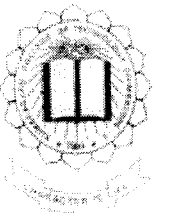

A STUDY ON MARKET POTENTIAL OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS IN PRIVATE SCHOOLS AT CHENNAI

A SUMMER PROJECT REPORT (MBA703)

Submitted by

S.SRIDHAR
Register No: 0920400054

Under the Guidance of

MR. K. R. SATHISH KUMAR

in partial fulfillment for the award of the degree

of

MASTER OF BUSINESS ADMINISTRATION

in

Department of Management Studies

KUMARAGURU COLLEGE OF TECHNOLOGY
(An Autonomous Institution Affiliated to Anna University of Technology, Coimbatore)

COIMBATORE – 641 049

October, 2010

KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE -641 049

Department of Management Studies

A SUMMER PROJECT WORK (MBA703)
OCTOBER 2010

This is to certify that the project entitled

A STUDY ON MARKET POTENTIAL OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS IN PRIVATE SCHOOLS AT CHENNAI

is the bonafide record of project work done by

S.SRIDHAR

Register No: 0920400054

of Master of Business Administration during the year 2010 – 2011

Project Guide

Head of the Department

Submitted for the Summer Project Viva-Voce examination held on

02-11-2010

Internal Examiner

External Examiner

IPOT TECHNOLOGIES

15 October 2010

CERTIFICATE

This is to certify that Mr. Sridhar S, Roll No. 09MBA54 , second year MBA, a student of KCT Business School, Kumaraguru College of Technology, Coimbatore had undergone a project entitled "**A STUDY ON MARKET POTENTIAL OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS IN PRIVATE SCHOOLS AT CHENNAI"** for IPOT Technologies between 20 July 2010 to 22 August 2010.

During the tenure, his performance was Very Good.

With regards

Mr. S. Yoosuf
Technical-Head

DECLARATION

I affirm that the project work titled **"A STUDY ON MARKET POTENTIAL OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS IN PRIVATE SCHOOLS AT CHENNAI"** being submitted in partial fulfillment for the award of Master of Business Administration is the original work carried out by me. It has not formed the part of any other project work submitted for award of any degree or diploma, either in this or any other University.

S.SRIDHAR
0920400054

I certify that the declaration made above by the candidate is true

MR. K. R. SATHISH KUMAR
Lecturer
KCT Business School

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I express my sincere gratitude to our beloved chairman **Arutchelvar Dr. N.Mahalingam and Management** for the prime guiding spirit of Kumaraguru College of Technology.

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ABSTRACT

This project report entitled **"A Study on Market Potential of Enterprise Resource Planning (ERP) Systems in Private Schools at Chennai"** was commissioned to evaluate the feasibility of ERP systems aimed to evaluate the market prospects for Chennai schools. The study highlights the expectation of organization in this competitive world, then whether the schools are efficiently using the current software. To check the market potential of Chennai schools for the newly developed product.

Due to the Globalization, the industries grow day by day. The problem of outsourcing SMS Solutions, problem of erecting the servers for LAN based ERP systems which has many disadvantages like scope is low, large number of servers required while developing, could access only from a given place(within the region/locality), presence of personnel for service and maintenance, etc.

Primarily the well defined objectives are framed according to the study. Then questionnaire is prepared based on the defined objectives. The prepared questionnaire is used to get by way of personal interview from the customers.

From the analysis some general findings are raised and that are more related with the framed objectives for this study. According to the findings the suggestion are given and the conclusions are also based on the findings which will be more helpful for the organizations.

CHAPTER 1

INTRODUCTION

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INTRODUCTION

Enterprise Resource Planning (ERP) is an integrated computer-based system used to manage internal and external resources, including tangible assets, financial resources, materials, and human resources. Its purpose is to facilitate the flow of information between all business functions inside the boundaries of the organization and manage the connections to outside stakeholders. Built on a centralized database and normally utilizing a common computing platform, ERP systems consolidate all business operations into a uniform and enterprise-wide system environment.

An ERP system can either reside on a centralized server or be distributed across modular hardware and software units that provide "services" and communicate on a local area network. The distributed design allows a business to assemble modules from different vendors without the need for the placement of multiple copies of complex and expensive computer systems in areas which will not use their full capacity.

