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Business Research	<p>Issues of Organizational Structure on Organization Performance and Leadership Development: A Review <i>Dr.K.Nithyavathi, Associate Professor and A.P. Shivanyshre, Research Scholar, Department of Management Sciences, Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, India</i></p> <p>Intellectual Capital: A Robust measure for Financial Performance - Evidence from Automobile Companies in India <i>Prof. Padma Bhaskar, Associate Professor, Department of BA, Prof. Girivasuki K Assistant Professor, Department of MBA, Sindhi Institute of Management, Bangalore</i></p> <p>A Comparative Study on Risk and Return of Automobile, Banking, Pharmaceutical, Infrastructure Sectors <i>Mr. V.Shriharikumar, Sr. Technical Analyst (Investment Banking)</i></p> <p>An Empirical Study on Information and Knowledge Management Practices in Malaysia Chemicals (M) Pvt Ltd <i>Mr.M.Chandran, Administrator, Raja Azhar & Husain Safri Pvt.,Ltd.,Kuanan, Malaysia.</i> <i>Dr N Sundarapandiyam, Professor, Vivekananda Institute of Management Studies, Coimbatore</i></p>
Success Story and Case Research	<p>Rasi Seeds Dr.M.Ramasami - The Harbinger of Seed Revolution <i>A Success story of Dr.M.Ramasami, Rasi Seeds (P) Ltd</i></p>
Revisiting Native Wisdom	<p>Entrepreneurship: Native Perspectives <i>Dr. V. Kulandaiswamy, Secretary, Vivekananda Institute of Management Studies</i> <i>Dr. Rupa Gunaseelan, Director i/c & Professor, BSMED, Bharathiar University, Coimbatore</i></p>

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Issues of Organizational Structure on Organization Performance and Leadership Development: A Review

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BUSINESS RESEARCH

Abstract

This paper examines the issues of organizational structure on organizational performance and the leadership development and corporate governance. An organization cannot exist without a definite structure. The purpose of organizational structure is the division of work among members of the organization, and the co-ordination of their activities so they are directed towards the goals and objectives of the organization. Strategy of development of the organization is the major factor influencing organizational structure of management. Design of organizational structure of management has to begin with the formulation of strategy of the organization. It is connected with that certain mechanisms which are a part of a certain organizational structure are necessary for successful realization of strategy of development.

It also examines how the principles of leadership development, talent retention, knowledge management and employee engagement are determined to enhance survival during recovery after a recession within organizations. It critically reviews the literature pertaining to trends in leadership development

and talent retention, with integration to knowledge management. Pragmatic insights into how organizations can enhance knowledge management through strategic and tactical implementation are offered. Key areas are identified that organizations need to implement to enhance knowledge management and people advantage. The integration of concepts with respect to employee engagement, involvement, challenges and opportunities for organizations in the recovery stage of the recession are highlighted.

KEYWORDS: Coordination, leadership development, talent retention, knowledge management and employee engagement

1. Introduction

The field of organization design appears to be in a growth period. The emergence of new organizational forms (ecosystems, platforms, business models), the spread of communications and information processing technology (machine learning, artificial intelligence), and the availability of big data have all increased the attention given to organization design as an area of scientific study. Organizational structure is used by various firms as a control mechanism to affect employee work outcomes, to ensure that the required tasks are performed effectively and efficiently, and to assist the attainment of organizational goals and objectives. Organizational structure describes the internal characteristics of an organization. These internal characteristics receive attention since they are critical to organizational failure and success and one of these is organizational commitment. Organizational commitment will enhance the success of an organization by making employees dedicated to the achievement of its goals. The success of any organization can be predicted by its success in raising and maintaining employees' commitment. High levels of commitment contribute to positive attitudes and behaviors in organizations. An important factor in organizational design is the development strategy of the organization. The strategy of the organization is connected with other factors of the organizational design and is under their influence. In the course of organizational design it is necessary to consider that strategy of development of the organization also has impact on factors of organizational design.

Leaders always have credit to influence their followers in positive manner, whether in political or institutional setup. The concept 'leadership' could be explained as an influence relationship among leaders and followers who intend real changes and outcomes and reflect their shared purposes. Another view is that leadership is a social process in which group

processes and behaviours (such as communication and decision-making) play a role. Therefore leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purpose. There are some suggestions that managers get rid of preconceived ideas of what leaders look like, and instead put employees in confusing or ambiguous situations and watch what happens. It is advised to look for the people who build connections, who bring the team together, who focus everybody on trying out different ideas. The global financial crisis, and the subsequent worldwide recession, has had far reaching impact on people and businesses specifically on employees and involved human resource management (HRM). The economic uncertainty and volatility has created a real crisis in confidence in organizations, the likes of which haven't been seen since the Great Depression. This paper is a literary exploration of the role that HRM in organizations could play in the leadership development and talent retention to help businesses recover during and after the recession.

2. Literature Review

- **Organizational Structure**

Minizberg argued that organizational structure defines how people are organized or how their jobs are divided and coordinated. Greenberg refer to organizational structure as the formal configuration between individuals and groups concerning the responsibilities, allocation of tasks, and authority in the organization. Damanpour posit that organizational structure includes the nature of formalization, layers of hierarchy, level of horizontal integration, centralization of authority and patterns of communication. It is also the manner in which power and responsibilities are allocated, and work procedures are done among members of the organization. Researchers assert that organizational structure “consists of job positions, their relationships to each other and accountabilities for the process and sub-process deliverables”.

- **Leadership**

According to Mustafa, M.R, certain risks are attached with the poor leadership which may cause to poor governance and administrative risks. These risks in long run can damage the objectivity of the organization and put a negative impression on the team works within organizations. Keeping in view the requirements, there is strong need of effective and better political leadership that may introduce new ways for corporate sector to run on profitability and sustainability. In the similar ways Colley, Doyle, Logan & Stettinius has put emphasis on achievement of organizational goals can only be possible through social leadership. Social

and political leadership can ensure economic and managerial sustainability within the country that can encourage corporate sector to follow the successful strategies and ultimately move towards efficiency and sustainability.

3. Concept of the Study

- **Organizational Structure**

Organizational structure is defined as the formal system of authority relationships and tasks that control and coordinate employee actions and behavior to achieve goals in organizations. Organizational structure describes the formal arrangement of jobs and tasks in organizations. It describes the allocation of authority and responsibility, and how rules and regulation are executed by workers in firms. Most of extant studies on organizational structure focus on centralization, formalization, and standardization.

Organizational commitment is being increasingly considered as a critical variable in work-related behavior and attitudes, and is therefore, receiving considerable attention from researchers and authors. Organizational commitment reflects the attitude of employees towards the entire organization. It refers to the relative strength of an employee's identification with a particular organization.

Organizational commitment has three main traits:

- 1- A strong acceptance and belief of the organization's aims and values.
- 2- A strong intent to remain with the organization,
- 3- Willingness to exert an additional significant effort to ensure the success of the organization, and
- 4- A strong intent or desire to remain with the organization

- **Leadership**

Talking about sustainable economy of any country, leaders have strong vision and strategies to work with their followers to achieve economic goals. The reflection of successful and effective political leadership may be positive on institutional and corporate sector as vision, goals and objectives are being specified by political leadership creating a way into the institutions to exhibit better corporate governance and achieve their organizational goals. Different authors and scholars have identified the influence of political leadership on corporate governance as Gill said that function of leadership is situational as well as contingency, as leader possess dynamic capabilities, therefore, both behavioral and economic perspective is necessary for the successful leadership. Behavioral perspective may lead to motivation and retention of best employees, and economic perspective can lead to country

and organization on the way towards profitability and success. The effective vision of political leadership can create a benchmark for corporations and hence; so many organizations are following the strategies specified by the political leadership. It may be appropriate to discuss here that many successful companies are contributing to economic development throughout the country, but sustainable business policies and collaboration with political leadership can further strengthen their power and success.

4. Issues

▪ Organizational Structure

A company with a strong organizational structure benefits from improved communication, a well-defined hierarchy and the ability to create a unified company message. As efficient as organizational structure can be, it can also create problems that can lead to loss of productivity and internal conflict. In order to maintain a robust company framework, you need to be able to identify issues within an organizational structure and deal with them as they occur. No one thinks about an organization's structure until something goes wrong and profits plummet or customers complain. That's when reporting relationships, operational metrics and business culture come under scrutiny. Proactive business leaders take the time to analyze the organizational structure from the start and make sure it facilitates efficient decision making.

The following are the issues with the Organizational Structure:

- Departmental Conflict
- Inconsistency
- Poor Communication
- Unclear Goals

▪ Leadership

Tighter labor markets, economic uncertainty and globalization are key issues that will shape the workplace and the HR profession in coming years, according to the Society for Human Resource Management's (SHRM's) Special Expertise Panels. These groups are made up of SHRM professional members charged with reporting emerging trends in areas such as ethics, global practices, HR disciplines, labor relations and technology. Throughout the past year, they have identified a wide range of challenges and notable trends, including the following:

- ✓ Stepped-up competition for talent
- ✓ New development in technology
- ✓ A rising sense of insecurity

- ✓ The impact of the economy
- ✓ Demographic changes
- ✓ Data-driven HR practices

The following are the issues with the Leadership:

- Don't fail to set real goals
- Poor time management will take you nowhere
- Inconsistent communication
- How to hire new employees?
- Don't hesitate to seek help
- Create productive environment for one and all

5. Conclusion

The organizational structure of management and strategy of the organization are closely connected among themselves, and depending on the chosen strategy it is necessary to build organizational structure. The organizational structure can be considered optimum in case strategically important fields of activity correspond or are close to the allocated functional divisions, and also the need for coordination of activity of divisions is low. Often basic organizational structures aren't capable to provide realization of the chosen strategy. In some cases there is a need for use of two or more types of organizational structures at the same time. Review from previous research has shown that effective organizational structure facilitates proper working relationships among various sub-units in the organization. This may definitely improve company efficiency within the organizational units. When a clear structure exists people perform better, tasks are divided and productivity is increased. Indeed, having a suitable organizational structure in place, one that recognize and address various human and business realities of the company in question is a pre-requisite for long term success. Effective planning should lead to better political governance, which ultimately leads to better and productive corporate governance. Better corporate governance would also ensure the corporate social responsibilities (CSR) which encourages working for welfare of people within particular state. It clearly means that leadership, corporate governance and corporate social responsibilities are interrelated with each other. The influence of political leadership does not end here as result displays that it also put strong influence on small and medium enterprises, which are considered as backbone of any economy. It is very necessary that both political and corporate leaders must work with collaboration and complete harmony.

Political leaders should provide complete freedom to corporate sector for making effective business policies and planning, and same goes to corporate sector to delegate the authorities to down level for better decision making and effective management. In addition to that, political leadership should specify effective business guidelines for the corporate sector as it provides clear framework and roadmap to business community and boosts up their confidence. According to opinions, the successful political leaderships must have strong vision to specify and strong motivation to pursue the goals which leads towards economic prosperity and community development.

