capacity or another plants to be set up.

c. Improvement of product: Improvement of product is necessary to exist in this cut-throat competition. New technology is to be applied to improve the product and also affect the profitability of the firm. If improvement of product reduces the profitability of the firm, it is not desirable to purse improvement of product.

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4. Earnest W. Walker and William H. Baughm, "Financial Planning and Policy", Harper and Bothers Publishers, New York, 1961, P. 123.

In addition to above mentioned aspects, other some aspects related to fixed assets management are.

d. Strategic investment on fixed assets.

e. Rearrangement of fixed assets.

f. Repair and maintenance.

There are, however, two concepts of fixed assets. First, fixed assets refer to only those assets of relatively permanent nature which have physical entity and can be seen or touched. These

are called tangible fixed assets which include land and buildings, plant and machinery, furniture and fixtures, office equipments, and so on. Second, fixed assets designate to all those assets which are not current. Misunderstanding May, however, arises de to these concepts of fixed assets while analyzing the performance of the management of such assets. Mayer, therefore, advises to use the term non-current assets instead of fixed assets in the ration under consideration in order to indicate that all non-current items are included in the comparison with capital[5].

Fixed assets are not trading assets and the concern does not deal in them. The amount invested in them is more or less permanently blocked or sunk. As such, fixed assets symbolize slow moving investment. They produce income indirectly through their use in operation. Occasionally, they may be disposed off, due to wear and tear, obsolescence, etc.

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5. John N. Myer, "Financial Statement Analysis", Prentice Hall of India P. Ltd.,New Delhi, 1974, P. 185.

Fixed assets utilize working capital s service assets. They make circulation of current assets possible. But, working capital also helps to maintain the fixed assets. Hence, it is clear that fixed assets and current assets are inter-related as both contribute to the earning power of the enterprise.

Benefit is derived from the use of fixed assets over a long period. Only one year's sales are not the result of these fixed assets. In other words, exhaustion of fixed assets in the form of sales is a matter of long-term. Thus, it can be said that fixed assets are realized gradually form sales that are made during the serviceable life of the asset.

2.1.2. Types of Fixed Assets :

Fixed assets fall into two general groups. Tangible and intangible. An asset is tangible if it has bodily substance like machinery, land, building, tools and equipment, furniture and fixtures etc. these are those assets which we can see and touch. Intangible assets are neither physical goods nor evidence of property. We can not see and touch these assets. Goodwill, patents, trade marks, legal rights, copyrights, etc. are the usual examples of intangible assets.

Most of the accountants classified fixed assets as intangible fixed assets and tangible fixed assets. But Dr, A.N. Agrawala does not share this view. In his opinion, it is not justified to class intangible fixed assets with fixed assets. Intangible assets do not, like tangible fixed assets, necessarily lose their value by wear and tear or efflux ion of time nor do they have to be replaced. They are also not depreciated on the same principles as tangible fixed assets. This shows an organic difference between intangible them and tangible fixed assets. Moreover, it is not necessary that intangible assets always help the company in earning profits. A company incurring loses year after year may show goodwill at an enormous figure but its goodwill is not being used to earn profit. Likewise if patent rights have become almost worthless on account of some other better patents, it cannot be said that a company is using patent rights to earn profits because it is not. In other words, intangible assets differ from tangible fixed assets because they do not have to be replaced, and they do not lose value by wear and tear or efflux ion of time, and they are not always used to earn profit.

Some of the authors have also treated fixed investments as fixed assets. According to them providing loans to and holding of shares and debentures of subsidiary and allied enterprises are fixed assets. The parts of an enterprise's investments in securities which are of relatively permanent nature are also fixed assets[6].

2.1.3. Importance of the Investment in Fixed Assets.

As we know, it is the fixed assets which convert input into output. Thus, is investment in fixed assets is very important. There are number of factors which influence the investment in fixed assets. The technology of the industry in which a company operates largely determines the quality of funds it must commit t fixed assets. While other factors influence the investment of individual firms in fixed assets, firms in the same industry generally tend to have a similar portion of their total assets in fixed assets[7].

Another determinant of the fixed asset investment of the firm having limited financial resources is the need for facilities. Such firms can avoid highly specialized and expensive equipment through subcontracting of work or outside purchase of parts and components requiring special equipment. One of the less widely recognized strengths of American industry lies in the extent to which finished product manufacturers can rely on specialized manufacturers for particular parts or components. By virtue of their large volume as suppliers of their specialty items too many end-item manufacturers, these specially manufacturers can

make economic use of highly specialized and expensive equipment that would be burdensome if production of these items were widely diffused.

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6. Charles L. Prather, ”Financing Business Firms” Richard D. Irwin, Inc., Homewood, I llinois, 1959 P. 121.

7. Pearson Hunt et. All, “ Basic Business Finance,” Richrd D. Irwin, Inc., Homewood, IIIinois, 1971, P. 87.

The requirement of investment in fixed assets can be reduced by buying used equipment or old plant. Used equipments are available at prices that are far below those of new equipments. This condition applies where the rate of technological change in production methods has been moderate or slow.

2.1.4. Distinctive Aspects of the Investment in Fixed Assets

Certain distinctive aspects of investment in fixed assets make it especially important that new fixed assets be acquired only after searching consideration of the impact on investment return[8].

Firms have to invest huge amounts in fixed assets and any misleading decisions regarding investment can lead the firm towards it’s closure. Hence proposed additions to fixed assets should be considered deliberately and consciously as discrete proposals. Planning regarding acquisition of new fixed assets should be dined far ahead so that analysis of their desirability can be deliberate and appropriately organized.

Another important matter is the purchase of plant and equipment (or their long term lease) will bind the company over a period of years. If there is unnecessary investment in inventory, receivables or liquid reserves, management can act to cut these investments and free the funds involved in a matter of weeks or months. But the investment in fixed assets can be covered only through operations over a period of years. Not only is this so much uncertainty of return as well as time involved. Similarly, the loss in forced sale of excess or obsolete equipment and facilities typically is great.

8. **Ibid, P. 99.**

2.1.5. Funds Flows related to ownership of Fixed Assets.

In planning the outflows related to the acquisition of fixed assets, care should be taken to schedule the outflows in payment for the assets as they actually will be made, since their timing may differ materially from the time at which ownership of the assets is reflected in the accounting records of the firm[9]. Depreciation is non cash expenses. Funds inflows from operation are not reduced due to the treatment of depreciation as non cash expenses. Provision of reducing depreciation form taxable income has a significant effect on the timing of outflows required to satisfy income tax liabilities.

Pattern of deducting allowable depreciation affects firm's depreciation tax shield and hence the timing its outflows for taxes.

In a period of rising costs, the tax free recovery through operations of the original cost of fixed assets will not supply a sufficient inflow of funds to pay for replacement of the assets. Additional funds are required to match the excess of replacement over original fixed asset costs to maintain constant level of physical facilities over a long period of rising costs.

2.1.6. Objective and Importance of Fixed Assets Management.

The main object of fixed assets management is to acquire, replace and dispose fixed assets of an enterprise in such a way that a minimum level of risk, the sales and profitability of the enterprise shall increase leading to maximizing its shareholder's wealth.

As we know, the objective of fixed assets management is to maximize shareholder's wealth; the importance of fixed assets management is significant. Fixed assets have far reaching impact on the sales, profitability and risk complexion of the enterprise. Mismanagement of these assets may endanger the survival of the enterprise.

9. **Ibid, P. 99.**

Fixed assets involve huge amount of investment. As a result, any decision regarding fixed assets needs careful analysis and serious consideration of each and every aspect of the decision's repercussions. Fixed assets decisions are irreversible. Once such decisions are taken, they can not be taken back, without bearing a substantial amount of loss, as murder for second hand assets are not easily available, and even if they available, desirable price for these assets can not be obtained.

Although creditors focus more on working capital section of the balance sheet than fixed assets section, fixed assets require careful study. Even the banker making term loans repayable over a period of years finds his interest in the fixed assets increasing[10].

2.1.7 Replacement Analysis of Fixed Assets.

Replacement analysis is very much important aspect of fixed assets management. It is very difficult to take decision regarding replacement equipment. Surveys[11] show that modern techniques for appraising replacement investment are not used.

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10 Harry G. Guthmann, "Analysis of Finacncial Statements", prentice Hall of India Pvt. Ltd., New Delhi 1976, P.125.

11. R.R. Neild, "Rep;acement policy", National institute Economic Review, number 30 (1965),H.H. Scholefield, 'Replacement of Equipment', Accounting and Business Research, number 8 (Autumn). PP. 316.24.

A survey offered the following conclusions[12].

(i) In the majority of cases replacement is viewed like any other capital-budgeting decision. Whatever criterion of assessment is used the result is then compared with a hurdle and accepted or rejected on that basis.

(ii) Payback and accounting rate of return are used, except on large projects where DCF (Discounted cash flow) is employed. In the case of the first two, the method, of calculation is very often erroneous.

(iii)Taxation, and investment incentives, are seldom considered except on large projects.

(iv)Little use is made of the more up-to-date replacement assessment techniques.

(v) Consideration of the alternatives of leasing or purchasing second hand equipment are seldom taken into account.

(vi)Cost savings in over 50 percent of the interviewed firms were treated as constant over the life of the equipment.

(vii) No account was taken of price and wage initiation.