1. 1 Ideal ERP System

An ERP system would qualify as the best model for enterprise wide solution architecture, if it chains all the below organizational processes together with a central database repository and a fused computing platform.

1.1.1 Manufacturing

Engineering, resource & capacity planning, material planning, workflow management, shop floor management, quality control, bills of material, manufacturing process, etc.

1.1.2 Financials

Accounts payable, accounts receivable, fixed assets, general ledger, cash management, and billing (contract/service)

1.1.3 Human Resource

Recruitment, benefits, compensations, training, payroll, time and attendance, labor rules, people management

1.1.4 Supply Chain Management

Inventory management, supply chain planning, supplier scheduling, and claim processing, sales order administration, procurement planning, transportation and distribution

1.1.5 Projects

Costing, billing, activity management, time and expense

1.1.6 Customer Relationship Management

Sales and marketing, service, commissions, customer contact and after sales support

1.1.7 Data Warehouse

Generally, this is an information storehouse that can be accessed by organizations, customers, suppliers and employees for their learning and orientation

1.2 ERP Systems Improve Productivity, Speed and Performance

Prior to evolution of the ERP model, each department in an enterprise had their own isolated software application which did not interface with any other system. Such isolated framework could not synchronize the inter-department processes and hence hampered the productivity, speed and performance of the overall organization. These led to issues such as incompatible exchange standards, lack of synchronization, incomplete understanding of the enterprise functioning, unproductive decisions and many more.

1.3 Implementation of an ERP System

Implementing an ERP system in an organization is an extremely complex process. It takes lot of systematic planning, expert consultation and well structured approach. Due to its extensive scope it may even take years to implement in a large organization. Implementing an ERP system will eventually necessitate significant changes on staff and work processes. While it may seem practical for an in-house IT administration to head the project, it is commonly advised that special ERP implementation experts be consulted, since they are specially trained in deploying these kinds of systems.

Organizations generally use ERP vendors or consulting companies to implement their customized ERP system. There are three types of professional services that are provided when implementing an ERP system, they are Consulting, Customization and Support.

- Consulting Services - are responsible for the initial stages of ERP implementation where they help an organization go live with their new system, with product training, workflow, improve ERP's use in the specific organization, etc.
- Customization Services - work by extending the use of the new ERP system or changing its use by creating customized interfaces and/or underlying application code. While ERP systems are made for many core routines, there are still some needs that need to be built or customized for a particular organization.
- Support Services - include both support and maintenance of ERP systems. For instance, trouble shooting and assistance with ERP issues.

The ERP implementation process goes through five major stages which are Structured Planning, Process Assessment, Data Compilation & Cleanup, Education & Testing and Usage & Evaluation.

1. Structured Planning: is the foremost and the most crucial stage where an

information flow within and outside the organization is scrutinized, vital objectives are set and a comprehensive implementation plan is formulated.

2. Process Assessment: is the next important stage where the prospective software capabilities are examined, manual business processes are recognized and standard working procedures are constructed.
3. Data Compilation & Cleanup: helps in identifying data which is to be converted and the new information that would be needed. The compiled data is then analyzed for accuracy and completeness, throwing away the worthless/unwanted information.
4. Education & Testing: aids in proofing the system and educating the users with ERP mechanisms. The complete database is tested and verified by the project team using multiple testing methods and processes. A broad in-house training is held where all the concerned users are oriented with the functioning of the new ERP system.
5. Usage & Evaluation: Are the final and an ongoing stage for the ERP. The lately implemented ERP is deployed live within the organization and is regularly checked by the project team for any flaw or error detection.

1.4 Advantages of ERP Systems

There are many advantages of implementing an EPR system. A few of them are listed below:

- A perfectly integrated system chaining all the functional areas together
- The capability to streamline different organizational processes and workflows
- The ability to effortlessly communicate information across various departments\
- Improved efficiency, performance and productivity levels
- Enhanced tracking and forecasting
- Improved customer service and satisfaction

1.5 Disadvantages of ERP Systems

While advantages usually outweigh disadvantages for most organizations implementing an ERP system, here are some of the most common obstacles experienced:

- The scope of customization is limited in several circumstances
- The present business processes have to be rethought to make them synchronize with the ERP
- ERP systems can be extremely expensive to implement
- There could be lack of continuous technical support
- ERP systems may be too rigid for specific organizations that are either new or want to move in a new direction in the near future

Diagram 1.1 Enterprise Resource Planning

1.6 WEB Based ERP:

Web-based ERP solution, simplifies back-office process automation for mid-sized and growing business. It provides real-time information about finance, order management, purchase, inventory, employee management, e-commerce and much more. With web-

and reliability, and provide higher levels of service to customers, suppliers and partners.