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Intellectual Capital: A Robust measure for Financial Performance - Evidence from Automobile Companies in India

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Abstract

The concept of intellectual capital is main source of capital which increase productivity and profit of the firm. Most of the firms are not recognized the importance of intellectual capital towards corporate performance. This research aims to test the relationship between the components of intellectual capital and its key capital i.e. capital employed, human capital, structural capital and innovation capital on Financial performance within the Automobile sector companies. Five Indian automobile firms were selected and analysed their five years financial statements to understand the intellectual capital value as another source of productivity and a contributor to enhance corporate performance and profitability, thereby maximizing the value of the firm.

Key Words: Intellectual capital, VAIC, components of IC, performance and value of the firm.

Introduction

Accounting of new and old overlooked the role and growing importance of IPR in new corporates and also cannot determine the proper value of the firm. In today's trend, profit through IC has more important than return on other financial aspects which means the role of IC is more than the financial aspects in determining the profit of the firm. IC exhibit the value of intangible strategy of firm. In previous days asset of the firm were tangible but in new trend intangible assets are also given importance as the contribution of the same is more in terms of profitability. The present research was raised as less importance given for IC in financial statement though the contribution of IC is more in profitability and performance of the company.

Review of literature

(Ahangar, 2010) explains the impact of impact of IC and firm's success and performance in terms of finance. Researcher used VAICTM method for calculating the value-based performance of the company. In this analysis are profitability, Employee productivity, and

Growth in sales used to measure firm's performance. (branch, 2013) examines the impact of combined calculation of IC and its components such as human capital efficiency, structural capital efficiency and capital employed efficiency on company's performance that includes market valuation, profitability, productivity from the Technology, Trading and Services, Consumer Products and Hotel sectors listed in the main board of Bursa Malaysia. VAIC issued to calculate IC and to measure the financial performance market to book value, return on equity, return on asset and asset turnover are the components used for firm performance. (biserkakomnenc, 2011) aim of this research was to investigate IC as an asset which has an effect on company's performance. Applying the VAIC methodology for IC measurement, regression models were made to examine the relationships between IC and the selected corporate performance measures. (phusavat,2011) The aim of this paper is to increase the consciousness of intangible assets among manufacturing firms. The research is to test the impact of IC, and its key components on a manufacturing firm's. (choudhury, 2010) IC is viewed as a sub-set of intangible capital retained by the organization to contribute to future profits. Intangible resources are more likely to produce a competitive advantage. (lipunga, 2014) The purpose of the study was to measure the IC efficiency of the commercial banking sector. The results indicate that the sampled commercial banks achieved on average, common performance in all the years under study. (dadashinasabl, 2014) The analysis findings indicate that, the impact of IC on firm financial performance increases when DC is included as moderator. In addition, there is positive and significant relationship between HCE, SCE, and CEE with firm financial performance. (zehri, 2012) this paper, tries to find the relationship between IC and business performance from the view of financial performance, the market place and economics. By using a panel's data, researcher tested the data for obtaining results. (rehman, 2011) This study examines the performance of three main components of VAIC i.e. HCE,SCE, and CEE and its effect on company performance. It reveals that one of the important components to the IC performance is HCE. (datta, 2014) it stressed on how the company use IC, improve the competitiveness of firm. There search target is the Indian Public Sector Enterprises (PSE).The better firm in terms of performance is chosen for this research. (seyed alirezamosavi, 2012) The method of measuring IC, and its impact on firm results are covered in this study. It says developing human resource is the most important factor for firm's success. The paper explores value added of components of IC and these relationships with economic success of Iranian listed companies.

Objective of the study

1. The influence of VAIC on Return on asset of selected firms in the automobile sector.
2. The influence of VAIC on Return on Equity of selected firms in the automobile sector.
3. The influence of VAIC on Asset Turnover of selected firms in the automobile sector.

Data collection and Research methodology

The analysis is conducted on the Automobile sector of India. The sample was collected from S&P BSE data of 7 listed Indian companies (Ashok Leyland, Bajaj Auto, Eicher Motors, Hero Motocorp, Mahindra & Mahindra) for a period of 5 years.

Measurement of the Variables

Dependent Variables

ROA, ROE and ATO are classified as dependent variables. ROA and ROE as the measures of profitability and ATO as the measure of productivity.

Independent Variables

“Value added” is employed as an indicator of IC measurement in a firm. IC is categorized into three main components:

- Structural capital
- Human capital
- Capital employed capital

Descriptive statistic, correlation analysis, and multiple regression are used to analyse the data.

Hypothesis of the Study

H₁: There is a significant relationship between intellectual capital components and a firm's return on assets.

H₂: There is a significant relationship between intellectual capital components and a firm's return on equity.

H₃: There is a significant relationship between intellectual capital components and a firm's asset turnover.

Analysis and result

Analysis shows that there is negative correlation between the ROA and intellectual

components that is HC, SC & CEE irrespective of 5 companies. It is also observed that there is negative correlation between the intellectual components and the return on equity with respect to Ashok Leyland, Eicher Motors, Hero Motocorp, Mahindra & Mahindra but for Bajaj Auto there is a positive correlation. Asset turnover is correlated with the intellectual components positively Ashok Layland, Bajaj Auto, Hero Motocorp, Mahindra & Mahindra and in case of Eicher Motors it is negatively correlated.

ASHOK LEYLAND

TABLE OF CORRELATION

	<i>VAIC</i>	<i>ROA</i>	<i>ROE</i>	<i>ATO</i>
<i>VAIC</i>	1			
<i>ROA</i>	-0.38385	1		
<i>ROE</i>	-0.05863	-0.87275	1	
<i>ATO</i>	0.679692	0.365514	-0.69582	1

REGRESSION ANALYSIS

	MULTIPLE R	R SQUARE	ADJUSTED RSQUARE	STANDARD ERROR
<i>ROA</i>	0.383853	0.1473	-0.1368	26.16
<i>ROE</i>	0.05	0.0034	-0.32875	28.2836
<i>ATO</i>	0.67962	0.461981	0.282642	20.7817

BAJAJ AUTO

TABLE OF CORRELATION

	<i>VAIC</i>	<i>ROA</i>	<i>ROE</i>	<i>ATO</i>
<i>VAIC</i>	1			
<i>ROA</i>	-0.96694	1		
<i>ROE</i>	0.533422	0.68446	1	
<i>ATO</i>	0.97912	0.95268	0.4864	1

REGRESSION ANALYSIS

	MULTIPLE R	R SQUARE	ADJUSTED RSQUARE	STANDARD ERROR
ROA	0.96694	0.93492	0.913309	1.17956
ROE	0.533422	0.284539	0.04605	3.88765
ATO	0.97912	0.958676	0.944902	0.934314

EICHER MOTORS

TABLE OF CORRELATION

	<i>VAIC</i>	<i>ROA</i>	<i>ROE</i>	<i>ATO</i>
<i>VAIC</i>	1			
<i>ROA</i>	-0.09087	1		
<i>ROE</i>	-0.20551	-0.88241	1	
<i>ATO</i>	-0.02362	-0.9272	0.98286	1

REGRESSION ANALYSIS

	MULTIPLE R	R SQUARE	ADJUSTED RSQUARE	STANDARD ERROR
ROA	0.090865	0.008256	-0.32232	10.46493
ROE	0.205506	0.042233	-0.27702	10.28411
ATO	0.023624	0.00558	-0.33259	10.50547

HERO MOTOCORP

TABLE OF CORRELATION

	<i>VAIC</i>	<i>ROA</i>	<i>ROE</i>	<i>ATO</i>	<i>MB</i>
<i>VAIC</i>	1				
<i>ROA</i>	-0.99292	1			
<i>ROE</i>	-0.82304	0.849772	1		
<i>ATO</i>	0.900072	-0.85527	-0.51506	1	

REGRESSION ANALYSIS

	MULTIPLE R	R SQUARE	ADJUSTED RSQUARE	STANDARD ERROR
ROA	0.95575	0.913458	0.884611	1.121266
ROE	0.51311	0.263282	0.01771	3.271494
ATO	0.725453	0.526283	0.368377	2.623344

MAHINDRA AND MAHINDRA

TABLE OF CORRELATION

	<i>VAIC</i>	<i>ROA</i>	<i>ROE</i>	<i>ATO</i>	<i>MB</i>
<i>VAIC</i>	1				
<i>ROA</i>	-0.95575	1			
<i>ROE</i>	-0.51311	0.535359	1		
<i>ATO</i>	0.725453	-0.54943	-0.08692	1	

REGRESSION ANALYSIS

	MULTIPLE R	R SQUARE	ADJUSTED RSQUARE	STANDARD ERROR
ROA	0.090865	0.008256	-0.32232	10.46493
ROE	0.205506	0.042233	-0.27702	10.28411
ATO	0.023624	0.0058	-0.33259	10.50547

Findings and Research implications Ashok Leyland:

The study concludes that the correlation between the factors ROA and ROE are negative but asset turnover is positive. With reference to the variables ROA, ROE & AT it can be observed that all the variables over the period shows a gradual increase. This trend indicates a positive performance of the company. With reference to the efficiency indicators of VAIC it shows that HCE and SCE shows a declining trend but the efficiency of CEE shows a positive trend. All variables except ROE do not have a significant impact on VAIC. The company's intellectual capital components do not have a significant impact on the company's financial performance.

Bajaj auto:

The study concludes that the correlation between the factors, ROE, AT are positive but ROA has a negative correlation. With reference to the variables ROA, ROE, AT it can be observed that all the variables over the period shows a gradual decrease. This trend indicates a negative performance of the company. With reference to the efficiency indicators of VAIC it shows that HCE, CEE and SCE shows a declining trend. All variables do not have a significant impact on VAIC. The company's intellectual capital components do not have a significant impact on the company's financial performance. The return on equity, Return on asset, Asset turnover and market to book value are not affected by the influence of the intellectual capital components of the firm. The tests also signify that that any change in the intellectual capital will not have a significant effect on the company's financial performance.

Eicher Motors

The study concludes that the correlation between the factors are negative. With reference to the variables ROA, AT it can be observed that all the variables over the period shows a gradual decrease. ROE shows a positive trend. With reference to the efficiency indicators of VAIC it shows that HCE and CEE shows a declining trend between the period. But SCE remains the same. All variables have a significant impact on VAIC. The company's intellectual capital components have a significant impact on the company's financial performance. The return on equity, Return on asset; Asset turnover and market to book value are influenced by the intellectual capital components of the firm. The tests also signify that that any change in the intellectual capital will have a significant effect on the company's financial performance.