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12. Julian R. Franks, and scholefield, Harry H., Corporate "Financial Management", Gower Press Ltd., Britain, 1974, P. 154

2.1.8. Investment Outside Business.

One of the major categories of assets are long-term investment. The funds can be invested (i) in fixed deposits (ii) government bonds and securities (iii) and in federal bodies, constituent members, subsidiary organizations, financing agencies, etc. the need to investment funds of a business firm outside the business arises because of the following reasons[13].

(i) Presence of trust funds.

(ii) Legal requirements; statutory reserve fund in co-operative societies is to be invested outside the business.

(iii)Surplus funds, temporary or otherwise.

(iv)To earn goodwill and maintain good public relations.

(v) Traditions and customs in the business.

2.1.9 Valuation of Fixed Assets

Valuation of assets / fixed assets is very much important. If the various assets / fixed assets are not shown in the balance sheet at their proper values, The correct profit or loss of the undertaking can not be ascertained. The valuation of the assets / fixed assets depends upon the nature of the assets / fixed assets.

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13. S.B. Rao, "Financial Management", Vikas publishing House Pvt. Ltd., New Delhi year P. 90.

Valuation of some important fixed assets is described below.

i. **Goodwill:** it is an intangible fixed assets. Normally goodwill does not figure on the assets side of balance sheet. But when an established business has been purchased and payment has been made for goodwill, goodwill appears in the balance sheet as an asset at its cost. When it is written off against profits of any particular year, the amount so written off is deducted from the amount of goodwill in the balance sheet. It has, however, to be remembered that the amount of goodwill should in no case be increased even if it is felt that the goodwill of the company has substantially gone up.

ii. **Land and Buildings:** Land does not depreciate and fluctuations in its value are ignored. It is, therefore, shown in the balance sheet at cost. But buildings depreciate, and are, therefore, shown in balance sheet at book value minus. The amount of depreciation, repairs are charged to profit and loss account, but if there are any structural alterations or additions which tend to increase the earning capacity of the asset, they are capitalized by debiting the building account.

iii. **Plant and Machinery**: This asset is also shown at its book value at the beginning of the financial year after deducting depreciation therefore additions or improvements are added to the cost and are separately shown, but repairs and minor renewals are charged to profit and loss account.

iv. **Patents:** They are shown at cost. But the cost has to be written off during the course of the life of the patents. When a patent becomes valueless due to obsolescence, its value is written off, and it may be done even before the expiry of its life. If the value of a patent happens to be considerable, it may be advisable to periodically revalue it, but in no case should its value be increased even if its value exceeds the book value.

v. **Loose tools:** At each time of stock taking loose tools are revalued by a responsible officer. The difference between the ascertained value and the book value is written off as depreciation.

vi. **Investments:** While valuing investment, the best policy is to write down investments to their market value. Temporary market fluctuations may, however, be ignored. It is generally agreed that the basis adopted for valuing the investments should be clearly stated in the balance sheet. It is also considered advisable to divide investments into suitable classes according to their nature. When the market price of any investment goes down, usually loss is debited to depreciation account ad credited to investment fluctuations account, and the balance of investment fluctuations account is shown as a deduction from investments in the balance sheet.

There are generally four different methods of the valuation of the fixed assets. They are historical cost, present value, replacement cost and net realizable / market value methods.

Fixed assets are generally valued on historical cost basis for balance sheet purposes. Fixed assets are valued by deducting depreciation or depletion charges from the original cost of the assets. Original cost or the assets. Original cost or acquisition cost includes all expenditures made while acquisition cost includes all expenditures made while acquiring and preparing them for use in operations. The acquisition and preparing them for use in operations. The acquisition cost of all long-lived assets is their cash equivalent price, including incidental costs[14]. Incidental costs include transportation cost, installation cost etc.

14.Charles T. Horngren, Introduction of Financial Accounting, Prentice Hall, Inc., New Jercy, 1984, P.370.

This method of valuation provides a uniform and objective basis for valuation provides a uniform and objective basis for valuation, even though its usefulness in measuring financial position after a period of violent change in the price level is open to question[15]

The valuation method which is associated with the future earnings of fixed assets is present value of economic value method. This method is usually applied to fixes assets for internal management purpose rather then external reporting purpose. The current value of fixed assets is defined as the present value of the sum of the future expected net cash flows associated with the use of the assets.

In this method, the time value of money is considered. The prices of adjusting face value of future cash flows to their present value in completed by means of anticipated interest rate. Interest rate is also known as discounting rate. The basic assumption of this method is that the money received today is more valuable than the money receivable in future because money received today can be reinvested to earn additional amount of profit. In practice, however, it is extremely difficult to carry out this type of exercise because of the problems involved in the assessment of timing and the amount of future cash flows, and the level of interest rates[16].

The fixed assets valuation method which has something to do with the replacement value of such assets is the replacement cost method. This method has been suggested to value fixed assets under inflation in any conditions in which the historical cost for fixed assets greatly vary with the replacement cost of these assets.

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15 . Harry G. Guthmann, OP. cit. P.

16. Patrick R.A. kirkman, "Accounting under inflationary Conditions", George Allen and Unwing, London, 1978,P.77.

Since fixed assets are replaced when they are totally used, worn out or obsolete, the replacement cost method of assessing the value of fixed assets appears to be realistic. The replacement cost of fixed assets is the current cost of acquiring another assets which will be put to the same use by the enterprise. In this method, therefore, the historical cost of fixed assets is adjusted with a price index of that particular asset. The use of price index numbers for assets. Adjustment purpose has the effect of adjusting historical cost to current costs, but it is not that easy to find out price index numbers for each and every item of fixed assets.

The basis of net realizable / market value method of assessing the value of fixed assets is the selling price of such assets. According to this method, fixed assets are normally valued at their estimated sale price at the date of balance sheet less all the costs that have to be incurred in realizing the proceeds. Realization is generally assumed to take place in an orderly way, and not as part of massive liquidation of the whole enterprise. Although this method seems logical, there may be a number of practical problems to be faced by the enterprise in the adoption of this method. The main problem, among others may arise in the determination of second hand selling price for fixed assets, since the use of index numbers will probably not be practicable in any assessment of realization values.

2.1.10. Financing of Fixed Assets

Every organization needs fixed assets to carry out their productive activities. Level of fixed assets varies from enterprise to enterprise. It depends on different things like nature

of business, size of business, adoption of technology etc. Financing of fixed assets is one of the important aspects of fixed assets management. It is one of the major decision of the enterprise to decide how much capital to be invested in fixed assets as well as low it make the judicious mix of different types of sources for financing them. There should be optimum investment in fixed assets. Over for under investment in fixed assets may lead the enterprise towards failure. Management should pay much attention towards the financing of fixed assets.

2.1.10.1 Determinants of Fixed Assets

The investments in fixed assets involve commitment of funds for longer periods into the future and usually are difficult and costly to reverse often they are in large increments. Decision regarding investment in fixed assets has far reaching impact in the success or failure of the enterprise. Once these assets are acquired, they can not be disposed of except at a substantial loss. If assets are purchased on a long period of time. If increased earnings do not result from the purchase of the additional assets, the ability of the company to discharge its financial obligation may be affected adversely. Hence, it is quite clear that the decision regarding investment in fixed assets is a matter of great deliberation and proper planning; because of involvement for longer period of time. Thus the fixed assets affect the profitability and riskiness of the organization.

The process of planning and forecasting involves four basic steps (a) the economic forecast (b) the sales forecast (c) the production forecast (d) and financial forecast. The process of financial forecasting and planning ties together the other three estimates – economic, sales and production. The essential components of a long-range financial plan consist of the following statements (i) projected income statement; (ii) projected balance sheet; (iii) statement showing sources and uses of fund; (iv) capital expenditure program. Except above considerations, management should consider the following determinants while making investment infixed assets:

1. **Nature of Business**: Nature of business largely determines the amount of capital to be invested in fixed assets. For example, railways and other transport enterprises, utility enterprises such as electricity and drinking water, mining

enterprises and the like require heavy investment in fixed assets. While trading enterprises require less fixed assets even than manufacturing enterprises.

2. **Size of Business:** Large and medium enterprises require more fixed assets than small and cottage enterprises. Hence, the size of business influences the investment in fixed assets.

3. **Labor-Capital Intensive:** Labor intensive enterprise needs less fixed assets than capital intensive enterprise. In the labor intensive enterprise most of the works are performed manually and in the capital intensive enterprise, most of the works are performed with the help of machine and equipments. For example, cigarette industry is the capital intensive enterprise while agro-based enterprise is the labour intensive enterprise.

4. **Nature of Output:** Nature of output also determines amount of capital to be invested in fixed assets. For example, salt producing enterprise requires fewer amounts of fixed assets because large sum is to be invested in labor.

5. **Growth and Expansion**: The quantum of fixed assets is also determined by the growth and expansion of the enterprise. If the enterprise plans to growth and expand its activities, the requirement of fixed assets is automatically high.

6. **Preliminary Expenses:** preliminary expenses are the expenses incurred in connection with the incorporation of a company and yield deferred benefits. They are usually written off in a number of years. Preliminary expenses have also significant bearing on the level of fixed assets. Hence, it is proved that level of fixed assets depends on number of things. These all things will be carefully planned before investing in fixed assets.