Web-based ERP solution improves business among customers, suppliers and partners through self-service portals, providing for lead management, shipment tracking, bill payment and more. Highlights of web-based resource ERP solution

1.6.1 Reduce IT costs and maintenance

As a web-based hosted solution, resource InfoTech's web-based ERP solution or resource ERP significantly reduces your overhead expenses. There is no software to install, no hardware to purchase and maintain, and no up-gradation requiring complex re-implementation over time. Our team of IT professionals manages your maintenance, support, and up-gradation at our world-class data center. As a result, you can focus on running your business, while our web-based ERP solution takes care of your business plans with the backend software.

Use our real-time master controls (dashboards) for better decision making. Master control gives you a real-time snapshot of your business, enabling you to make better, faster decisions. You can view leads, commissions, sales revenue and forecasts, new cases and more.

Read the overview of our various web-based ERP products, select any component from the list below. We encourage you to speak with us to find the product that best fits your needs.

1.6.2 Advantage of web-based ERP solution:

- A clear advantage of the web-based ERP solution is that remote users like executives and sales reps can access the company system with any browser, which is much more convenient than going through a laptop configured for Terminal Services. A quick and on-time implementation of the solution can be done on your existing configuration set up. That means you do not need to

upgrade your network for Windows/Exchange Server and SQL Server database.

- As you would have come across more suggestions on ERP, selecting the right one is crucial. The term "Hosted Solution" is rapidly catching up, on account of its own benefits. A web-hosted solution ensures a lower outlay and predictive spread of cost over time. You have a substantial saving in cost (on both the software and hardware, licensing) that can be better invested in your business process.
- Web-based ERP removes your headache from the Investment made towards Time and Cost in the maintenance of the server & other hardware.
- Web-based ERP also removes your worry about the new functions and features (service packs and fixes).
- When you go in for a web-based ERP, you can start using it from day one (avoids the worry towards implementation time, which has been cited as one major reason for ERP failure).
- Optimized performance & Support
- Most of the hosted applications are like off-the-shelf software. The web-based ERP application is available to you anywhere and at anytime from a simple browser.
- Access through hand-held devices made easy.

1.6.3 Low cost web-based ERP solution

Unlike the other ERP solutions web-based ERP solution like resource ERP can be purchased in individual modules and a section-wise implementation can be carried out. So it becomes easy for the companies to purchase and implement them without having to worry about the huge initial investment.

Being a web-based ERP solution, it is easy to carry out the maintenance, which is most of the time performed online by the vendor. It saves a lot of time and there will be no place for complaint as online help will be provided by resource ERP help desk

guaranteed to all customers. The yearly maintenance also won't cost the customers much.

Web-based ERP is both offline and accessible online. Hence in a globalized market, the CEO of an organization is given the convenience of making even his hotel room, or the living home desk his convenient office table just by hooking up his laptop to the net.

In making the choices of an ideal platform on which to run the business, organizations of all sizes are being attracted by the many advantages and economies that web-based resource ERP has to offer. Besides being more cost effective, easier to install and maintain, resource's web-based ERP solution offers easier access across geographical boundaries without needing additional investment for connectivity.

1.7 REVIEW OF LITERATURE

1. Young B. Moon, Department of Mechanical and Aerospace Engineering, Institute for Manufacturing Enterprises, Syracuse University, Syracuse, NY 13244, USA **"Enterprise Resource Planning (ERP): a review of the literature".**
This article is a review of work published in various journals on the topics of Enterprise Resource Planning (ERP) between January 2000 and May 2006. A total of 313 articles from 79 journals are reviewed. The article intends to serve three goals. First, it will be useful to researchers who are interested in understanding what kinds of questions have been addressed in the area of ERP. Second, the article will be a useful resource for searching for research topics. Third, it will serve as a comprehensive bibliography of the articles published during the period. The literature is analyzed under six major themes and nine sub-themes.