Hero Motocorp

The study concludes that the correlation between the factors ROE and ROA is negative. AT and MB are positive. With reference to the variables AT it can be observed that the variables over the period shows a gradual decrease. This trend indicates a negative performance of the company. ROE shows a positive trend and ROA is stable. With reference to the efficiency indicators of VAIC it shows that HCE, CEE and SCE shows a declining trend. Some of the variables do not have a significant impact on VAIC. The company's intellectual capital components do not have a significant impact on ROA and AT. Return on Equity and market to book value has an influence on the intellectual capital

components of the firm.

Mahindra and Mahindra

The study concludes that the correlation between the factors ROE and ROA is negative. AT is positive. With reference to the variables AT and MB it can be observed that the variables over the period show a gradual decrease. This trend indicates a negative performance of the company. ROE and ROA shows a positive trend. With reference to the efficiency indicators of VAIC it shows that HCE, CEE and SCE show a declining trend. All the variables have a significant impact on VAIC. The company's intellectual capital components have a significant impact on the financial performance of the firm.

Managerial implications

ROE, ROA and ATO are rooted in the company's tangible asset & also part of a firm's products and services delivered to its customers. So, company can't consider IC separately from profit. That is the capitals relating to human, structure, and capital employed fundamentally form a basis for a firm's ability to utilize tangible assets for manufacturing goods & services to its stakeholder. IC is considered as the important aspects in the organization. So, there is a growing need for research on intangibles by IC reports, which replace outdated financial statements.

Conclusion

Organizations are performing better by acquisitions, holding and effective utilization of intangible assets which are important for competitive benefits and performance. It is important to know the impact of VAIC and its components on ROE, ROA and ATO. The findings show that the aggregate measure of VAIC has a positive significant effect on ROE, ROA and ATO. This suggests that increasing of VAIC leads to enhancing the market valuation, profitability and productivity.

Limitation of the study and scope for future study

Data for this research was collected from a particular index of a given sectors of findings cannot be generalized to a larger population. The study has considered only five years of data for its analysis. The study considers only three components of intellectual components. From Indian automobile sector Ashok Leyland, Bajaj Auto, Eicher Motors, Hero Motocorp, Mahindra & Mahindra were taken for this study. So, there is scope to do the research on other automobile companies from other countries.

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A Comparative Study on Risk and Return of Automobile, Banking, Pharmaceutical, Infrastructure Sectors

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Abstract

This study aimed to find out risk and return of automobile, banking, pharmaceutical, infrastructure to evaluate the performance of selected sector stocks and to analyze the risk and return category. For the purpose of this study 12 stocks are analyzed from four sectors such as automobile, banking, pharmacy, infrastructure sectors with 251 trading days of financial year 2017-2018. This study intended to find out which stock among the four sectors provides better returns to the investors. Risk means possibility of loss or injury. Often the risk is interchangeably used with uncertainty. In uncertainty, the possible events and probabilities of their occurrence are not known, before investing investor investible wealth in the stock, investor analyses the risk associated with a particular stock. The actual return investor receives from a stock may vary from their expected return and the risk is expressed in terms of variability of return. Various analyzing tools, such as mean, standard deviation, variance, beta, correlation, capital asset pricing model plays a vital role in this study, in the analysis area of this study. It is found that all among the four sectors, automobile and banking are the best sectors to an investor to invest their sources in the share market. Other sectors like infrastructure and pharmacy have scope for the investor who would like to invest in long term perspective, if an investor plan for short term investment high risks involved. Most of the investors were curious to gain profits in a short term perspective, thus this study found to minimize the losses and to earn profit in short term with minimum risk and maximum returns.

1.1 Introduction

The present economic scenario is exciting and witnessing a process of ever-increasing globalization and innovation in the financial markets. The financial markets and institutions have undergone significant changes keeping pace with the changing needs of market participants. Along with the rise of private finance, the financial markets are witnessing an enhanced role of National Governments through sovereign wealth funds, venture capital funds and hedge funds, thus adding new dimension to the market dynamics.

1.2 Statement of the Problem

Estimating the required return on investment to be made in the stock market is a challenging

job for an ordinary investor. Different market models and techniques are being used for taking suitable investment decisions. There is a dilemma regarding which sector to be worth invested. So the study is directed to find the best sector which is to be worth invested among the four selected sectors namely, automobile, banking, pharmacy, infrastructure sector and also to find the particular stocks which are worth invested among the selected sectors.

1.5 Objectives of The Study

- 1.To identify the best stocks selected sectors namely, automobile, banking, pharmacy, infrastructure sector from maximum return basis.
2. To compare the risk and return of stock sectors wise as a whole.
- 3.To find out which sector has given the better return compared to other Sectors.
- 4.To compare the sectors index return to the benchmark index (NIFTY).
5. To suggest the client to select right stock and sector selection to gain high return.

2. The Review of Literature

The analysis makes a separation between operating and financing items in the financial statements. This is inspired by the Modigliani and Miller notion that it is the operating activities that generate value, not the (zero net-present-value) financing activities. The separation also arises from an appreciation that financial assets and liabilities are typically close to market value in the balance sheet and thus are already valued, but not so the operating assets and liabilities. Our structured approach to identifying ratios contrasts to the purely empirical approach in Ou and Penman (1989). That paper identified ratios that predicted earnings changes in the data.

P.Varadharajan and Dr. P Vikkraman (2011) created a Portfolio to reduce the risk of the investors in the stocks or commodities. To create a portfolio the individual risk and returns are evaluated and selected. From the calculation the better stock s are selected to form the portfolio. In this research, the risk and return involved in a banking sector are found. 15 banks were selected and from the calculation based on the William Sharpe index model. After the analysis based on William Sharpe Index model, four banks were selected to form the portfolio. Out of the four the proportion to be invested was also calculated. This analysis was done not considering short sales option. The portfolio was 43 also analyzed, it's consideration with the sales. From this the low performing stocks are found and can be sold. The out performing stocks can be held for long.

Dr. Rachna Agarwal and Jyoti Mangla (2014) argue that since the birth of the Capital Asset Pricing Model (CAPM), enormous efforts have been devoted to evaluate the validity of this

model. No one can deny its unique breakthrough and valuable contribution to the world of financial economics. Some empirical studies conducted, have appeared to be in harmony with the principles of CAPM while others contradict the model. These differences in previously conducted studies serve as a major stimulating factor to researchers ‘curiosity verifies its practical applicability of the CAPM. The aim of this paper is to study if the CAPM holds in the automobile sector in Indian Stock Market (NSE). The present paper is a sincere attempt to find answers of the questions by applying CAPM -Is higher beta yields higher expected return? Is there exist linearity between the stock beta and the expected return? For the same objectives, the paper is focusing to investigate the under & over valued stock of six firms of automobile sector.

Mitra, Anupam (2016) reviewed the Portfolio is collection of bonds, warrants, future contracts, stocks, ETFs, real estate etc., where an investor wants to invest. In this paper we shall see how an investor should go about selecting the one best portfolio to meet his needs. Or, more explicitly, how should an investor go about selecting securities to purchase and deciding how many dollars to invest in each. For the comparison of Sensex portfolio with Nifty portfolio famous Markowitz’s Modern Portfolio Theory (MPT) has been used. For the performance evaluation of both of these portfolios Sharpe Index has been used. This paper presents a simplified perspective of Markowitz’s 52contributions to Modern Portfolio Theory.

3. Research Design and List of Sample For The Study

The sample is NSE- 4 index selected for the study to determine the expected return and their beta. The top 3 companies of each selected sector are taken from the NSE stock exchange and compare their return with market return.

Table 3.1 List of Sample Companies

sectors	Stock 1	Stock 2	Stock 3
Auto mobile	Tata motors	Maruti	Eicher motors
Pharmacy	Dr.Reddy	Cipla	Aurobindopharma
Banking	State bank of India	Yes bank	ICICI bank
Infrastructure	DLF	Larsen and turbo	Reliance infra

4. Data Preparation & Analysis

Data Preparation and presentation is the process of collecting, editing, consolidating and analyzing to arrive appropriate findings. Data was collected from company website. The

collected data was analyzed using Excel software package and the data presentation and interpretations were explained in the following parts of this chapter. The statistical tools applied for the analysis were Standard Deviation and Beta, Average Return, Correlation

Table 4.1 Index value of NSE for the financial year of 2016-2017

Mean	18.40%
Standard deviation	0.007874
variance	0.00006200

Interpretation:

Table 4.1 exhibits that value of NSE overall performance of financial year 2017-2018. It helps to bench marks the other sectors indices. It gained the mean value of 18.40%. Its standard deviation value is 0.007874. It also gained the variance value of .000620.

Automobile Sector

Table 4.2 Statistical analysis of NIFTY AUTO

Mean	22.97%
Standard deviation	0.01231
Variance	0.00015
Beta	0.52425
CAPM	13.45%
Correlation	0.81944

Interpretation:

Table 4.2 shows that the auto sector financial years 2017-2018 mean value of 22.97%. Standard deviation of 0.01231. It has the Variance of 0.00015. The beta risk value of 0.8144. and it shows the CAPM value of 13.45%. It is positively correlated with the value of 0.81944. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.3 Statistical analysis of Tata motors from automobile sector

Mean	0.11%
Standard deviation	0.2284
Variance	0.00052
Beta	-0.0226
Correlation	-0.0078
CAPM	8.18%

Interpretation:

Table 4.3 shows that the Tata motors financial year 2017-2018 mean value of 0.11%. Standard deviation of 0.2284. It has the Variance of 0.00052. The beta risk value of -0.0226 and it shows the CAPM value of 8.18%. It is negatively correlated with the value of -0.0078. So it gives negative change on its stock price movements compared with benchmark index.

Table 4.4 Statistical analysis of Eicher motors from automobile sector

Mean	0.13%
Standard deviation	0.01836
Variance	0.00034
Beta	0.03282
Correlation	0.01406
CAPM	7.74%

Interpretation:

Table 4.4 shows that the Eicher motors financial year 2017-2018 mean value of 0.13%. Standard deviation of 0.01836. It has the Variance of 0.00034. Its CAPM value is 7.74%. The beta risk value of 0.03282 and it also correlated with the value of 0.01406. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.5 Statistical analysis of Maruti from automobile sector

Mean	0.21%
Standard deviation	0.01553
Variance	0.00024
Beta	1.30712
Correlation	0.66158
CAPM	2.19%

Interpretation:

Table 4.5 shows that the Maruti motors financial year 2017-2018 mean value of 0.21%. Standard deviation of 0.01553. It has the Variance of 0.00024. Its CAPM value is 2.19%. The beta risk value of 1.30712 and it also correlated with the value of 0.66158. So it gives positive change on its stock price movements compared with benchmark index.