2.1.10.2 Sources of Financing

Investment in fixed assets is long term financing and it is a well-known maxim that the long term financing should be met out of long-term sources and that short-term sources should not be utilized for meeting long-term needs. All fixed assets are blocked for a long period. Hence they are known as block capital. For block capital the funds have to be obtained from long term sources whether from share capital of by borrowing or by both. Not only this, the management of the enterprise has to decide a judicious mix of various types of

sources which will maximize the shareholder's wealth and minimize the risk complexion of the enterprise.

A company should raise a proportion of the total funds by way of loans or debentures or preference shares and the rest by equity shares but the exact limit will depend on the type of industry or industries in which it engaged[17].

The following are the sources of financing of fixed assets :]

(i) Equity Shares: Equity shares are one of prime sources of financing. Equity shares represent the ownership position in the enterprise. The equity shareholders are the legal owners of the company. Equity / ordinary shares are the source of permanent capital since they do not have maturity date. For the capital contributed by equity shareholders by purchasing shares, they are entitled for dividends. The amount or the date of dividend is not fixed; it is decided by the board of directors. In the public enterprises, the government has wholly or partly ownership on the equity shares.

(ii) Preference Shares: According to sec. 2(k) of company act 2063 preference shares are those shares which carry preferential right to receive dividend every year and refund of capital at the time of winding up before any amount given to ordinary shares. Preference share is often considered to be hybrid security since it has many features of both ordinary shares and debenture.

Preference dividend does not have the advantage of interest because it will not be treated as an expense by income tax authorities; preference dividend must come out of after tax profits. Therefore, when funds are raised by way of preference shares, the advantage to the company, rather the equity shareholders, is not much.

17.N.L. Hingorani, A.R. Ramanathan and T.S. Grewal, "Management Accounting", Sultan Chand and Sons, New Delhi, 1977, P.446.

(iii)Debentures: A debenture is long term promissory note for raising long loan capital. The firm promises to pay interest and principal as stipulated. The purchasers of debentures are called debenture holders. An alternative form of debenture in India is bond. Bonds are issued mostly by the public sector companies in India. In the U.S.A. the term debenture is used, it generally means unsecured bond.

Debentures are invariably secured by a floating charge on the assets of the company. This liability involves a commitment of a certain cash outflow annually both in the form of interest and sinking fund.

Convertible debenture is an attractive form of investment as it provides a double incentive of the investor, i.e., a fixed interest so long as the company passes through the gestation period and higher dividends once the enterprise starts earning profits. The debenture holder is given the option to convert the same into equity shares subsequently.

(iv)Warrants: A warrant entitles the purchaser to buy a fixed number of ordinary shares at a particular price during a specified time period. Warrants are generally issued along with debentures issue as "sweeteners". In the U.S.A., warrants have been used in the past mainly by financially weaker firms to attract investors[18].

Now, of course, warrants are used by large profitable companies as a part of major financing package. Warrants may also be used in conjunction with ordinary or preference shares.

(v) Retained Earnings: Retained earnings are also one of the important sources of financing fixed assets. The enterprises are expected to generate adequate profits and surplus so as to replace and renew their fixed assets.

18.I.M. Pandey, "Financial Management", Vikas Publishing House Pvt. Ltd., New Delhi, 1995,P.933

(vi) Capital Markets: Capital markets deal in securities. Generally, private enterprises raise funds from capital markets without prior approval of the government.

2.10.3. Leasing

Sometimes leasing of equipment is more advantageous than outright purchase. Leasing avoids payment of full amount of the value of the equipment in one installment. However the real effect of cash flow in the case of leasing and outright purchase and mortgaging the equipment to raise the required funds is identical. Quality of earnings deteriorates by the obligation to pay fixed amount in both the cases.

The entire payment of lease amount is allowed as a deduction for the purpose of calculation of incidence of income tax. Similarly, the leased equipment could be returned to the owner when the new and economical equipment is available in the market or when project proves unprofitable. But for a long period, debase is more costly.

2.1.11 Provision For Depreciation

Depreciation is the loss or diminution in the value of the assets consequent upon wear and tear, obsolescence, efflux ion of time or permanent fall in market value. There are different methods, diminishing balance method; insurance policy method etc. which method of charging depreciation is followed depends on management discretion.

While deciding the methods of depreciation, the management must consider the tax implication. The management should also consider its impact on dividend distribution. If the management chooses straight line method the distributable surplus in the earlier years would be heavy. This would enable the management to declare dividends more easily than if they follow the diminishing balance method, when the surplus will be comparatively less. Similarly, if depreciation is based on historical cost, adequate funds can not be collected to replace the assets at the end of its life. This objective could be met if depreciation is calculated on the estimated replacement cost of the asset.

The following are the rate of depreciating generally adopted, though, it is quite possible that special circumstances may make them higher or lower [19].

Rerrhold land and building, 1%- 3% P.a.

Freehold land and building, written of over the period of the lease.

Plant and machinery, 5%- 25% P.a.

Van and motor lorries etc, 10%- 25% P.a.

Patents (life 16 years), 1/16 of original cost each year.

Furnitufre, fixtures and fittings, 2 ½ % 7 ½ % P.a.

Engines (movable), 10%; fixed 7 ½ % P.a.

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19. Douglas Garbutt, Carte's "Advanced Accounts", Pitman Publishing, Lindon, P. 0623.

2.2 Review of Related Studies

In this section an effort has been made to review the related studies with a view to forming an empirical background for study. The studies reviewed are as follows:

The JCF, the oldest and largest cigarette manufacturing unit in Nepal, has been suffering from a lot of problems related to production, marketing, personnel and finance since its adulthood. But it is surprising that until now not even a single study has been made on the perpetual problems confronting the factory. However, some thesis was found to have been submitted by master's degree students to the faculty of management, T.U. here an attempt has been made to review briefly the related thesis:

Neelam Dhungana made a study on the topic entitled "Fixed Assets Management in the Manufacturing Public Enterprises of Nepal" in 2049 B.S/ this study we based mainly on the secondary data obtained from the financial statements and official records of the factories. The financial techniques like ratio analysis and trend analysis were used for analyzing the fixed assets. In addition, the statistical tools like average, and index number were also applied

to make the analysis more scientific and useful. The major findings of the study were an excessive investment in fixed assets, an inefficient utilization of dixed assets, an excessive provision for depreciation, an unprofitable investment in fixed assets and a sound financing practice of fixed assets.

Research Gap

Mention may be made that no study was made on the fixed assets management of the JCF to see whether the existing problems were resolved by adopting the proper remedial measures. Hence, there is a great need for a study on the fixed assets management of the factory.

Chapter III

RESEARCH METHODOLOGY

The present study probes into the fixed assets management of the JCF which is on of the most important aspects of the financial management. The methodology applied in conducting the study consists of research design, population and sample, nature and source of data, data collection techniques, and data analysis tools.

3.1 Research Design The present study is obviously a case study of the JCF. It makes an intensive investigation into the fixed assets management of the factory for obtaining a complete and accurate description of the existing situation. It involves the systematic collection and presentation of data to give a clear picture of the financial management of the undertaking. Thus, a descriptive and analytical research design has been adopted in carrying out the study.

3.2 Population and Sample.

At present there are only two cigarette manufacturing units in Nepal- JCF and STC which form the population for the study. The former is a public enterprise while the latter is a private one. The selection of any one of these enterprises cannot fairly represent the characteristics of the entire population. Hence, it is necessary to make the study of the total population. However, the question of population and sample does not arise, as the present study is a case study is a case study of the JCF.

3.3 Sources of Data

The present study is based mainly on secondary data. The sources of secondary data are both internal and external. The internal secondary data include the data available in financial statements and unpublished official records of the JCF. The external secondary data include the data available in books, periodicals, unpublished official records of the government organizations and published and unpublished reports.

3.4 Data Collection Technique

After receiving a letter of introduction from the campus, an exhaustive list of required data and information was prepared. The data needed for the appraisal of fixed assets management of the JCF were obtained directly from the registered head office of the factory at Janakpur. The supplementary data and information will be obtained from the unpublished official records of the office of the Registrar of Companies, the reports of the Comptroller and Auditor General of Nepal and the previous Studies related to this aspect.

3.5 Data Analysis Tools

The Financial techniques like ratio analysis and trend analysis form the main tools for the purpose of analyzing financial facts in the present study. In addition, the statistical tools like percentage, average, range, standard deviation, correlation, regression and index number have been also be applied in order to make the analysis more systematic, scientific and useful. Besides these, graphs have also been constructed to give a much more vivid picture of he trends and relationships of the financial facts under consideration.

Chapter IV

PRESENTATION AND ANALYSIS OF DATA

In the previous chapter, the research methodology adopted in carrying out the study was framed. This chapter presents the relevant data meaningfully in the forms of tables and graphs and analyses them with the aid of financial and statistical tools for fulfillment of the stated objectives. In particular, it assesses the structure of fixed assets, estimates the average annual growth of fixed assets, measures impact of gross block on sales and operation profit, reviews the financing of fixes assets, evaluates the efficiency in the use of fixed assets, and analyses the depreciation provisions of the JCF in pages to follow:

4.1 Structure of Fixed Assets

In the structure of fixed assets, the magnitude and trend in proportion of gross block and assets(net) and their components to the total assets has been studied.