2. Avimanyu Datta, Washington State University, College of Business, August 23, 2005 **"Cisco Systems: Implementing 'Customized' ERP in Nine Months and Within Budget".**

ystems project have consistently cited "intangibility" of software leads to stakeholder conflicts and lack of top management support resulting in the failure of over 75% of Information Systems Projects. Cost overruns and delayed delivery not only led to calling back of some projects but also yielded some catastrophic results. ERP packages, despite their known upsides, have their own shortcomings in terms of feasibility and scalability of the system to match the requirement of the customers. Cisco's skepticism toward an ERP system was well grounded. But instability and regular outages of their existing system with its inability to support growing needs of the company left them with no choice.

These case details how Cisco consolidated a team comprising of its own members, KPMG and Oracle mixed the robustness of sequential life cycle model with the flexibility of the iterative prototyping model to come up with a working system within just 9 months. This case also embarks on the top management support that Cisco received from the beginning of the project. In most cases, Information Systems development projects do not receive a conducive culture from the top management. Further the teams from Cisco, KPMG and Oracle blended into one cohesive unit with a common objective. Finally, the case ends with throwing a debatable question whether the success of Cisco can be repeated, asking whether Cisco was advantaged by technical resources and key timings. Lessons learned contains summaries of the major success drivers and flaws in place, which contributed to the successful rollout of Cisco's 15 million dollar ERP project in only nine months.

3. Albert Boonstra, University of Groningen - Faculty of Economics and Business, New Technology, Work and Employment, Vol. 24, Issue 2, pp. 177-193, July 2009 **"Understanding ERP System Implementation in a Hospital by Analyzing Stakeholders".**

Implementing enterprise resource planning (ERP) systems requires significant organizational, as well as technical, changes. These will affect stakeholders with varying perspectives and interests in the system. This is particularly the case in health care, as a feature of this sector is that responsibility of services is shared between

Such an understanding will help implementers to address stakeholder interests and to encourage acceptance. Therefore, the purpose of this paper is to develop a theoretically based model to analyze how stakeholder attitudes and behaviours in a hospital setting affect the outcome of ERP implementation. This model is applied in an empirical study of a project to introduce an ERP system in medium-sized hospital in The Netherlands. The study shows how the ERP implementation impacts the interests of stakeholders such as physicians and administrators, which caused tensions. The paper examines the reasons of these tensions. In doing so, it contributes to our understanding of ERP implementation in health care and any other similar sectors from a stakeholder perspective, and it may help implementers to manage this more effectively.

4. Sanjib Bhuyan, The State University of New Jersey - Agricultural, Food & Resource Economics, **"Availability and Market Potential on Non-Agricultural Businesses in North Dakota".**

Many North Dakota communities find it financially difficult to provide or maintain such necessary services as public safety, water and sewer services, garbage disposal, grocery and retail stores, local credit, medical care and similar other services due to gradual decline in both population and businesses. Declining population also stresses the existing businesses as they compete for a shrinking customer base while the cost of operating a business is likely to be increasing. Cooperatively owned businesses are means by which needed products and services can be provided at a reasonable cost and at the same time provide meaningful employment opportunities. Thus, the cooperative approach may provide an option for rural communities in North Dakota for influencing economic development efforts in their localities. In an attempt to identify specific businesses for cooperative development efforts in North Dakota, this study explores the availability and market potential of various non-agricultural businesses in retail, service, wholesale, and finance, insurance, and real estate sectors in the state. In addition, the potential of cooperation among communities, public entities, and private businesses was examined. The results of this study show that

ervice sector and computer and software stores in the retail sector. Regarding the cooperative form of businesses in those business categories identified as having market potential, entrepreneurs who are individually unable to finance their business may solve their problem by forming a cooperative. In addition, there is scope for cooperation among existing businesses which want to reduce their operating cost and public entities and non-profit organizations that would like to provide their services at a reduced cost. There is ample evidence of on-going cooperation among various North Dakota communities and public entities to solve the problem of the high cost of providing public or government services.

5. Gary Spraakman, York University, December 2005 **"The Impact of Enterprise Resource Planning Systems on Management Accounting: Some Canadian Evidence and Suggestions for Future Research".**

Enterprise resource planning systems have great potential for changing how companies are administered. In accepting that premise, this paper has two purposes: (1) to demonstrate the capacity of ERP systems to improve capital budgeting by specifying explicitly the intended impacts on revenues, expenses, costs, asset utilization, etc, and (2) to survey Canadian companies about how their use of ERP systems have affected their capital budgeting, management accounting, and control systems. From the 71 surveyed large Canadian companies, 31 responded for a response rate of 43.7 percent. It was found from the respondents that ERP systems are allowing capital budgeting, budgeting, operating statements, forecasting, performance measurement, and costing to be more detailed, more accurate, and quickly reported.