BANKING SECTOR

Table 4.6 Statistical analysis of NIFTY BANK

Mean	0.12%
Standard deviation	0.0105233
Variance	0.00011075
Beta	0.6514804
Correlation	0.8707271
CAPM	8.01%

Interpretation:

Table 4.6 shows that the results related to nifty bank financial year 2017-2018 mean value of 0.21%. Standard deviation of 0.0105233. It has the Variance of 0.00011075. Its CAPM value is 8.01%. The beta risk value of 0.6514804 and it also correlated with the value of 0.8707271. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.7 Statistical analysis of State bank of India SBI Bank

Mean	0.18%
Standard deviation	0.01930175
Variance	0.000372558
Beta	0.242373
Correlation	0.598833506
CAPM	17.08%

Interpretation:

Table 4.7 shows that the results related to SBI Bank financial year 2017-2018 mean value of 0.18%. Standard deviation of 0.01930175. It has the Variance of 0.000372558. Its CAPM value is 17.08%. The beta risk value of 0.242373 and it also correlated with the value of 0.598833506. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.8 Statistical analysis of ICICI BANK

Mean	0.08%
Standard deviation	0.02022
Variance	0.00041
Beta	0.65413
Correlation	0.6244
CAPM	17.18%

Interpretation:

Table 4.8 shows that the results related to ICICI bank financial year 2017-2018 mean value of 0.08%. Standard deviation of 0.02022. It also has the Variance of 0.00041. Its CAPM value is 17.18%. The beta risk value of 0.65413 and it also correlated with the value of 0.6244. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.9. Statistical analysis of YES BANK

Mean	0.26%
Standard deviation	0.01791
Variance	0.00032
Beta	1.41258
Correlation	0.62119
CAPM	88.32%

Interpretation:

Table 4.9 shows that the results related to yes bank financial year 2017-2018 mean value of 0.26%. Standard deviation of 0.01791. It also has the Variance of 0.00032. Its CAPM value is 88.32%. The beta risk value of 1.41258 and it also correlated with the value of 0.62119. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.10. Pharmacy sector Statistical analysis of NIFTY PHARMA

Mean	-3.65%
Standard deviation	0.01033
Variance	0.00011
Beta	0.41947
Correlation	0.5505
CAPM	12.36%

Interpretation:

Table 4.10 shows that the results related to yes bank financial year 2017-2018 mean value of -3.65%. Standard deviation of 0.01033. It also has the Variance of 0.00011. Its CAPM value is 12.36%. The beta risk value of 0.41947 and it also correlated with the value of 0.5505. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.11 Results Statistical analysis of Cipla

Mean	0.07%
Standard deviation	0.01426
Variance	0.0002
Beta	-0.0346
Correlation	-0.0191
CAPM	8.27%

Interpretation:

Table 4.11 shows that the results related to Cipla financial year 2017-2018 mean value of 0.07%. Standard deviation of 0.01426. It also has the Variance of 0.0002.. Its CAPM value is 8.27%. The beta risk value of -0.0346 and it also correlated with the value of -0.0191. So it gives negative change on its stock price movements compared with benchmark index.

Table 4.12 Statistical analysis of Aurobindo Pharma

Mean	-0.01%
Standard deviation	0.0192929
Variance	0.0003722
Beta	1.1691484
Correlation	0.4771049
CAPM	-5.84%

Interpretation:

Table 4.12 shows that the results related to Aurobindo pharma financial year 2017-2018 mean value of -0.01% and Standard deviation of 0.0192929. It also has the Variance of 0.0003722. Its CAPM value is -5.84%. The beta risk value of 1.1691484 and it also correlated with the value of 0.4771049. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.13 Statistical analysis of Dr.Reddy

Mean	-0.04%
Standard deviation	0.01496
Variance	0.00022
Beta	0.47841
Correlation	0.25138
CAPM	-0.50%

Interpretation:

Table 4.13 shows that the results related to Dr.Reddy financial year 2017-2018 mean value of -0.04%. Standard deviation of 0.01496.It also has the Variance of 0.00022.Its CAPM value is -0.50%. The beta risk value of 0.47841 and it also correlated with the value of 0.25138.So it gives positive movements in price compared with benchmark index.

Table 4.14 Statistical analysis of NIFTY INFRA

Mean	-18%
Standard deviation	0.010374
Variance	0.000108
Beta	-1.08548
Correlation	-0.8206
CAPM	-49.43%

Interpretation:

Table 4.14 shows that the results related to nifty infra financial year 2017-2018 mean value of -18%. Standard deviation of 0.010374.It also has the Variance of 0.000108.Its CAPM value is -49.43%. The beta risk value of -1.08548 and it also correlated with the value of -0.8206.So it gives negative change on its stock price movements compared with benchmark index.

Table 4.15 Statistical analysis of DLF

Mean	-0.04%
Standard deviation	0.029461
Variance	0.000868
Beta	1.764893
Correlation	0.621442
CAPM	-50%

Interpretation:

Table 4.15 shows that the results related to DLF financial year 2017-2018 mean value of -0.04%. Standard deviation of 0.02461. It also has the Variance of 0.000868. Its CAPM value is -50%. The beta risk value of 1.76483 and it also correlated with the value of 0.621442. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.16 Statistical analysis of L&T

Mean	-0.09%
Standard deviation	0.0153897
Variance	0.0002368
Beta	1.175151
Correlation	0.72381
CAPM	-46.66%

Interpretation:

Table 4.16 shows that the results related to L&T financial year 2017-2018 mean value of -0.09%. Standard deviation of 0.0153897. It also has the Variance of 0.0002368. Its CAPM value is -46.66%. The beta risk value of 1.175151 and it also correlated with the value of 0.72381. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.17 Statistical analysis of reliance infra

Mean	0.02%
Standard deviation	0.022714
Variance	0.000516
Beta	1.477897
Correlation	0.674958
CAPM	-48%

Interpretation:

Table 4.17 shows that the results related to reliance infra financial year 2017-2018 mean value of 0.02%. Standard deviation of 0.022714. It also has the Variance of 0.000516. The beta risk value of 1.477897 and it also correlated with the value of 0.674958. Its CAPM value is -48%. So it gives positive change on its stock price movements compared with benchmark index.

Table 4.18 - Standard deviation, return and the respective ranks of automobile sector

Stock	Standard deviation	Return	Ranks
Tata motors	0.2284	27.61%	3
Eicher motors	0.01836	32.63%	2
Maruti	0.01553	52.71%	1

Interpretation:

The Figure 4.18 shows that the risk and return of automobile sector Maruti is the stock that denotes the low risk of 0.01553 and the highest return value of 52.71%. Following by Eicher motor have the least value of risk of 0.01836 and the highest return value of 32.63%. In risk and return basis the Maruti have perfect probability to gain huge return.

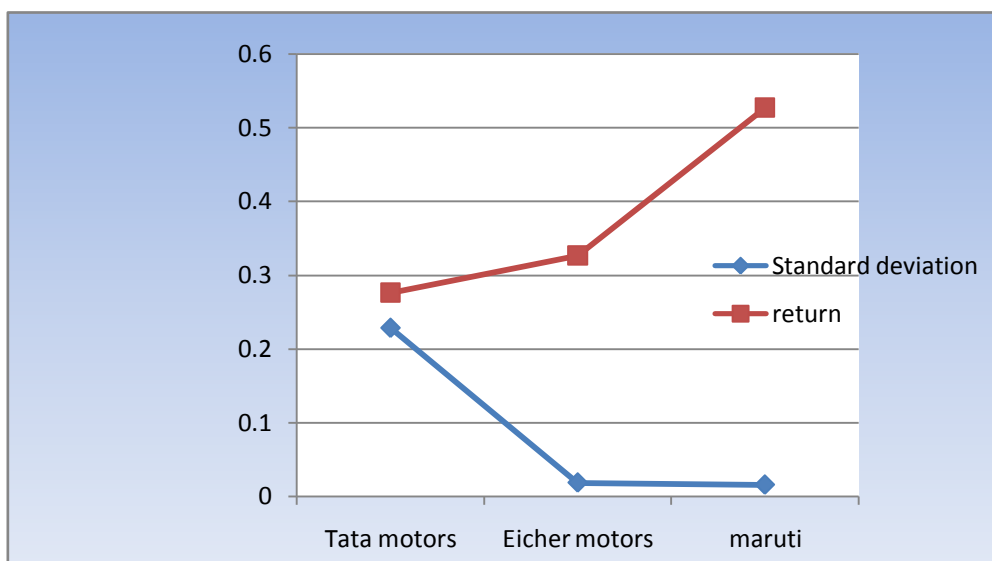


Figure 4.1 - Standard deviation and return and the respective ranks of automobile sector

Table 4.19 - Standard deviation, return and the respective ranks of banking sector

Stock	Standard deviation	Return	Ranks
SBI Bank	0.01930175	45.18%	2
ICICI Bank	0.02022	20.08%	3
YES Bank	0.01791	65.26%	1

Interpretation:

Table 4.19 shows the risk and return of banking sector. In that yes bank gains huge return of 65.26% and it also have low risk probability of 0.01791. Following by SBI bank have high probability of to earn return 45.18% and it also has low risk probability of 0.01930175.

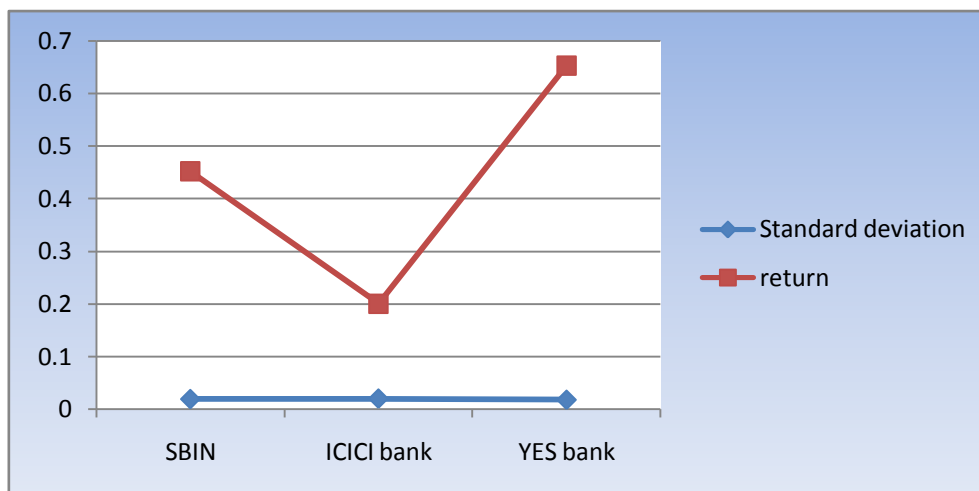


Figure 4.2 - Standard deviation and return and the respective ranks of banking sector

Table 4.20 Standard deviation, return and the respective ranks of pharmacy sector

Stock	Standard deviation	Return	Ranks
Cipla	0.01426	17.57%	1
Aurobindo pharma	0.0192929	-2.51%	2
Dr.Reddy	0.01496	-10.04%	3

Interpretation:

Tables 4.20 shows that in pharmacy sector Cipla have the highest probability to gain return it also have lowest risk value of 0.01426. None of other stocks have the probability to obtain positive return.