The structure of fixed assets shows whether the enterprise is fixed capital intensive or working capital intensive. Fixed capital intensive enterprises are those where portion of fixed assets are high. In working capital intensive enterprise, working capital is more required instead of fixed capital. The nature of production process determines the capital intensiveness of the enterprise. The more the enterprise is capital intensive the less would be the requirement of working capital. For example, in a manufacturing enterprise the requirement of fixed assets is very high while in service enterprise the requirement of fixed assets is low. Another important thing is that the size of fixed assets should be optimum. If excess capital is invested in fixed assets, it will reduce the liquidity position of the enterprise and ultimately reduce the profitability of the enterprise.

If the percentage of gross block to total assets or net fixed assets to total assets is high, the enterprise has high degree of investment in fixed assets. And if the percentage of gross block to total assets or net fixed assets to total assets is low, the enterprise has low degree of investment in fixed assets. Table 4.1 shows the structure of fixed assets of JCF during the period 2054/2055 to 2063/2064.

Table 4.1

Percentage of Gross Block, Accumulated Depreciation and Net Fixed assets to Total Gross Assets of JCF during 2054/2055 to 2063/2064

(In Percent)

Year	Gross Block	Accumulated Depreciation	Net Fixed Assets
Reference	1	2	1.2
2054/2055	24.26	16.70	7.56
2055/2056	25.25	17.70	7.55
2056/2057	30.30	18.82	11.48
2057/2058	30.13	19.81	10.32
2058/2059	33.34	22.91	1043
2059/2060	33.89	23.76	10.13
2060/2061	33.31	24.16	9.15
2061/2062	31.41	23.55	7.86
2062/2063	32.67	24.96	7.71
2063/2064	31.44	24.86	6.58

Average(X)	30.6	21.72	8.88

[Source : Appendix 4]

The percentage of gross block to total assets, as shown in table. 4.1.registered a fluctuating trend during the period of study. It varied from 24.26 percent in 2054/55 to 33.89 percent in 2059/60 constituting a range of 9.63. During the first three years it continuously increased as a result of successive increases in gross block as against decreases in total assets and went up from 24.26 percent in 2054/55 to 30.30 percent in 2056/57. It decreased slightly to 30.13 percent in 2057/58 due to an increase in gross block at a lower rate as compared with total assets. In 2058/59 it again increased to 33.34 percent resulting from an increase in gross block as against a decrease in total assets. It further went up in 2059/60 to 33.89 percent which was the highest during the period of study. In 2060/61 it decreased to 33.31 percent due to an increase in gross block at a lower rate in comparison to total assets. It further stepped down to 31.41 percent in 2061/62 owing to an increase in gross block at a lower rate as compared to total assets. In 2062/63 it improved to 32.67 percent as a result of an increase in gross block as against a decrease in total assets. In 2063/64 it decreased slightly to 31.44 percent because of an increase in gross block at a lower rate as compared to total assets. During the first four years it was below the average percentage (i.e.30.6) while it was above during the last six years of the study.

The percentage of accumulated depreciation to total assets of the factory marked an increasing trend during the period of study except in 2061/62 and 2063/64. It recorded a range of 8.26 varying from 16.70 percent in 2054/55 to 24.96 percent in 2062/2063. During the first seven years it continuously increased as a result of successive increases in accumulated depreciation as against decreases in total assets except in 2057/58, 2059/60 and 2060/61. It decreased slightly to 23.55 percent in 2061/62 due to an increase in accumulated depreciation at a lower rate as compared with total assets. In 2062/63 it increased to 24.96 percent which was the highest during the period of study resulting from an increase in accumulated against a decrease in total assets. It decreased slightly to 24.86 percent in 2063/64 owing to an increase in accumulated depreciation at a lower rate in comparison to total assets. During the4 first

four years it was lower than the average4 percentage (i.e.21.72) whereas it was higher during last six years of study.

The net fixed assets to total assets percentage of the factory recorded an indefinite trend during the first five years and a declining trend during the last five years of study. It varied from 6.58 percent in 2063/64 to 11.48 percent in 2056/57 recording a range of 4.90. It x decreased slightly from 7.56 percent in 2054/55 to 7.55 percent in 2055/56 but increased sharply in 2056/57 to 11.48 percent which was the highest during the period of study resulting from a substantial increase in net fixed assets as against a decrease in total assets. In 2057/58 it deceased to 10.32 percent due to a decrease in net fixed assets as against an increase in total assets. It increased slightly to 10.43 percent in 2058/59 as a result of a decrease in net fixed assets at a lower rate as compared to total assets. During the last five to years it continuously stepped down from 10.13 percent in 2059/60 to 6.58 percent in 2063/64 owing to successive decreases in net fixed assets as against increases in total assets except in 2062/63. During the first two and last three years it was below the average percentage (i.e.8.88 percentage) while it was above during the remaining years of study.

The low magnitude with high range of variation and inconsistent trend in proportion of gross block and net block to total assets of the factory show an unsatisfactory position towards the structure of its fixed assets.

4.2 Average Annual Growth of Fixed Assets

Fixed assets represent the operational capacity of the enterprise. Fixed assets should be increased if the increase in sales can not be met with the existing plant and equipment. Fixed assets may be operating at full capacity or less than full capacity. Growth of fixed assets is essential when fixed assets are operating at full capacity. Because increase in demand of customers can not be met with the existing plant and equipment. But when fixed assets are not operating at their full capacity, it is worthless to increase the fixed assets when there is increase in demand of customers.

In order to measure the growth of fixed assets, average annual growth of fixed assets should be computed. The average annual growth of fixed assets can be calculated as below.

Absolute figure of	Absolute figure of
Last year of study	first year of study
(2063/2064)	(2054/2055)

571.8.9	-752.1

Number of years i.e. 10 years.

Table 4.2

Average Annual growth in Gross Block and Fixed Assets (Net) of JCF.

Gross Block	Fixed Assets(Net)
5718.9	-752.1

Table 4.2 shows the average annual growth in fixed assets. It is evident from the table that the growth in gross block is positive and growth in fixed assets (net) is negative.

4.3 Impact of Gross Block on sales and Operating profit

Gross block, sales and operating profit are related in the sense that gross block generates sales by utilizing working capital and ultimately generates profit. Hence, the impact of gross block on states and operating profit is large.

The impact of gross block on sales and operating profit may be positive or negative. The positive impact of gross block on sales and operating profit occurs only when existing plant and equipments are operating at full capacity. In this situation, increase in gross block in association with increased working capital leads to increase in production and generates profit if produced goods are sold. If existing plant and equipment are not operating at optimum

capacity, the increase in gross block does not lead to increase in sales and it may reduce the operating profit.

Gross block, sales and operating profit are interdependent. Any movement in one has its effect upon the movement of other too. The expanding gross block should have its impact upon sales as well as upon operating profits. If the gross block and sales are increasing, it can be said that either the gross block has followed the increase in sales or the expansion of gross block has been justified on account of increase in sales. If the rate of growth of sales is higher than the rate of growth of gross block, it can be said that there is better utilization of gross block expansion. On the other hand, if gross block expansion rate is more than that of sales, it represents excess investment in gross block and its poor utilization. If the trend in operating profit margin is also considered and the increasing trend of operating profit margin shows better operating efficiency and more profitable sales, the impact of gross block will be more sales and more profits. In case of operating loss the expansion in gross block may not be profitable.

Table 4.3 shows the impact of gross block on sales and operating profit.

Table 4.3

Indices of Gross Block, Sales and Operating Profit Of JCF During 2054/55 to 2063/64

(Base year 2054/55 =100)

Year	Gross Block Indices	Sales	Operating Profit
2054/2055	100.00	100.00	100.00
2055/2056	103.64	83.04	-196.17
2056/2057	121.97	72.21	-4.969.12
2057/2058	122.82	72.37	-616.21
2058/2059	124.14	99.86	-183.22
2059/2060	126.47	101.02	105.64
2060/2061	127.21	107.29	266.69
2061/2062	127.37	125.38	451.79
2062/2063	129.73	123.81	164.66

2063/2064	130.07	122.12	187.17
Average (X)	121.34	100.71	-21.58

[Source : Appendix 5]

Correlation between gross block & sales, r 12 0.44

Correlation between gross block & operating profit, r 13 0.26

Indices of gross block marked increasing trend during the period of study. It was 130.07 in 2063/64 as against 100 in 2054/55.

Indices of sales registered the fluctuating trend during the period under review. It varied from 72.21 in 2056/57 to 125.38 in 2061/62 constituting a range of 53.17.

Indices of operating profit also registered the fluctuating trend during the study period. It varied from 616.21 in 2057/58 to 2061/62 recording a range of 1068.

Indices of sales decreased up to the year 2058/59 with respect to the base year. It indicates inefficient utilization of expanded gross block to generate sales in these years. Indices of sales increased to the remaining of the years in comparison to the base year. It suggests there was a bit utilization of expanded gross block from 2059/60 to 2063/64. On the whole, the expanded gross block has not been managed efficiently as the average index of gross block (i.e.121.34) is much larger than the average index of sales (i.e.100.71).

There was huge negative decrease in indices of operating profit up to the year 2058/59. It indicates lack of utilization of expanded gross block to generate operating profit. Indices of operating profit increased from the year 2059/60 to the end of period under review. It shows a bit utilization of expanded gross block in the year 2059/60 and satisfactory utilization of gross block during the last four years. On the whole expanded gross block has not been utilized to generate operating profit as the average index of operating profit is negative i.e. -21.58.

It can be inferred that JCF has not been utilizing expanded gross block, efficiently to generate sales or operating profit.