6. Kristine Dery, Massachusetts Institute of Technology (MIT) - Sloan School of Management, New Technology, Work and Employment, Vol. 21, No. 3, pp. 199-214, November 2006 **"Design, Implementation And Use Of Enterprise Resource Planning Systems"**

This paper reviews literature that examines the design, implementation and use of Enterprise Resource Planning systems (ERPs). It finds that most of this literature is managerialist in orientation, and concerned with the impact of ERPs in terms of

lternative research agenda, one that emphasises work- and organization-based pproaches to the study of the implementation and use of ERPs.

7. James E. Hunton, Bentley University - Department of Accountancy, Erasmus University

Journal of Information Systems, Spring 2002 **"The Reaction of Financial Analysts to Enterprise Resource Planning (ERP) Implementation Plans"**

This study investigates the extent to which investors believe that enterprise resource planning (ERP) systems enhance firm value by examining changes in financial analysts' earnings predictions before and after they receive an announcement that a firm plans to implement an ERP system. A total of 63 analysts participated in a two (firm size: small and large) by two (firm health: unhealthy and healthy) randomized between-subjects design. The ERP announcement represented a within-subjects manipulation. The analysts' overall reaction to ERP implementation plans was positive, as mean post-announcement earnings forecasts were significantly higher than mean pre-announcement forecasts. Additionally, as expected, mean earnings forecast revisions in the small/healthy and large/unhealthy firm conditions were significantly greater than mean forecast revisions in the small/unhealthy firm condition.

8. James Cornford, Newcastle University - Business School, Neil Pollock, University of Edinburgh, Information Technology & People, Vol. 17, No. 1, pp. 31-52, 2004, **"ERP Systems and the University as a 'Unique' Organization"**

Enterprise Resource Planning (ERP) systems are widely used by large corporations around the world. Recently universities have turned to ERP as a means of replacing existing management and administration computer systems. In this article we provide analysis of the rollout of an ERP system in one particular institution in the UK, the particular focus being on how the development, implementation and use of both generic and university specific functionality is mediated and shaped by a fundamental and long standing tension within universities: this is the extent to which higher education institutions are organizations much like any other and the extent to which they are 'unique'. The aim of this article is not to attempt to settle this issue of

aking discussions of similarity relationships surrounding the university and other organizations as the topic of analysis. One way of working with these kinds of issues without resolving them is to consider their 'distribution' (where ERP shifts the responsibility for their resolution) and where their resolution is finally located. This is a novel and insightful way of understanding how ERP systems are refashioning the identity of universities. We suggest, moreover, that ERP software is 'accompanied' by such tensions. The research presented here is based on a participant observation study carried over the period of three years.

CHAPTER 2

COMPANY

CHAPTER 2

COMPANY PROFILE

IPOT stand for Integrating Person Organization and Technology. IPOT Technologies is a software development firm to provide solutions to Small and Medium Business Enterprises. They provide software solutions to customers with best services with innovation, dedication and commitment. Based in Chennai, IPOT Technologies has been growing steadily and gained its reputation by providing customers with high quality and reliable services. They work on cutting edge technologies and have expertise in E-Business, Manufacturing, Finance, Human Resource, Health Care, Education and System Integration and providing fruitful Management Information System (MIS) reports for quick decision making and growth analysis purpose.

IPOT Technologies was founded in 2009. Initially they did not have a physical set up and they were doing website creation and website re-vamping as their initial services. Later as it expanded steadily, two offices were set up in Chennai. As the IT giants like TCS and Infosys have evolved just from a small room or office, this company is also trying hard to develop itself.

IPOT Technologies Quality process have instituted throughout the development and maintenance of the system. The whole system is reviewed, audited at frequent intervals to ensure that the commitment to quality is maintained. Indeed, IPOT Technologies has strongly committed to installing quality in all its projects. Software professionals and consultants able to provide "SMARTWORK", while attaining an immediate solution for challenges faced in the world of information

Technology. In addition, IPOT Technologies has incorporated or developed its own methodologies for systems development.