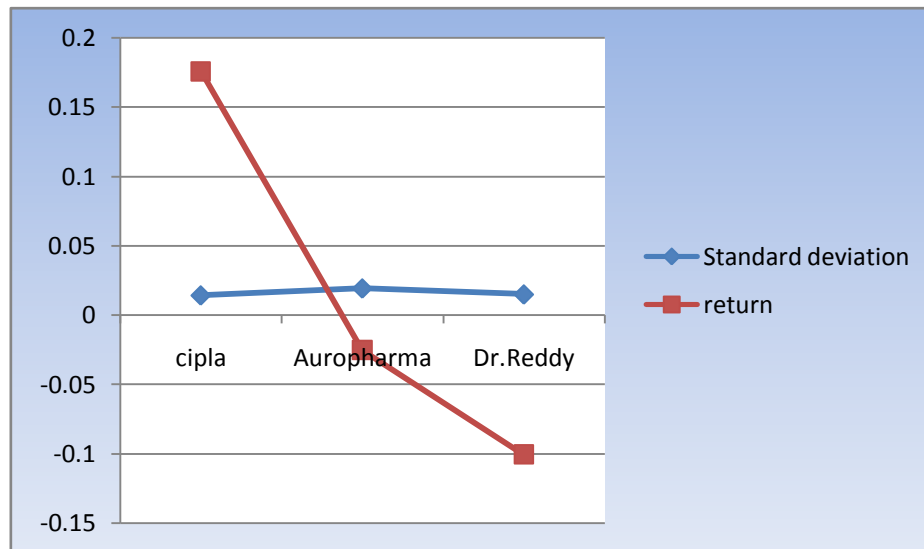


Figure 4.3 - Standard deviation and return and the respective ranks of pharmacy sector

Table 4.21 - Standard deviation, return and the respective ranks of infrastructure sector

Stock	Standard Deviation	Return	Ranks
DLF	0.0294613	-10.02%	2
L&T	0.0153897	-22.59%	3
Reliance infra	0.022714	5.02%	1

Interpretation:

Table 4.21 shows that in infrastructure sector reliance infra have the highest probability to gain return 5.02 % it also have lowest risk value of 0.022714. None of other stocks have the probability to obtain positive return.

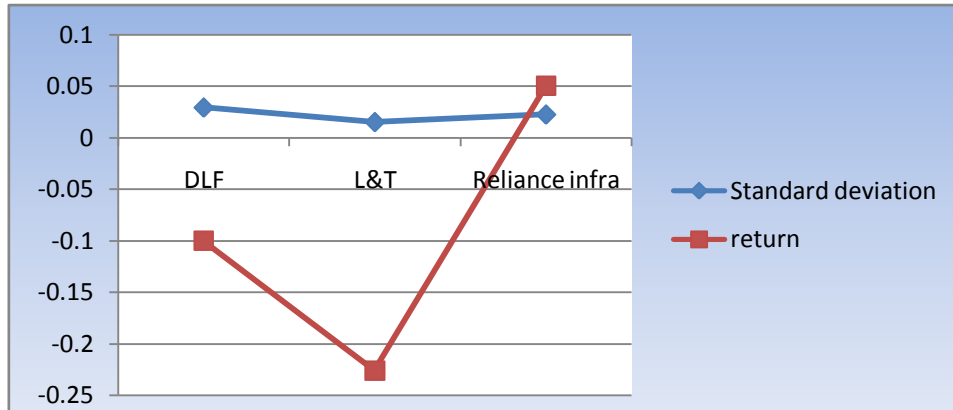


Figure 4.6.4 showing the standard deviation and return.

Calculation of Capital Asset Pricing Model

Table no 4.7.1: Banking sector

Stock	Risk free return	Beta	Market return	CAPM
Banking Sector	6.27	0.651489	0.000730	2.185639
SBI bank	6.27	0.244294	0.001197	4.738571
ICICI Bank	6.27	0.654128	0.001197	2.169388
YES Bank	6.27	1.008376	0.001197	-2.585185

Interpretation:

4.7.1 Shows the calculation of capital asset pricing model with index return and risk. Among banking sector state bank of India gained CAPM 4.7. It shows linear relationship between the return required on an investment.

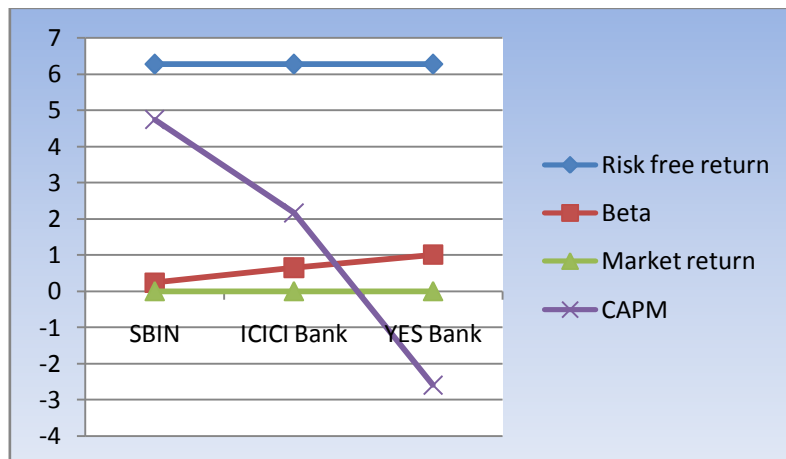


Figure no 4.7.1: Figure showing the calculation of Capital Asset Pricing Model of banks

Table no 4.7.2 Auto Mobile sector

Stock	Risk free return	Beta	Market return	CAPM
Auto Mobile Sector	6.27	0.524250	0.000730	2.983335
Tata motors limited	6.27	-0.022553	0.000920	6.411681
Eicher motor Limited	6.27	0.032816	0.000920	6.064249
Maruti Suzuki	6.27	1.307120	0.000920	-1.924440

Interpretation:

4.7.2 Shows the calculation of capital asset pricing model with index return and risk. Among auto mobile sector Tata motor gained CAPM 6.4. So it shows linear relationship between the return required on an investment at the Tata motor.

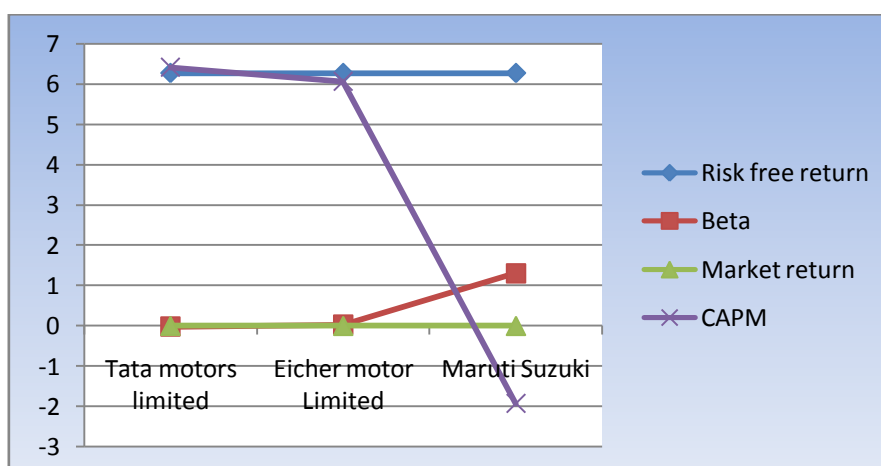


Figure no 4.7.2: Figure showing the calculation of Capital Asset Pricing Model of Auto Mobile Sector

Table no 4.7.3 Pharma Sector

Stock	Risk free return	Beta	Market return	CAPM
Pharma	6.27	0.419471	0.000730	3.640229
Aurobindopharma	6.27	1.169148	-0.000100	-1.060677
Dr.Reddy Laboratories	6.27	0.478407	-0.000100	3.270321
Cipla	6.27	-0.034638	-0.000100	6.486945

Interpretation:

4.7.3 Shows the calculation of capital asset pricing model with index return and risk. Among pharmacy sector Cipla gained CAPM 6.4. So it shows linear relationship between the return required on an investment at the Cipla 6.4.

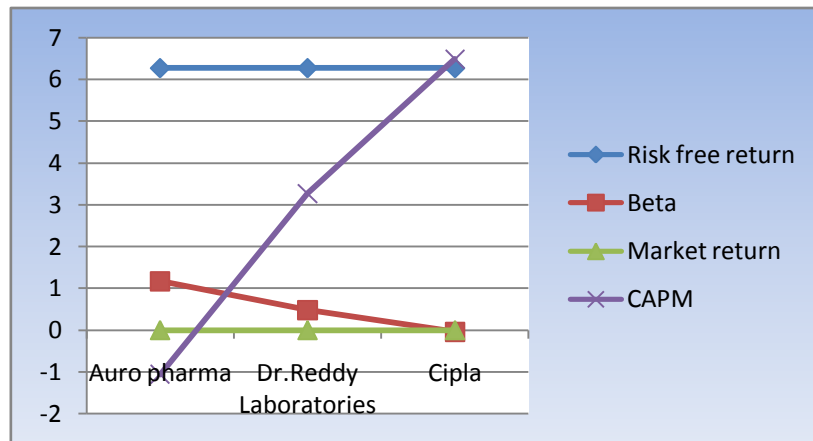


Figure no 4.7.3: Figure showing the calculation of Capital Asset Pricing Model of Pharma Sector

Table 4.7.4 Infrastructure Sector

Stock	Risk free return	Beta	Market return	CAPM
Infrastructure Sector	6.27	-1.085480	0.000730	13.07517
DLF	6.27	1.764893	-0.000700	-4.797115
L&T	6.27	1.175515	-0.000700	-1.101302
Reliance infra	6.27	1.477897	-0.000700	-2.997449

Interpretation:

4.7.4 Shows the calculation of capital asset pricing model with index return and risk. Among infrastructure sector L&T gained CAPM -1.1. So it shows linear relationship between the return required on an investment at the L&T -1.1.