4.4 Financing of Fixed Assets

Fixed assets have a long span of time. They are generally financed by the properties of the enterprise. If the owner's funds are not sufficient to finance the fixed assets of the

enterprise then fixed assets should be financed through long term borrowings. It means that at any cost short-term funds should not be used to finance fixed assets. Although Nepalese private enterprises rely on external sources for financing the fixed assets, Nepalese public enterprises have usually been found reluctant to borrow from outsiders. Here, in this study, financing pattern of cigarette industry with reference to JCF has been analyzed using fixed assets to net worth ratio and fixed assets to long-term funds ratio.

4.4.1 Fixed Assets To Net Worth Ratio

This ratio explains the relationship between fixed assets and tangible net worth, viz, preference share capital, equity share capital and retained earnings. This ratio is very important for the purpose of analysis. By a through study of this ratio the following questions may be answered.

a) Have the owners provided enough funds to finance fixed assets ?

b) Have those funds been unnecessarily blocked up in fixes assets ?

It is an important tool for judging the margin of safety for long-term creditors. The lesser the ratio the greater is the margin of safety for long term creditors. If the net worth is less than the fixed assets, it implies that the loan funds are utilized to finance a part of the fixed assets, and when the amount of ownership founds exceeds the value of fixed assets, a part of the net working capital is provided by the shareholders. The yardstick of this measure is 65 percent for industrial undertakings[1].

It means that 65 percent of funds are to be used for acquiring fixed assets and rest for current assets. This ratio of fixed assets to net worth is calculated by dividing the fixed assets by net worth of the industry or company. The formula may be expressed as follows.

Ratio of fixed assets to net worth = Fixed Assets (Net) / Net Worth

1. **J. Fred Westion and Eugene F. Brigham, "Managerial Finance", Holt, Rinehart and Winston Inc, 1972, New York, P, 83**

Table 4.4

Fixed Assets to Net Worth Ratio of JCF

2054/5to2063/64

Year	**Fixes Assets in Rs. '000'**	**Net Worth in Rs. '000'**	**Ratio (%)**	**Absolute Standard (%)**	**Deviation from Standard (%)**	**Deviation from previous year (%)**
2054/2055	59271	435904	13.60	65	-51.4	-
2055/2056	58965	409530	14.40	65	-50.6	+0.8
2056/2057	87855	342395	25.66	65	-39.34	-11.26
2057/2058	79976	271712	29.43	65	-35.57	+3.77
2058/2059	7387	169782	43.51	65	-21.49	+14.08
2059/2060	71924	172888	41.60	65	-23.40	-1.91
2060/2061	66453	183813	36.15	65	-28.85	-5.45
2061/2062	60609	256470	23.63	65	-41.37	-12.52
2062/2063	58215	257645	22.60	65	-42.40	-1.03
2063/2064	51750	262161	19.74	65	-45.26	-2.86

[Source : Appendix 6]

X	**66.2**	**275.6**
S.D.	**10.59**	**89**
Coefficient of S.D.	**0.16**	**0.3229**

Coefficient of correlation between fixed assets Net worth is 0.1742.

Table 4.4 shows the ratio of fixed assets to net worth so as to consider the financing of fixed assets of JCF during the period 2054/55 to 2063/64.

The absolute amounts of net fixed assets and net worth of the factory, as indicated in table 4.4, registered indefinite trends during the period under study, the linear co-efficient of correlation between net fixed assets and net worth comes to be 0.1742 which indicates that the variables have a very low degree of positive correlation and suggests that the factory has not followed a uniform policy to finance fixed assets by raising shareholder's founds. The standard deviation in net fixed assets and net worth are Rs.10.59 thousands and Rs.89 thousands respectively whereas the coefficients of standard deviation for net fixed assets and net worth are 0.16 and 0.3229 respectively. The greater coefficient of standard deviation for net worth indicates that the variation in net worth has been much greater in different years as compared to net fixed assets. During the period of study, the net fixed assets to net worth ratio registered a fluctuating trend and varied from 13.60 percent in 2054/55 to 43.51 percent in 2058/59 recording a range of 29.91 percent.

During the second year, the ratio increased due to decrease in net fixed assets accompanied by relatively higher decrease in net worth. In the year 2056/57 this ratio increased by 11.26 percent and moved to 25.66 percent due to increase in fixed assets especially and fixtures backed by relative decreased in net worth. This ratio rose to 29.43 percent in 2057/58 and 43.51 percent in 2058/59 with a deviation from previous year being +3.77 and +14.08 respectively. It increased due to decrease in fixed assets accompanied by relatively higher decrease in net worth. The fixed assets decreased by the amount of depreciation. In the year 2059/60 the ratio moved down to 41.60 percent and the drop in the ratio continued up to the year 2063/64 and reached to 19.74 percent with a deviation from previous year ranged between -1.03 to -12.52 during these years. The decrease in ratio

happened because of decrease in fixed assets accompanied by increase in net worth. The net worth increased because of pouching back of earnings.

Fixed assets to net worth was always less than the absolute standard of 65 percent, the deviation of this ratio from the absolute standard varied from -21.49 percent in 2058/59 to -51.4 percent in 2054/55 recording a range of -29.91 percent. This ratio highly deviated during first four years and last three years. There was relatively lower deviation of this ratio from absolute standard during 2058/59 to 2060/61.

To sum up, the fixed assets to net worth ration of JCF during the period of study indicates that less then 50 percent of shareholder's fund are utilized to finance fixed assets and more then 50 percent of owner's fund are utilized to finance assets.

The foregoing analysis indicates that JCF financed its fixed assets from its own sources and did not depend on borrowings.

4.4.2 Fixed assets To Long-term funds Ratio

The fixed assets to long-term funds ratio shows whether long term funds were sufficient to finance fixed assets. This ratio is intimately connected with the concept of working capital and debt to equity ratio. Normally working capital is known as excess of current assets over current liabilities. If current assets exceed current liabilities it means they are being financed through long term funds. There fore, long-term funds must cover some current assets requirement and then only the presence of working capital will be felt. But if they are not sufficient to finance even fixed assets, there will be working capital deficit.

Ideally, this ratio should not exceed unity. If it is less than unity, it means that long-term funds are more than the fixed assets and that they are used for the purposes other than the long-term assets i.e. for financing working capital[2].

Fixed assets to long-term funds ratio can be computed on the basis of following formula.

Fixed Assets (Net) / Long-term Funds

Here fixed assets will mean net fixed assets as indicated above and long-term funds will denote equity and preference share capital, reserves, debentures and long-term loans.

2. **N.I. Hingorani and A.R. Ramanathan, "Management Accounting", Sultan Chand and Sons, New Delhi 1977, P. 115.**

Table 4.5

Fixed Assets to Long-term funds Ratio of JCF

2054/2055 to 2063/2064

Year	Fixed Assets in Rs. '000'	Long term funds Rs. '000'	Ratio (%)	Absolute Standard (%)	Deviation from Standard(%)	Deviation from previous year (%)
2054/2055	59271	471162	0.13	1	-0.87	-
2055/2056	58965	494977	0.12	1	-0.88	-0.01
2056/2057	87855	480672	0.18	1	-0.82	+0.06
2057/2058	79976	414589	0.19	1	-0.81	+0.01
2058/2059	7387	315011	0.23	1	-0.77	+0.04
2059/2060	71924	295911	0.24	1	-0.76	+0.01
2060/2061	66453	306609	0.21	1	-0.79	-0.03
2061/2062	60609	329300	0.18	1	-0.82	-0.03
2062/2063	58215	302378	0.19	1	-0.81	+0.01
2063/2064	51750	329673	0.16	1	-0.84	-0.03

[Source : Appendix 7]

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X **66.2** **373.5**

S.D.	**10.59**	**77.60**
Coefficient of S.D.	**0.16**	**0.21**

Coefficient of correlation between fixed assets Net worth is 0.2216

Fixed assets to long-term funds ratio of JCF has been presented.

In table 4.5, along with the standard deviation and coefficient of standard

Deviation in fixed assets and long-term funds and the coefficient of correlation between fixed assets and long-term funds.

The absolute amounts of both fixed assets and long-term funds of the factoryduring the period of study from 2054/55 to 2063/64 as shown in table 4.5, recorded indefinite trend. The linear coefficient of correlation between fixed assets and long term funds comes to 0.2216 which shows that the two variables have a very low degree of positive correlation and suggests that the factory has not followed a uniform policy to finance fixed assets by raising long-term funds are Rs.10.59 thousands and 77.60 thousands respectively while the coefficient of standard deviations for fixed assets and long-term funds are 0.16 and 0.21 respectively. The greater co-efficient of standard deviation for long-term funds shows that the long-term funds of the factory varied more than its fixed assets.