The key person is Mr.S.Yoosuf who is experienced in developing software for corporate and he is the technical head of the company. Presently 20 employees are working in this company. And there are approximately 40 corporate who are now clients of IPOT.

The following are the services offered by IPOT:

- ERP(Enterprise Resource Planning) - LAN and Web based ERP
- SMS solution(Web based)
- Website creation, alteration and revamping
- Banner parking
- Face Recognizer and Thumb Recognizer
- Utility software
- Other customized software according to the need of customers.

2.1 Enterprise Resource Planning:

ERP is administration software which helps the top management in handling their day-day activities. For each and every organization, Business Process Reengineering (BPR) is important because BPR is a management approach aiming at improvements by means of elevating efficiency and effectiveness of the processes that exist within and across organizations. The key to BPR is for organizations to look at their business processes from a "clean slate" perspective and determine how they can best construct these processes to improve how they conduct business and business process change management. So ERP is designed and developed in the way to ensure the BPR is very much possible in the future requirements and transformations.

ERP also provides proper solutions and reports for the top management for taking proper decisions and policies for Business process redesign and Business Transformations.

ERP is developed by using the Microsoft .NET platform so it provides high end security and user friendly environment for the users and provides great control over the system for the administrators.

The following are the different modules offered in the software:

- Admission and follow-ups
- Student registration
- Fees management
- Timetable management
- Exam & result management
- Staff payroll management
- HR activities
- Transport management
- Academic planner
- Front office management
- Transfer & character certificate generator
- I-card generator
- Media management
- Event & activities management
- Library activities
- Hostel & mess management
- Back office file management
- Accounts management