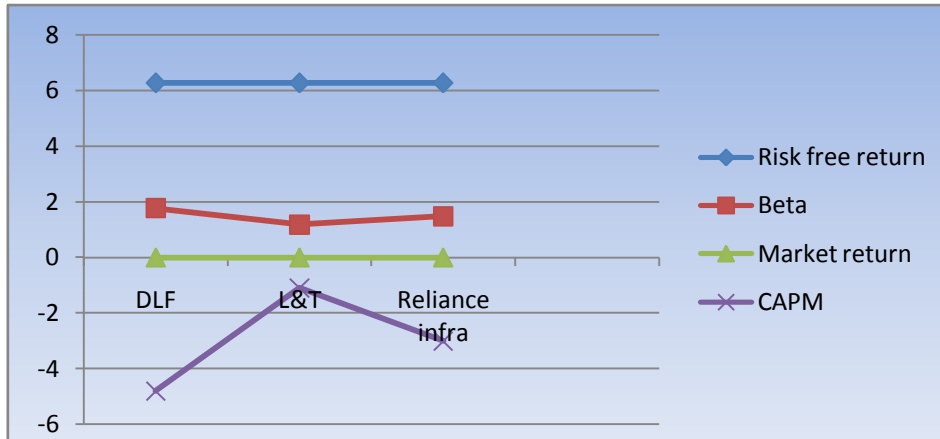


Figure no 4.7.1: Figure showing the calculation of Capital Asset Pricing Model of Infrastructure Sector

5. Findings Summary and Interpretations

5.1. Average of return:

- In automobile sector Maruti is the stock that denotes highest return value of 52.71%. Following by Eicher motor have highest return value of 32.63%. Return basis the Maruti have perfect probability to gain huge return. Investors should focus on Maruti for gain more returns.
- In banking sector yes bank gains huge return of 65.26%. Following by SBI bank have high probability of to earn return 45.18%. Investors should focus on yes bank for gain more returns.
- In pharmacy sector Cipla have the highest probability to gain return value 17.57%. None of other stocks have the probability to obtain positive return. Investors should focus on Cipla for gain more returns.
- In infrastructure sector reliance infra have the highest probability to gain return 5.02%. None of other stocks have the probability to obtain positive return. Investors should focus on reliance infra for gain more returns.
- So average return can be earned through only banking and automobile sector is justified by above average return calculation.

Beta β :

- The risk in automobile sector Maruti is the stock that denotes the low risk of 0.01553 at Following by Eicher motor has the least value of risk of 0.01836. So investors invest in Maruti provides a safer side to avoid risk in auto mobile sector.

- The risk in banking sector. In that yes bank have low risk probability of 0.01791. Following by SBI bank have low risk probability of 0.01930175. So investor can invest their sources in yes bank to safe guard from unwanted losses.
- In pharmacy sector CIPLA have lowest risk value of 0.01426. Other stocks have the highest risk values. Only investing in CIPLA give a safer side to the investors.
- In infrastructure sector reliance infra have lowest risk value of 0.022714. Other stocks were high risk involves in it. So investor should focus on the reliance infra for a risk free return.

Capital asset pricing model:

- In banking sector capital asset pricing model with index return and risk. Among banking sector state bank of India gained CAPM 4.7. It shows linear relationship between the return required on an investment.
- In auto mobile sector capital asset pricing model with index return and risk. Among auto mobile sector Tata motor gained CAPM 6.4. So it shows linear relationship between the return required on an investment at the Tata motor
- In pharmacy sector capital asset pricing model with index return and risk. Among pharmacy sector Cipla gained CAPM 6.4. So it shows linear relationship between the return required on an investment at the Cipla 6.4.
- In infrastructure sector capital asset pricing model with index return and risk. Among infrastructure sector L&T gained CAPM -1.1. So it shows linear relationship between the return required on an investment at the L&T -1.1.

5.2.1Investor towards rate of return stock basis:

Return among stocks:

The maximum gain that to be obtained by the yes bank 65.26% stock from the banking sector. Following by in automobile sector Maruti 52.71% plays a significant role to obtain more returns. So stock wise these two stocks are advised for clients. A investor can earn more gains from yes bank and Maruti in short term and long term.

Return among index:

The maximum gain that to be obtained by the NIFTY BANK 30.12% following by NIFTY AUTO gained 22.97% so index wise NIFTY BANK and NIFTY AUTO are advised for the clients. Index wise investors are advised to invest their sources in NIFTY BANK and NIFTY AUTO in long term and short term perspective.

Negative return among stock:

The negative returns that given by the stocks are L&T from infrastructure have provided the negative return of -22.59% following by Dr.Reddy has gained the negative return of -10.04%. These stocks should to be avoidable by the client for short term basis. Here the risk of loss was identified and investment safeguards from risk of negative return.

Negative return among index:

The negative return among the four indexes wise the infrastructure provides the negative return of -18% following by pharmacy provides the negative return of -3.65%.

5.2.2 Risk and return comparative basis:**Low risk with high return stock wise:**

In banking stock yes bank has 0.01791 risk value and return of 65.26% of rate of return. The risk and return of automobile sector Maruti is the stock that denotes the low risk of 0.01553 and the highest return value of 52.71%. Following by Eicher motor have the least value of risk of and the highest return value. In risk and return basis the Maruti have perfect probability to gain huge return. So it is advised for investor.

Low risk with high return sector index wise:

The risk and return of auto mobile sector NIFTY AUTO have high risk probability of 0.01231 and the return of 22.97% following by NIFTY BANK have high risk probability of 0.01052393 and the return of 30.12% and other two sectors are provides negative returns so that does not taken for consideration in this part.

High risk with low return stock wise:

In banking ICICI bank have high risk value of 0.02022 and low return of 20.08%. Following by Aurobindopharma in pharmacy sector have high risk of 0.0192929 an return of -2.51%. In infrastructure sector DLF have high risk value of 0.0294613 and it has low return value of -10.02%. In automobile sector 0.2284 highest risk value obtained by Tatamotors and it also have lowest return of 27.61% so a investor should avoid these stock if the index provides a positive return.

Highest risk with lowest return index basis:

Automobile sector have the highest risk value of 0.01231 following by banking sector have

the highest risk value of 0.01052393 but both of these sectors provides positive return over its index. So in lowest return or negative return gained sector wise infrastructures have risk value of 0.010374 and it also gained low return of -18%. Infrastructure sector considering as the highest risk with lowest return. Banking and automobile have risk but if a investor invest money in long term basis it may not provides a negative results to an investor.

5.2.3 Investors towards rate of return sector basis:

The maximum returns that can be obtain by the investor only through the Banking sector 30.12% and followed by automobile sector both plays a vital role because overall rate of return in sector basis both of the sectors give positive impacts towards return earning basis. It provides positive return among its index (NSE).

5.2.4 Sector wise index return to the benchmark index:

From the overall analysis the maximum index returns that can be provided through the BANK and NIFTY AUTO. Last financial year NIFTY (NSE) gained 18.40% from 251 trading days. Among these four sectors banking and auto mobile sectors were provides positive return among the bench mark index of NIFTY (NSE).

5.2.5 Right stock selection overall performance:

From the overall analysis from the study justifies that the client or an investor are advised to make huge investments on banking and auto mobile. In this sector also have huge risks also but in stock market risks leads to maximum gains. Thus this study advised banking and auto mobile sector for better investments for better gains. Stock wise Yes bank and Maruti are advised to the investors.

5.3 Conclusion:

Out of the four sectors study, all stocks showed an average return than in comparison of the market return. Stock market has the perfect potential to gain more profits, but it also involves with high risk. This study justifies that auto mobile and banking sectors have a good scope in its performance comparing to pharmacy and infrastructure, sectors investors can safe guard their investments by investing in these specific sectors. To survive in share market investments investors can go with banking and automobile sectors, which are safe to reduce their risk and to obtain higher returns.

Without risk the maximum gain is not possible. Thus this study justifies that automobile and banking sectors have high risk value involves with high market return.

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An Empirical Study on Information and Knowledge Management Practices in Malaysia Chemicals (M) Pvt Ltd

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Abstract

As one's own knowledge base and abilities continue to grow the nurturing of the flow of explicit and tacit knowledge has become more critical. Companies around the globe are experiencing rapid changing activities in the way they do trade and stay competitive. These environments are also affecting Malaysia Chemicals (M) Pvt. Ltd, a company involved in the production of Purified Terephthalic Acid (PTA) which product is mainly used by the textile industries and bottling manufacturers. Their business activities too need to gain the leverage speed and responsiveness to customer needs and meet the opportunities and stay relevant.

The knowledge management director and his team members in Malaysia Chemicals (M) Pvt. Ltd. are given the task and responsibility of drawing up the business plan and executing as well as implementing a continuous and effective knowledge sharing activities in the organization so as to gain a competitive advantage and business opportunities in the competitive global market. They must make sure that tacit and explicit knowledge are well documented and ensure that sound implementation plans are put in place and action taken to evaluate in detail and apply control measures to ensure target market and revenues are on track.

To stay competitive and retain its core employees whose tacit knowledge are an important tool and asset to the organization, knowledge sharing activities and steps have to be taken to rectify and overcome existing barriers and knowledge sharing practice becomes a standard norm and the organization a learning organization.

1. Introduction

In the global business market, information drives the creation of wealth and prosperity and one of the factors that drives an organization to have a competitive advantage over their business rivals is the tacit and explicit knowledge that are captured and well documented and stored and managed effectively within the organization.

Knowledge is a powerful tool for business. The organization needs to use this knowledge through effective knowledge sharing activities. Each and every organization have to create a

knowledge management team, which team will be responsible to draw up the whole business plan and the task of executing and implementing the plan is usually given to the Knowledge Management director.

The Knowledge Management director of any organization must have a very good resource based computerized information and data system which can be utilized in the competitive environment to gain business opportunities. They must also have sound implementation plans where they can evaluate in detail and apply control measures to ensure target market and revenues are on track. They should strategically manage this information and knowledge for its performance, in the industry they are in. KS is an important tool for knowledge management and a good KS should help to reduce the barriers in the organization.

The knowledge management activities in Malaysia Chemicals (M) Pvt Ltd in Kuantan have in place both tacit and explicit knowledge data which are very important for knowledge based economies.

2. Background of the Company

Malaysia Chemicals (M) Pvt. Ltd. was incorporated in Malaysia in 2005 as a Private Limited Company. Its core activities are in the manufacture and marketing of petrol chemicals products. The main being Purified Terephthalic Acid or PTA in short. This company is located in the Gebeng industrial area in the state Pahang on the east coast of peninsula Malaysia, about 25 kilometers from Kuantan town. It currently has 230 employees with a range of technical and non-technical background.

The company mainly has four (4) departments and each department has one head officer.

- (i) Managing department: This is the main department which creates all the plans, ideas and related activities.
- (ii) Operation department: This department's work is implementing the plans already drawn up.
- (iii) Commercial department: This department manages and controls the financing, purchasing and marketing operations.
- (iv) Human resource department: this department interacts with the employees, customers and human relationship.

Type and Range of Product

Malaysia Chemicals (M) Pvt. Ltd. manufactures and markets petroleum chemicals products and its main produce is Purified Terephthalic Acid or (PTA) in short. PTA is made from raw materials called para-xylene (PX). PTA is the preferred raw material for manufacturing polyester which is used in the polyester production of polyester fiber, bottle resin and polyester film. The industry using PTA products are mainly the textile industry and food and beverage container industry.