The fixed assets to long-term funds ratio of the factory marked a fluctuating trend during the period under review. It fluctuated from 0.12 times in the year 2055/56 0.24 times in 2059/60 constituting a range 0.12 times. This ratio decreased by 0.01 times in the year 2055/56 from the year 2054/55 due to decrease in fixed assets accompanied by increase in long-term funds. The fixed assets decreased by the amount of depreciation and the increase in long-term funds resulted due to increase in long-term loan. In the year 2056/57, this ratio increased to 0.18 times with a deviation from previous year being +0.06 times due to increase in fixed assets accompanied by decrease in long-term fund. Increase in fixed assets resulted because of purchase of furniture and fixtures in this year. Decrease in long-term funds resulted due to decrease in net worth. This ratio continuously increased up to the year 2059/60 and reached to 0.24 times with a deviation from previous year being +0.01 times in the year 2057/58 and 2059/60 and +0.04 times in the year 2058/59. The increase in this ration occurred during these periods due to relatively higher decrease in long-term founds as against decrease in fixed assets. From the year 2060/61 to the year 2061/62, this ratio decreased with a deviation from the previous year being -0.03 times due to decrease in fixed assets backed by

increase in long-term founds. Again in the year 2062/63, it further improved to 0.19 times with a deviation from previous year being +0.01 times due to relatively higher decrease n long-term funds in the year 2063/64, it decreased by 0.03 times and declined to 0.16 times due to increase in long-term founds accompanied by decrease in fixed assets. There was increase in long-term found due to increase in both net worth and long-term loans.

There was wide deviation of actual ratios from unity.The deviation of actual ratios from standard varied from 0.76 times in 2059/60 to -0.88 times in 2055/56 recording a range of -0.12 times during the period of study. In fact, 0.12 times to 0.24 times of long-term funds were utilized to finance Fixed assets and 0.76 times to 0.88 times of long-term funds were utilized to finance working capital or there was no working capital deficit. Hence, the position of the factory was satisfactory as there were sufficient long-term funds to finance fixed as well as working capital.

4.5 Efficiency in the use of Fixed Assets

Fixed assets are earning assets. They are utilized to generate sales and returns therefore. Therefore, the frequency with which the fixed assets are utilized to generate sales affects the efficiency of fixed assets. The greater the turnover of fixed assets, the more efficient are the fixed assets of an enterprise, or vice-versa. The turnover ratio of fixed assets is the main measure of the efficiency of fixed assets of JCF.

Fixed Assets Turnover Ratio

An enterprise acquires plant and machinery and other productive fixed assets for the purpose of generating sales, the efficiency of fixed assets should be judged in relation to sales. The sales to fixed assets ratio or fixed assets turnover ratio shows the efficiency with which the enterprise is utilizing its investment in fixed assets such as land and building, plant and machinery, furniture etc. it also indicates the adequacy of sales in relation to investment in fixed assets. In short run fixed assets turnover ratio can be good indicator of efficiency because the enterprise can not adjust its fixed assets for short-term market fluctuations. The standard for this ratio is 5 times in manufacturing industry[3]. This ratio can be computed in the following way.

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3. C.A. Westwick, Management : How to Use Ratios, Grower press Limited, Epping Essex, 1973, p.5.

Fixed assets turnover = Net Sales / Net Fixed Assets

The term 'Net Sales' includes the sales revenue received from the sales of cigarette and cigarette products. 'Net Fixed Assets' includes the fixed assets currently used by JCF minus accumulated depreciation.

A high fixed assets turnover ratio is an indicative of the efficient utilization of fixed assets in generating sales. While a low fixed assets turnover ratio signifies inefficient management and utilization of fixed assets.

Table 4.6

Fixed Assets Turnover Ratio of JCF

2054/2055 to 2063/2064

Year	Net Worth in Rs. '000'	Fixes Assets in Rs. '000'	Ratio(%)	Absolute Standard (%)	Deviation from Standard(%)	Deviation from previous year (%)
2054/2055	59271	950741	16.04	5	+11.04	-
2055/2056	58965	789473	13.39	5	+8.39	-2.65
2056/2057	87855	686568	7.81	5	+2.81	-5.58
2057/2058	79976	688032	8.60	5	+3.60	+0.79
2058/2059	7387	911377	12.34	5	+7.34	+3.74
2059/2060	71924	960392	13.35	5	+8.35	+1.01
2060/2061	66453	1020054	15.35	5	+10.35	+2.00
2061/2062	60609	1192066	19.67	5	+14.67	+4.32
2062/2063	58215	1177090	20.22	5	+15.22	+0.55
2063/2064	51750	1161042	22.44	5	+17.44	+2.22

[**Source : Appendix 8]**

X	**953.4**	**66.2**
S.D.	**180.36**	**0.26**
Coefficient of S.D.	**0.1892**	**0.26**

Coefficient of correlation between fixed assets Net worth is -0.75

Fixed assets turnover ratio of JCF has been presented in the table 4.6, along with the standard deviation and coefficient of standard deviation of sales and fixed assets and the coefficient of correlation between sales and fixed assets.

The absolute amount of fixed assets and sales of the factory, as indicated in Table 4.6, marked fluctuating trend during the period of study from 2054/55 to 2063/64. The linear co-efficient of correlation between, sales and fixed assets comes to -0.75 which indicates that the two variables have high degree of negative correlation. The standard deviations of sales and fixed assets are Rs. 180.36 thousands and Rs. 10.50 thousands respectively whereas the coefficient of standard deviations of sales and fixed assets are 0.1892 and 0.16 respectively. The greater coefficient of standard deviation of sales indicates that the variation in sales has been much greater in different years as compared to variation fixed assets.

The fixed assets turnover ratio of the factory registered a decreasing trend from the year 2054/55 to the year 2056/57 and increasing trend there after till the end of study period. It varied from 7.81 times in 2056/57 to 22.24 times in 2063/64 recording a range of 14.43 times. The deviation in the fixed assets turnover ratio as compared to the previous year was found from -5.58 times in the year 2056/57 to +4.32 times in the year 2061/62.

In the year 2054/55 the fixed assets turnover ratio was 16.04 but it came down to 13.39 percent in the year 2055/56 with a deviation from the previous year being 2.65 times. It was due to the fact that the decrease in sales accompanied by relatively lower decrease in fixed assets. Again, in the year 2056/57 it moved down to 7.81 times with deviation from the previous year being -5.58 times due to decrease in sales accompanied by increase in fixed assets. This ratio moved up to 8.60 times in the year 2057/58 and continued to increase till the end of study period with deviation from the previous year being varied from +0.79 times to +4.32 times during these periods. This ratio increased from the year 2057/58 to the year 2061/62 due in increase in sales accompanied by decrease in fixed assets. In the last two years of study, this ratio increased due to relatively higher decrease in fixed assets with respect to decrease in sales.

The deviation of actual ratios from standard decreased from standard decreased from 2054/55 to 2056/57 and marked increasing trend during the rest of the study period. It varied from +2.81 times in 2056/57 to +17.44 times in 2063/64. Each year fixed assets turnover ratio was higher than the absolute standard i.e. 5 times and was much higher than the standard that was suggested by Radhe Shyam Pradhan by analyzing fixed assets turnover ratios of ten manufacturing public corporation. He has computed the mean ratio as 2.4 times over the eleven year study period (2054/55 to 2063/64)[4].

The foregoing analysis indicates that the fixed assets of the factory were efficiently utilized throughout the period under review.

4.6 Profitability in the use of Fixed Assets

Fixed assets are purchased for their use in a business to earn profit. Hence, it is essential to judge the profitability in relation to investment in fixed assets or whether fixed assets are profitably used in the enterprise or not. The return on fixed assets ratio measures the profitability in relation to investment in fixed assets. Therefore, in order to measure the profitability of fixed assets of JCF, return on fixed assets ratio has been calculated.

Return on Fixed Assets Ratio

Return on fixed assets ratio is the relationship between net income and net fixed assets. It can be calculated in the following way.

Return on Fixed Assets = Net Income/Net Fixed Assets

'Net income' is the earning after interest and tax. And 'Net Fixed Asset's is the gross block of JCF minus accumulated depreciation.

High return on fixed assets indicates profitable investment in fixed assets and low return on fixed assets indicates investment in fixed assets is not profitable.

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4. Radhe Shyam Pradhan, "Public Corporation of Nepal", National Book organization, New Delhi 1986, P.79.

Table 4.7

Return on Fixed assets Ratio of JCF

2054/2055 to 2063/2064

Year	Fixed assests in Rs. '000'	Net income in Rs. '000'	Ratio (%)	Absolute Standard (%)	Deviation from Standard(%)	Deviation from previous year (%)
2054/2055	59271	10129	17.09	12.56	29.65	-
2055/2056	58965	39193	66.47	12.56	53.91	83.56
2056/2057	87855	80579	91.72	12.56	79.16	25.25
2057/2058	79976	82727	103.44	12.56	90.88	11.72
2058/2059	73872	49667	67.23	12.56	54.67	36.21
2059/2060	71924	4665	6.49	12.56	6.07	60.74
2060/2061	66453	19.291	29.03	12.56	41.59	35.52
2061/2062	60609	67.127	110.75	12.56	123.31	81.72
2062/2063	58215	14130	24.27	12.56	36.83	86.48
2063/2064	51750	14801	28.60	12.56	41.16	4.33

[Source : Appendix 9]

X	**(130)**	**66.2**
S.D.	**51.82**	**10.59**
Coefficient of S.D.	**-3.98**	**0.16**

Coefficient of correlation between net income and fixed assets is -0.68

Table 4.7 reveals return on fixed assets ratio of JCF along with the standard deviation and coefficient of standard deviation of net income and fixed assets and the coefficient of correlation between net income and fixed assets.

In absolute rupee amounts the net income and fixed assets of JCF registered a fluctuating trend which resulted in a fluctuating ratio during the period of study from 2054/55 to 2063/64. The linear coefficient of correlation between net income and fixed assets comes to -0.68 which indicates that the two variables have high degree of negative correlation and suggests that the factory has to minimize fixed assets in order to maximize net income. The standard deviation of net income and fixed assets are Rs. 51.82 thousands and 10.59 thousands respectively while the coefficients of standard are Rs.51.82 thousands and 10.82 thousands respectively while the coefficients of standard deviation for net income and fixed assets are 3.98 and 0.16 respectively.