The company's annual production capacity is about 150,000 metric ton of PTA of which the average annual sales in the Malaysian market are about 60,000 metric ton. The current price of PTA in the open market is quite good at approximately ringgit Malaysia: RM1, 800.00 per metric ton. Malaysia Chemicals has the ability to venture into the foreign market to boost its sale future in line with the company's business aspiration and its plant's production capacity. PTA is also used in apparel, home textiles carpets and photographic films and labels.

Business Goals And Objectives



Figure 1. Business Goals and Objectives

Objectives

The main objective of the management systems is to improve safety and environmental risk management and to drive the continuous improvement of our operations.

- Options and set target to improve waste handling.
- Identify and maintain health of mangroves.

- Require protection from development.
- Reduce impact to the air and Reduce impact to the water
- Conserve natural resources

3. Literature Review of Theories And Models Of Knowledge Sharing

Knowledge

“Knowledge is the perception of the agreement or disagreement of two ideas”. (John Locke, 1689). Knowledge is information transformed into capability for effective action. It is information interpreted through a process of using judgment and values (Slack, Chambers, & Johnston, 2004). Knowledge can be a challenging term to truly define given the nature of the human mind and it can take on multiple forms which can either be tangible or intangible in nature. In one sense, knowledge may be defined as the result of the mind’s processing which is triggered by some sort of external stimulation (Alavi & Leidner, 2001).

Types of knowledge:

There are two types of knowledge 1.Tacit 2.Explicit

Tacit knowledge:

Tacit knowledge means individual’s own ideas and plans. This knowledge is not documented. (Nonaka & Takeuchis,1995) says “tacit knowledge as a non-linguistic, non-numerical form of knowledge that is highly personal and specific and deeply rooted in individual experiences, ideas, values and emotions.

Explicit knowledge:

Explicit knowledge is knowledge that can be seen, shared and easily communicated to others. Most explicit knowledge is in the form of raw data, such as documents that contain the work experiences of staff, descriptions of events, interpretations of data, beliefs, guesses, hunches, ideas, opinions, judgment and proposed actions (Choo, 2000)

Knowledge is a power it should come as no surprise that the most valuable asset for any business is the knowledge of its employees and within one’s own current knowledge based economy competent and confident employee are the foundation for successful business (Marry Clarke, 2009).

3.1 Knowledge Management (KM)

(Barth, 2000) "KM is the practice of harnessing and exploiting intellectual capital to gain competitive advantage and customer commitment through efficiency, innovation and faster

and more effective decision-making." KM is the systematic process of finding, selecting, organizing, distilling and presenting information in a way that improved an employee's comprehension in a specific area of interest (Slack, Chambers, & Johnston, 2004).

(Takanashi,2001) commented that KM is the systematic approach which invents, understands, shares, creates and utilizes knowledge in order to create values such as customer's value, employee's value, stock holders value, business partner's value and social value to achieve the vision and goals of the organization.

3.2. Knowledge Sharing (KS)

According to (Senge,1992; Zack,2003) KS means "Sharing knowledge is not about giving people something, or getting something from them. That is only valid for information sharing. Sharing knowledge occurs when people are genuinely interested in helping one another develop new capacities for action; it is about creating learning process."

KS is a systematic process for creating, acquiring, synthesizing, learning, sharing and using knowledge and experience to achieve organizational goal. KS is the deliberate act in which knowledge is made reusable through its transform from one another (Steward, 1998). KS is power and no one is willing to give it away, there is a need to create a KS environment which takes into account the social and economic factors that influence KS (Hibbard, 1997). Sharing knowledge occurs people are interested in helping one another develop new capacity for action; it is about creating learning process (Gupta & Govindarajan, 2000). KS refers to the provision of task information and know- how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures (Cummings, 2004 & Pulakos, et al.,2003).

KS has also become an important focus in the strategic management field, where knowledge is seen as "the most strategically-important resource which organizations possess," (Grant, 1996). In an empirical study of technology transfer (Hakanson & Nobel, 1998) found that even poorly articulated knowledge could be transferred through personal contact, instruction, and apprenticeship. Successful knowledge sharing often requires the establishment of a sense of identity and belonging between the parties (Bresman, et al., 1999).

Importance of knowledge sharing (Sethumadhvan,2007):

- Foster innovation by encouraging the free flow of ideas
- Help in understanding markets and customers
- Development of product and services
- Development of vision and strategies

3.3 Knowledge Sharing Model:

The SECI model by Nonaka and Takeuchi (1995) is one of the fundamental models in the field of studies about knowledge. Its idea is that organizations create knowledge through the interactions between explicit knowledge and tacit knowledge. Through this interaction process organizational knowledge expands in both quality and quantity. There are four modes of knowledge conversion. They are: (1) Socialization (from tacit knowledge to tacit knowledge); (2) Externalization (from tacit knowledge to explicit knowledge); (3) Combination (from explicit knowledge to explicit knowledge); and (4) Internalization (from explicit knowledge to tacit knowledge).

SECI (Socialization, Externalization, Combination, Internalization) model:

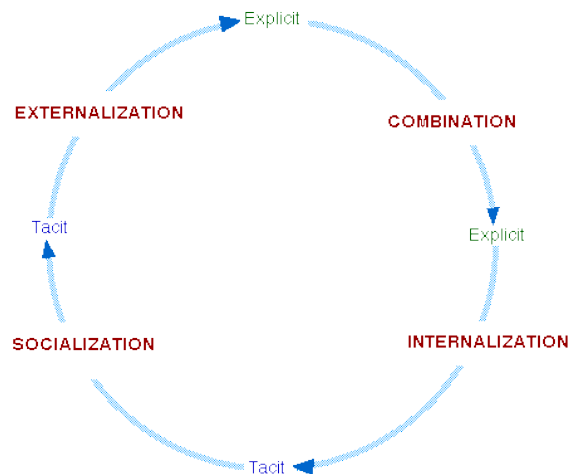


Figure 2: SECI model of knowledge creation (Nonaka & Takeuchi, 1995)

Socialization:

Socialization is the process of creating new tacit knowledge through shared experiences. As far as tacit knowledge is usually difficult to articulate and context-specific, tacit knowledge can be proposed and acquired only through shared experience, such as spending time together, conversations, doing things together.

Externalization:

Externalization is the process of articulating tacit knowledge into explicit knowledge. Knowledge is crystallized, articulated and becomes ready to be codified (written down) thus it can be more easily shared by others, and it becomes the basis for further combination of new knowledge. The successful conversion of tacit knowledge into explicit knowledge depends on the sequential use of metaphors, analogies and models.

Combination:

Combination is the process of creation of more complex and systematic sets of explicit knowledge. Explicit knowledge is collected from inside or outside of the organization and then combined, edited or processed to form new knowledge. The use of IT can facilitate this mode of knowledge conversion and later dissemination of new knowledge.

Internalization:

Internalization is the process of consumption of explicit knowledge and converting it into personal tacit knowledge. Through internalization, newly created and disseminated explicit knowledge is converted into tacit knowledge by individuals. Internalization is closely related to learning by doing. (Nonaka & Takeuchi, 1995)

4. Empirical Evidence of Knowledge Sharing Barriers

There are several barriers to knowledge sharing that are highlighted in the literature. Mainly the barriers divide in three parts: 1.individual 2.organizational 3.technological (Rieage, 2005) KS barriers tends to fall into several basic areas : (a) cultural background (e.g. age, ethnicity, educational level) affects knowledge sharing (Ardichvili, Maurer, Li, Wentling & Stuedemann, 2006; Ojha, 2005; Riege, 2005); (b) organizational culture affects knowledge sharing (Lin & lee; Connelly & kelloway,2003;Bock & kim,2002); and (c)IT support affects willingness to share knowledge(Flanagin,2002; Lin & Lee, 2006; Connelly & Kelloway, 2003).

(Lam & Chua, 2005) studied the mismanagement of knowledge management and found the key factors to be technological ignorance, technical over-complexity, lack of technical infrastructure scalability of KS. Age was one variable affecting knowledge sharing (Ojha, 2005). In a team, persons of similar ages were likely to band and interact more freely within the subgroup. Fear of losing face. It has been found that the issue of face has multiple effects on knowledge sharing behavior (Huang et al., 2008). Loss of knowledge power has been regarded as a critical barrier to KS (gray, 2001). Hall (2006) mentioned that one of the barriers to knowledge sharing in an organization is the relationship between people. Vinson (2005) on the other hand, listed more barriers on knowledge sharing. According to him, most people want people they dislike to fail and this has a bearing on their information-sharing type.

Lack of Time

The main barriers to KS in any organization are time constraints on sharing, the competitive working environment, individuals not sharing best practice so as to be competitive, and a lack of understanding of the benefits of KS. As an example the cost of land in Hong Kong is

relatively high, commencing and completing construction projects within a short time period can result in faster and higher returns. Tendering periods are therefore short and practitioners are often required to complete works under very tight schedules. In addition, Hong Kong's recession economy has led to the downsizing of companies, so that practitioners are often forced to handle two to three times their previous workload. As a result, lack of time has become the main barrier to respondents' sharing of knowledge and experience with their colleagues. (Herrgard,2000) states that "the rapid change rate in today" working life calls for continual lifelong learning and many employees are expected to take care of the learning needed. Knowledge sharing practice is best solution.

Language Barriers

Another major barrier in KS is language barrier. At Woonsocket Spinning company they have taken steps to rectify the language barriers.(Carol Morris,2002)

Woonsocket is one of the few remaining woolen mills in the United States. It employs approximately 100 Workers, 15 of whom are foreign-born. The majority of its foreign-born workers are Asians. Overcoming language barriers is the greatest challenge for both workers and the employer. To help with this, the company hires interpreters or has other employees who speak the language help the non-English speaking employees, particularly during orientation and training. The company has found its efforts to help bridge language barriers worth the investment; reporting that its foreign-born workers are dependable and good, loyal employees. They also bring production skills that the company is unable to find elsewhere. As a point of advice for other companies considering hiring immigrant workers, Woonsocket underscores the need for patience in working with employees, but suggests there will be a payoff.

5. Knowledge Sharing Climate in Malaysia Chemicals

Here in Malaysia Chemicals (M) Pvt. Ltd due to the nature of its products i.e. the chemical product-PTA the management has put in place knowledge sharing activities across all the departments so that all department workers have the knowledge and are well versed with the procedures. KS are used with good intention for the inter-relationship between the employees and the organization. Mainly KS is used for technology, economic and social perspectives of the company. Malaysia Chemicals' both tacit and explicit knowledge are used wisely. The company's knowledge sharing activities has helped it gain as knowledge based economy which is vital for the economic and commercial growth.

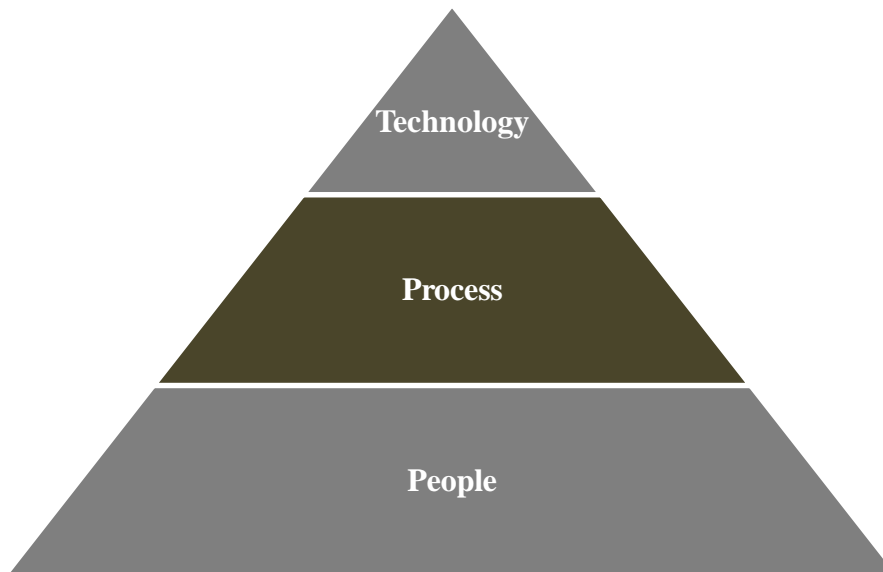


Figure 3. Knowledge sharing climate (Arnten,A & Aurelie,2006)

People: KM is first and foremost an effort to manage, develop, and disseminate knowledge and the full potential of people as an individual, team-based, and organization-wide level. Providing the right cultural environment is the most challenging effort but achievable by enhancing learning facilities, providing a trustful working atmosphere, where collaboration and sharing are encouraged. Malaysia Chemicals is geared to motivating and rewarding people that create, share and use knowledge, encouraging communities of practice and promoting network creations.

Processes: Processes play an important role in providing support for any KM implementation. Organizations might need to restructure their internal processes or even the organization structure itself in order to support KM processes such as knowledge sharing or transfer. Managers must identify knowledge that exists in various forms in the organization. One way to achieve the goal would be, for example, creating a knowledge map by initially finding out where knowledge resides, point it out and then provide instructions on how to get there.

Technology: Providing a knowledge portal, linking people by e-mail or building knowledge repositories contributes efficiently to sharing knowledge. However, using technology alone will not ensure successful knowledge management as organizational factors such as adequate training needs to be taken into account as well.

Tacit knowledge used in the production of PTA

In Malaysia Chemicals (M) Pvt. Ltd. the extent of tacit knowledge is basically used in the operation department. Here employees who are well experienced and knowledgeable are made to handle the machineries in the production line so as determine the level of composition of chemicals. All these information are very important for the smooth flow of productions.

Tacit knowledge used for selling the product

At the Marketing department, the company’s personnel selling the company’s product to local companies, foreign companies and the general public are also knowledgeable in the current market trend and plan their sales target and strategies accordingly so as know and determine the customers and best selling markets and those of lower selling market.

5.1. Knowledge Audit

Knowledge audit should be the first step in KM as it would provide accurate identification, quantification, measurement and assessment of the sum total of tacit and explicit knowledge in the organization (Hylton, 2002). Knowledge audit use with Malaysia Chemicals is to determine which department uses tacit knowledge and which department uses mainly explicit knowledge information which is stored with data mining and data warehouse.

Table 1. Observation Summary

Knowledge	Type of Knowledge	Person/Process/Product	Years in Organization
Employee Health Safety Management(ESHM)	Explicit	Safety Officer	3 Years
Best Practices and Work Instruction	Tacit	Chemical Engineer/Mixing/PTA	5 Years
Performance Management	Explicit	All Department Head	5 Years
Strategy Planning and Budgeting	Explicit	Senior Management	3 Years
Quality Management System	Explicit	Quality Team/Quality Inspection/PTA	5 Years

5.2. Knowledge Sharing Barriers in Malaysia Chemicals

(i) Culture in Malaysia Chemicals:

Most of the employees of Malaysia Chemicals across all the department are highly knowledgeable in their particular field of work but this knowledge usually 'tacit' in nature and some 'explicit' knowledge have not been fully documented and archived for use by the others who need them now and in the future. Most also are not willing to share their gained knowledge and lack the ability to share their tacit knowledge with others for fear of losing their competitive advantage.

Product to market barrier:

The non availability of correct information and lack of adoption of data standards including guide data, access control about the global market environment and the instability in the purchase of PTA in the open market has led to the reduction in the sale of PTA. This has brought a situation whereby competitors were able to penetrate some of the customers. Though customer can choose the way they want to do business and with whom, Malaysia Chemicals is losing out slowly to the market forces that are continuously undermining the sale price of PTA in the global market.

(ii) Malaysia Chemicals customer intimacy

Malaysia Chemical's customers come from a wide range of industrial manufacturers both locally and internationally. The business transaction with these customers drives the most revenue (income) to the organization. However, at times in a stretch the purchase of products (PTA) is reduced drastically due to the customer financial constraints. Though Malaysia Chemicals has stored all the information of the customer activities in the central computer system especially the financial strength and the purchase schedule and build a close relationship to gain customer knowledge and loyalty with most of these customers. However these customers do not always give the required information to the organization fast enough for Malaysia Chemicals to determine its production volume and purchase of raw material for the required period. This has led to over purchase of raw material from its supplier thus creating stock over pile.

(iii) Time barrier

Malaysia Chemicals operations is mostly affected by time barrier because face to face knowledge sharing and the transfer of knowledge is effected since the manager and the senior chemical technologist only have limited time for a lengthy discussion or teaching lessons.

Time is grouped into personal barrier level in which too much of time and efforts are required in order for KS.

(iv) Operational Excellence:

Malaysia Chemicals has a big market share in the sale of its product. However, with new technological advancement newer and better equipped and efficient plants are being opened which has future led to a brain drain in the migration of its talented workforce. The organization's focus on cost reduction and increasing performance is taking a heavy toll on its financial and human resource as it cannot compete with the new plants cheaper output. The lost in workforce has also contribute to the high cost of production as junior workers are less knowledgeable and are not to cope with the change happening around them and ill equipped with knowledge. This has brought about lost of sales and the market share to cheaper from the new competitors.

6. Knowledge Sharing Framework

Once identified the weaknesses in the knowledge sharing system the KM team should develop a proper manual for systematic input of data and information thus enabling all employee and the management to gain access to the knowledge so that Malaysia Chemicals (M) Pvt. Ltd. can stay competitive in the global market.

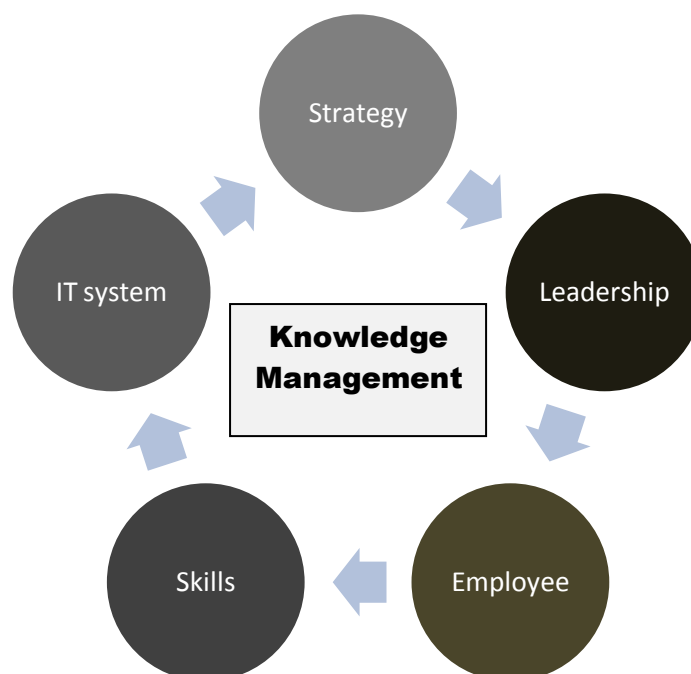


Figure 4. Framework of KM(Andrew kok,2002)

Strategy:

In Malaysia Chemical, strategy is therefore needed to support the coordination of local,

regional and global knowledge resources and provide a mechanism for effective sharing of rural development best practices and promoting to the company growth. Strategy will help to overcome the social and literacy and overcome the product to market barriers.

Leadership:

Chief knowledge officer is to develop some format and activities and the employee should be made to follow that format. This will enable the employee to easily understand the ideas and the company can quickly develop itself and the leadership can help to rectify the customer intimacy barriers.

- Develop the big picture of the company
- Actively promote the knowledge base
- Develop KM infrastructure
- Provide Facilities for the KS

Employee:

Employee is very important for KM effort to manage, develop, and disseminate knowledge and the full potential of people as an individual, team-based, and organization-wide level. Motivation of employee and trustful working atmosphere allows a conducive environment to share and use of new knowledge creation.

Skills:

Working employee should know about knowledge creation and KS. Employee who have tacit and explicit knowledge in Malaysia Chemicals and knowledgeable should be made to handle the key areas to overcome operational barrier and produce excellence in the organizational business activities.

Important of skills:

- initiative
- networking
- self management
- effective team work
- strong leadership

IT system:

Information Technology (IT) system is most useful in Malaysia Chemicals because of the

company's customers who are worldwide and it allows the easily transfer of information and data to be transmitted or communicated from one person to another or from one place to another. IT is also used in the form of telephone, facsimile, video, television, radio, print material (e.g., newspapers and books), and computer-based or computer-mediated modes (e.g., email, chat and news groups, blogs, electronic conferencing, CD-ROMs, etc).

7. Knowledge Sharing Practices

The impact of IT on the organization and IT changing the business world has far reaching and changing consequences to all employees and is to be taken as a tool for knowledge sharing practices to be implemented in the organization. The organization should conduct regular seminars and training within the organization and outside with their trained and knowledgeable staff who are entrusted to share their experiences and impart those tacit knowledge within them in the form of discussions and brain storming sessions and on site work training so as to elevate problem solving solutions directly with the effected employee. The department heads should also identify the prospective employees for such training and slowly groom them to take over specific management jobs thus enriching both their tacit and explicit knowledge in the particular area of expertise.

8. Conclusion and Recommendation

A proper knowledge management system in place in the organization will help to overcome the shortcomings in the current system and to alleviate future problems in managing its knowledge assets. Information and knowledge is key to any decision making process and without information and knowledge the organization is like operating in the situation of darkness. Too often when the key employee leaves the organization, the information and knowledge is lost. Thus it is vital for Malaysia Chemicals (M) Pvt. Ltd. to ensure that the tacit and explicit knowledge is captured and managed effectively by way of a systematic knowledge sharing activities to be undertaken by a KM team.

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