The return on fixed assets ratio of the factory registered indefinite trend during the period under study. The ratio varied from 103.44 percent in 2057/58 to 110.75 percent in 2061/62 constituting a range of 214.29 percent. The ratio was 17.09 percent in the year 2054/55 and declined to negative in the year 2055/56 and continued till the year 2059/60. After the year 2059/60, it started to move positive and continued till the end of study periods.

It decreased to (66.47) percent in the year 2055/56 with a deviation from the previous year being (83.56) percent due to net loss accompanied by decrease in fixed assets. The negative ratio increased to (91.72) percent in the year 2056/57 with a deviation from the previous year being (25.25) percent due to increase in net loss supported by increase in fixed assets. This negative ration climbed up to (103.44) percent in the year 2057/58 with a deviation from the previous year being (11.72) percent due to increase in net loss accompanied by decrease in fixed assets. It decreased to 67.23 percent in 2058/59 and 6.49 percent in 2059/60with a deviation from the previous year being 36.21 percent in 2058/59 and 60.74 percent in 2059/60 due to decrease in net loss with respect to decrease in fixed assets. It started to move positive in the year 2060/61 and was 29.03 percent in this year with a deviation from the previous year being 35.52 percent due to occurrence of income accompanied by decrease in fixed assets. It increased to 110.75 percent in the year 2061/62 with a deviation from the previous year being 81.72 percent due to increase in net income supported by decrease in fixed assets. It decreased to 24.27 percent in the year 2062/63 with a deviation from the previous year being (86.48) percent due to relatively higher decrease in net income as against decrease in fixed assets. It again increased in the year 2063/64 which was

28.60 percent with a deviation from the previous year being 4.33 percent due to increase in net income accompanied by decrease in fixed assets in comparison to previous year.

The average return on fixed assets ratio is (12.56) percent. The deviation of actual ratios from average ratio varied (90.88) percent in the year 2057/58 to 123.31 percent in 2057/58. There was negative deviation from the average during the year 2055/56 to the year 2058/59 and was positive deviation during rest of the study periods. The foregoing analysis indicates that there was profitable use of fixed assets during the first year and last four years of study periods especially in the year 2061/62 but there was unprofitable use of fixed assets during the year 2055/56 to the year 2059/60. To sum up, fixed assets has not been used profitably during the periods under review.

4.7 Analysis of Depreciation Provisions

Most fixed assets have limited lives and the cost of such assets is customarily spread over the life of these assets through depreciation. When provision of depreciation fund is built up every year, the business will not experience the shortage of working capital. The enterprise will not have to look outside for finance at the time of replacement of the asset.

Analysis of depreciation provision is necessary. It reveals how old were the fixed assets of the enterprise and how efficiently they were utilized to generate sales and profits. Analysis of depreciation provision includes analysis of adequacy of depreciation and review of depreciation.

4.7.1 Adequacy of Depreciation

The amount of depreciation charged in the profit and loss account must be adequate enough t replace the old fixed assets with property of equal efficiency at the end of its useful life. Hence, depreciation should be charged which satisfies the need of the industry whether on the basis of the current cost or historical cost. Adequacy of depreciation can be measured with the help of comparative study between gross block and accumulated depreciation.

Table 4.8 presents indices of gross block and accumulated depreciation of JCF during the period of 2054/55 to 2063/64.

Table 4.8

Indices of Gross Block and Accumulated Depreciation of
JCF 2054/55 to 2063/64

(Base year 2054/55=100)

Year	**Gross Block in Rs. '000'**	**Index Number**	**Deprecation in Rs. '000'**	**Index Number**
2054/2055	190177	100.00	130906	100.00
2055/2056	197097	103.64	138132	105.52
2056/2057	231961	121.97	144106	110.08
2057/2058	233576	122.82	153600	117.34
2058/2059	236085	124.14	162213	123.92
2059/2060	240521	126.47	168597	128.79
2060/2061	241916	127.21	175463	134.04
2061/2062	242233	127.37	181624	138.74
2062/2063	246721	129.73	188506	144.00
2063/2064	247366	130.07	195616	149.43
Average (X)		121.34		125.18

Indices of gross block and indices of accumulated depreciation marked increasing trend during the period of study. Indices of gross block varied from 100 in 2054/55 to 130.07 in 2063/64 constituting a range of 30.07. Similarly, indices of accumulated depreciation varied from 100 to 149.43 recording a range of 49.43. The mean index number is 121.34 of gross block and 125.18 of accumulated depreciation.

Index of accumulated depreciation increased to 105.52 and index of gross block increased to 103.64 in the 2055/56. Index number of accumulated depreciation was greater than the index number of gross block. It indicates there was adequacy of depreciation in this year. Indices of accumulated depreciation were 110.08, 117.34 and 123.92 in the year 2056/57, 2057/58 and 2058/59 while indices of gross block were 121.97, 122.82 and 124.14 in the year 2056/57, 2057/58, and 2058/59. Indices of accumulated depreciation were less than the indices of gross block in these years. It suggests that there was inadequate

depreciation maintained by the management during 2056/57 to 2058/59. From the year 2059/60 to the end of period under review. Indices of accumulated depreciation was always greater than the indices of gross block. It suggests there was adequate depreciation maintained by management from 2059/60 to 2063/64. By comparing average index of accumulated depreciation and average index of gross block, it can be inferred that the position of the factory was satisfactory from the viewpoint of adequacy of depreciation during the study periods.

4.7.2 Review of Depreciation Policy

Depreciation policy of the enterprise is framed at the top level of management. However, the management should decide the depreciation policy keeping various factors in mind. Depreciation policy of JCF has been studied by calculating following two ratios :

i. Depreciation to Gross Block Ratio
ii. Depreciation to sales Ratio

Table 4.9 represents accumulated depreciation to gross block ratio and annual depreciation to sales ratio of JCF during the period 2054/55 to 2063/64.

Table 4.9

Ratio of Accumulated Depreciation to Gross Block and Annual Depreciation to Net sales of JCF during 2054/55 to 2063/64

Year	Accumulated Depreciation in Rs.'000'	Gross Block in Rs.'000'	Accumulated Depreciation to Gross Block Ratio in (%)	Annual Depreciation in Rs.'000'	Sales in Rs.'000'	Annual Depreciation on to sales Ratio in 'Percent'
2054/2055	130906	190177	68.83	7560	950741	0.80
2055/2056	138132	197097	70.08	7322	789473	0.93
2056/2057	144106	321961	62.13	6372	686568	0.93
2057/2058	153600	233567	65.76	9495	688.32	1.38
2058/2059	162213	236085	68.71	8613	911377	0.95
2059/2060	168597	240521	70.10	7688	960392	0.80
2060/2061	1754663	241916	72.53	7295	1020054	0.2
2061/2062	181624	242233	74.98	6747	1192066	0.57
2062/2063	188506	246721	76.40	6909	1177090	0.59
2063/2064	195616	247366	79.08	7110	1161042	0.61

The ratio of accumulated depreciation to gross block fluctuated during first three years and showed marked increasing trend during the last seven years of study. This ratio increased from 2054/55 to 2055/56 due to relatively higher increase in accumulated depreciation as against increase in gross block. It decreased quite largely in the year 2056/57 with a deviation from the previous year being -7.95 percent due to increase in gross block at a much higher rate as compared with increase in accumulated depreciation. After the year 2056/57, it moved up to 65.76 percent in the year 2057/58 and continued till the year 2063/64 and reached to 79.08 percent in this year. It was because of relatively higher increase in accumulated depreciation in comparison to increase in gross block.

Annual depreciation to sales ratio registered fluctuating trend during the periods under review. It varied from 0.57 percent in the year 2061/62 to 1.38 percent in the year 2057/58. It

was 0.80 percent in the year 2054/55 and increased to 0.93 percent in the year 2055/56 with a deviation from previous year being 0.13 percent due to relatively higher decrease in sales in respect of decrease in annual depreciation. It remained constant in the year 2056/57 and increased to 1.38 percent in the year 2057/58 with a deviation from the previous year being 0.45 percent due to relatively larger increase in annual depreciation as against increase in sales it came down to 0.95 percent in the year 2058/59 and continued to decrease up to the year 2061/62 because of decrease in annual depreciation accompanied by increase in sales. Again, It moved up to 0.59 percent in the year 2062/63 and reached to 0.61 percent in the last year of study period due to increase in annual depreciation accompanied by decrease in sales.

Accumulated depreciation to gross block ratio and annual depreciation to sales ratio both have fluctuating trend. It indicates that the factory has not stable depreciation policy.

4.7.3 Major findings : The major findings of the study may be summed up as follows:

i. The percentages of gross block, accumulated depreciation an block to total assets of the JCF registered fluctuating trends during the period of study. Their average percentages came to be 30.6, 21.72 and 8.88 having a range of variation of 9.63,8.26 and 4.90 respectively. The proportions of gross block and net block to total assets of the factory were always much below 50 percent. The very low magnitude with very high ranges of variation and inconsistent trends in proportions of gross block and net block showed an unsatisfactory position towards the structure of fixed assets of the factory.

ii. The factory witnessed an average annual growth of Rs.5718.9 thousand in fixed assets (net) during the same period. The growth in gross block is much higher than the decline in net fixed assets. As the factory is not operating at its full capacity, it is worthless to increase gross block even if there is increase in demand of customers.

iii. The index number of gross block of the factory recorded an increasing trend throughout the period of study while the indices of sales and operating profit marked a falling tendency during the first four years and a rising tendency during the last six years of study except in 2062/63. The averages of indices of gross block, sales and operating

profit came to be 121.34, 100.71 and -21.58 respectively. Obviously, the impact of expansion in gross block on sales was negligible whereas it was negative on operating profit. Further, there was a low degree of positive correlation between gross block & sales and sales &operating profit. Thus the investment in gross block was not profitable due to under utilization of fixed assets and fast rising operating cost.

iv. The linear coefficient of correlation between fixed assets and worth of the factory during the period under review was very low being 0.17 which implies that a definite policy for financing fixed assets was not followed. The coefficients of standard deviations for fixed assets and net worth were 0.16 and 0.32 respectively. As the coefficient of standard deviation for net worth was greater than that of fixed assets, there was more variability in net worth. The ratio of fixed assets to net worth marked an increasing trend during the first five years and a decreasing trend during the last five years of study. It varied from 13.60 percent in 2054/55 to 43.51 percent in 2058/59 recording a range of 29.91. as it was always much below the standard ratio of 65 percent, the owner's are sufficient not only for financing the fixed assets but also for financing a major part of the current assets requirements.

v. The linear coefficient of correlation between the fixed assets and long-term funds of the factory during the period of analysis was very low being 0.22 which indicates that a definite policy for financing fixed assets was not followed. The coefficients of standard deviations for fixed assets and long-term funds were 0.16 and 0.21 respectively. As the coefficient of standard deviation for long-term funds was greater than that of fixed assets, there was more variability in long-term founds. The ratio of fixed assets to long-term founds recorded an upward trend during the first six years except in 2055/56 and a downward trend during the last four years of study. It constituted a range of 0.12 varying from 0.12 in 2055/56 to 0.24 in 2059/60. As it was always much below unit, the long-term founds were sufficient not only for financing the fixed assets but also for financing a major part of the current assets requirements. Thus, the practice of financing fixed assets of the factory is sound.

vi. The sales to fixed assets ratio of the factory registered a decreasing tendency during the first three years and an increasing tendency during the last seven years of study. It constituted a range of 14.63 varying from 7.81 times in 2056/57 to 22.44 times in 2063/64. However, it was always above the generally accepted norm of 5 times making an indication of an efficient utilization of the investment in fixed assets.

vii. The linear coefficient of correlation between net income and net fixed assets of the factory during the period of analysis was moderately negative being -0.68. it indicates that an unprofitable investment policy was adopted. The coefficients of standard deviations for net income and net fixed assets were -3.98 and 0.16 respectively. The greater coefficient of standard deviation for net income implies that there was more variability in net income as compared to net fixed assets. The return on fixed assets recorded a decreasing tendency during the first four years and an increasing tendency during the last six years of study except in 2062/63. It varied from -103.44 percent in 2057/58 to 110.75 percent in 2061/62 constituting a range of as high as 224.19. the average rate of return on fixed assets was negative being -12.56. the foregoing analysis makes it clear that the investment in fixed assets of the factory is not profitable.

viii. The indices of both gross block and depreciation of the factory marked increasing trends during the period under review. The index number of gross block increased from 100 in 2055/56 to 130.07 in 2063/64 while that of depreciation increased from 100 in 2055/56 to 149.43 in 2063/64. Also the index number of depreciation was always greater than that of gross block during the period of analysis except in 2056/57. The mean index number of gross block during the period of study was 121.34 while that of depreciation was 125.18. obviously, the provision for depreciation made by the factory is even more than sufficient.

ix. The accumulated depreciation to gross block ratio registered a fluctuating tendency during the first three years and an increasing tendency during the last seven years of study. It varied from 62.13 percent in 2056/57 to 79.08 percent in 2063/64 constituting a range of 16.95. the ratio of annual depreciation to sales marked an increasing tendency during the first four years and last two years of study while a

decreasing tendency during the remaining years. It recorded a range of 0.81 varying from 0.57 percent in 2061/62 to 1.38 percent in 2057/58. The indefinite trends and high ranges of variations in the above rations make it clear that a stable policy of charging depreciation on fixed assets has not been followed in the factory.

Chapter V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The cigarette industry being an agro-based import substitution industry in Nepal occupies a pivotal place in the modern sectors of the national economy. This industry has made the country self-sufficient in respect of cigarette production. The industry not only gives a shoulder in improving the country's balance of payment situation by substituting the import of cigarette but also contributes significantly to tax revenue. As the country is well-endowed with major resources, such as raw materials, power and skilled man-power needed for the proper development of the industry, it possesses immense scope for expansion and growth. Realizing the facts, Nepal Government encouraged both the public and private sector cigarette manufacturing units in various ways. However, the industry could not grow healthily. So much so that the two cigarate manufacturing units (Nepal Cigarate Factory, Birgunj and Nepal Tobacco Company, Hetauda) out of the four were closed due to different problems. Thus, at present there are only two operational cigarette manufacturing units in Nepal i.e. Janakpur Cigarette Factory (JCF) and Surya tobacco Company (STC). With a total installed production capacity of 8 arab and 25 crore sticks per annum. The former is a public sector undertaking with a production capacity of f5 arab and 25 crore sticks per annum while the latter is a private one having an annual production capacity of 3 arab sticks.

Unfortunately, the JCF's trading result is also towards gradual decline. In fact, it is plagued with several problems related to production, marketing, finance, personnel and so on. Though each of these areas needs a detailed inquiry, the present study looks into the fixed assets management being one of the vital aspects of the financial management. In particular, it focuses on financing policy, depreciation policy, utilization of fixed assets and profitability of investment in fixed assets of the factory.

This study has been undertaken with the objective of evaluating the performance of fixed assets management of the factory. In particular, it aims at assessing the structure of fixed assets, estimating the average annual growth of fixed assets, measuring the impact of gross block on sales and operating profit, reviewing the financing of fixed assets, evaluating the efficiency in the use of fixed assets and analyzing the depreciation provisions of the factory.

Over and above, it is also intended to suggest the remedial measures wherever found necessary.

The study covers a period of 10 years from 2054/55 to 2063/64 and is based entirely on secondary data. The data required for the study have been obtained directly from the registered head office of the factory. For analyzing the data, the financial techniques like ratio analysis and trend analysis have been applied. In addition, the statistical tools like percentage, average, range, standard deviation, correlation, and index number have also been used in order to make the analysis more systematic, scientific and useful.

5.2 Conclusion:

The percentage of gross block, accumulated J.C.F came to be 30.6 21.72 and 8.88 having range of variation of 9.63 8.26 and 4.90 respectively. The proportion of gross block and net block to total Assetsof the factory were always much below 50%. During the period under review the factory witnessed and average annual growth of Rs 5718.9 thousand in gross block where as it showed average annual decline of Rs 752.1 thousand in fixed assets (net) during the same period. While the indices of sales and operating profit marked a falling tendency during the first four years and rising tendency during the last six years of study Except in 2062/2063. The average of indices of gross block sales and operating profit came to be 121.34 100.71 and -21.58 respectively. The coefficient of standard deviation for fixed Assets and net worth were 0.16 and 0.32 respectively as the coefficient of standard deviation for net worth was greater than that of fixed Assets there was more variability in net worth. The linear coefficient of correlation between net income and net fixed of the factor during the period of analysis was moderately negative being -0.68. It indicates that and unprofitable investment policy was adopted. The coefficient of standard deviation for net income and net fixed Assets were -3.98 and 0.16 respectively. The average rate of return on faced assets was negative being -12.56 The index number of gross block increase from 100 in 2055/56 to 149.43 in 2063/64 Also the index number of depreciation was always greater than that of gross block during the period of analysis except in 2056/57 . The accumulated depreciation to gross block ratio registered a fluctuating tendency during the first three years and an increasing tendency during the last seven years at study. It varied from 62.13 percent in 2056/57 to 79.08 percent I 2063/64 constituting range of 16.95. It recorded a range of 0.81 varying from 0.57% In 2061/62 to 1.38% I 2057/58. The indefinite trends and high ranges of

variation in the above ratio make it clear that a stable policy of charging depreciation on fixed Assets has not been followed in the factory.

5.3 Recommendations

In the light of aforementioned analysis and interpretations, some glaring suggestions may be offered as follows:

i. Every effort needs to be made to harness full installed capacity of the factory to improve the productivity and profitability.

ii. A suitable costing system should be introduced to control the fast rising operating cost of the factory.

iii. The fixed assets of the factory should be properly revalued to build up the satisfactory structure.

iv. A stable and suitable policy of charging depreciation on fixed assets should be adopted to show true and fair view of the financial performance and position of the factory and to provide sufficient funds for replacement of assets at the end of their useful lives.

Lastly, it would not be out of place to mention here that the study has been made with some specific objectives. It, therefore, does not claim to have looked into all the problems confronting the factory. Though it has made a detailed analysis at least of the fixed assets, an inter-firm comparative analysis could not be made due to various constraints. Hence, a comparative study of the cigarette manufacturing units constituting the cigarette industry in Nepal may further be carried on at large for all practical purposes.

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