2.1.1 Types of ERP:

- LAN based ERP
- Web based ERP

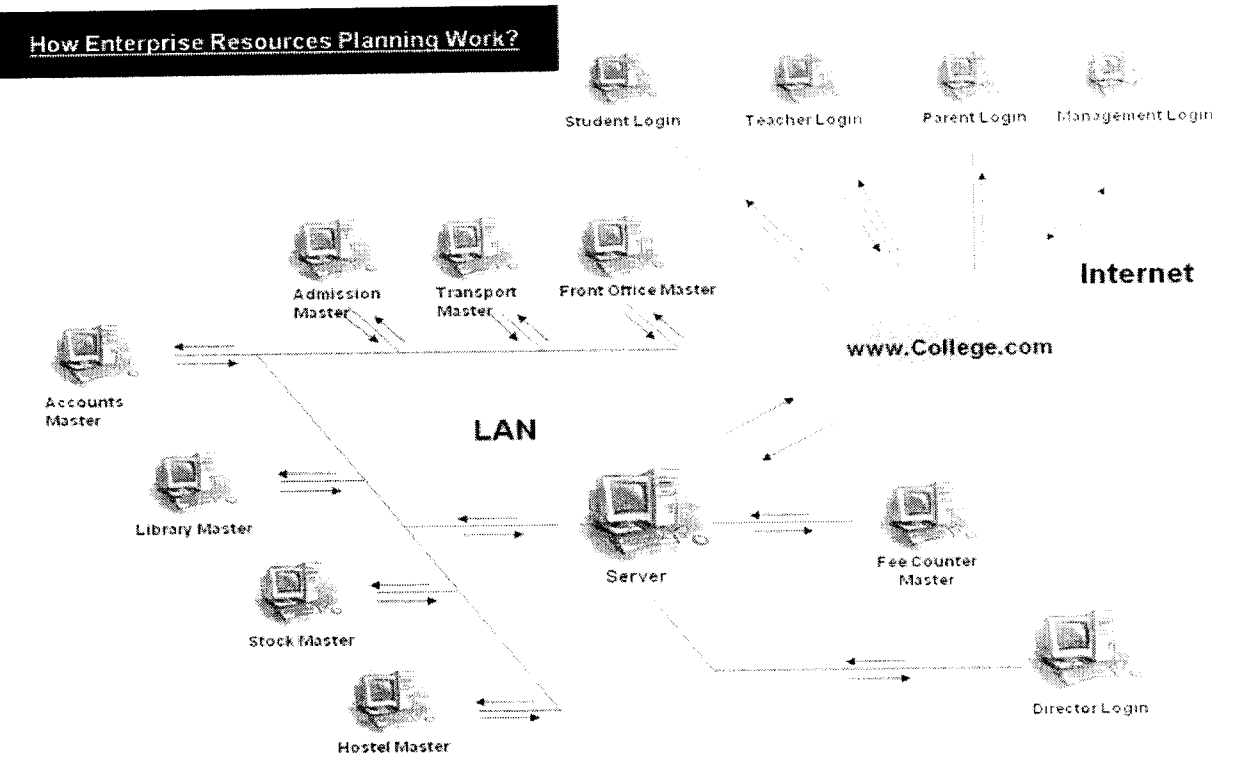


Diagram 2.1 Working of Enterprise Resource Planning

2.2 SMS Solution:

This software enables the clients to send sms of their own without depending on any of the service providers. The stands out features of this product are

- Can send customized message to each recipient automatically
- Can import the mobile numbers from any excel sheet or document
- Can send 1000's of messages in an instant
- Sender ID can be edited to the will of user
- It is possible to have a record of sent, delivered and failed messages
- It supports messages of any language

Any job involving creation, alteration, modification and re-vamping of websites can be done.

Banner parking is the service by which if the corporate or institution is searched using search engines like Google, Yahoo etc the institution comes up in

CHAPTER 3

OBJECTIVES, SCOPE, LIMITATIONS AND RESEARCH METHODOLOGY

CHAPTER 3

OBJECTIVES, SCOPE, LIMITATIONS AND RESEARCH METHODOLOGY

3.1 OBJECTIVES OF THE STUDY:

- To ascertain the market potential of the school management ERP packages among the private schools in Chennai city.
- To understand the expectation of the private schools towards the above mentioned product
- To justify the reasons to install ERP in the private schools

3.2 SCOPE OF THE STUDY:

The scope of the study is confined to market potential of the ERP packages among the private schools. Then the study is undergone a research in ERP system to analyze it and understand the importance of ERP in schools.

3.3 LIMITATIONS:

- This study covers only schools in chennai city
- This study undergone a research based on the selected schools in Chennai

3.4 RESEARCH METHODOLOGY:

3.4.1 RESEARCH DESIGN - DESCRIPTIVE RESEARCH

Descriptive study is to identify patterns or trends in a situation, but not the cause and effect linkages among its different elements. The research is descriptive in nature. The researcher has no control over the variables and they are independent.

3.4.2 METHOD OF DATA COLLECTION

PRIMARY DATA COLLECTION

A structured questionnaire was prepared and data are collected from the selected schools. This questionnaire reduces the chances of the respondents to be confused over different phrasing of questions and answers.

3.4.3 SAMPLE SIZE

From the Directorate of schools there are 853 schools are located in different areas in [illegible] from that sample of 100 private schools has been selected in each area for the

3.4.4 SAMPLING DESIGN

PURPOSIVE RANDOM SAMPLING

A form of sampling in which the selection of the sample is based on the judgement of the researcher as to which subjects best fit the criteria of the study. Out of 853 Schools in Chennai located in different areas then particularly private schools are randomly 100 schools are selected.

3.4.5 STATISTICAL TOOL - SPSS

- Percentage Analysis – Bar Chart and Pie Diagram

3.4.5 STATISTICAL TEST - SPSS

Correlation Test: Correlation is a bivariate analysis that measures the strengths of association between two variables. In statistics, the value of the correlation coefficient varies between +1 and -1. When the value of the correlation coefficient lies around ± 1, then it is said to be a perfect degree of association between the two variables. As the value goes towards 0, the relationship between the two variables will be weaker. Pearson r correlation is widely used in statistics to measure the degree of the relationship between the linear related variables. For the Pearson r correlation, both variables should be normally distributed.

$$r = \frac{N \sum xy - \sum (x)(y)}{\sqrt{N \sum x^2 - \sum (x^2)][N \sum y^2 - \sum (y^2)]}}$$

Where:
r = Pearson r correlation coefficient

N = number of value in each data set

$\sum xy$ = sum of the products of paired scores

$\sum x$ = sum of x scores

$\sum y$ = sum of y scores

$\sum x2$= sum of squared x scores

CHAPTER 4

CHAPTER 4

ANALYSIS AND INTERPRETATION

Table 4.1: The following table shows the gender of the respondents

Gender	**No. of Respondents**	**Percentage**
Male	64	64.0
Female	36	36.0
Total	100	100.0

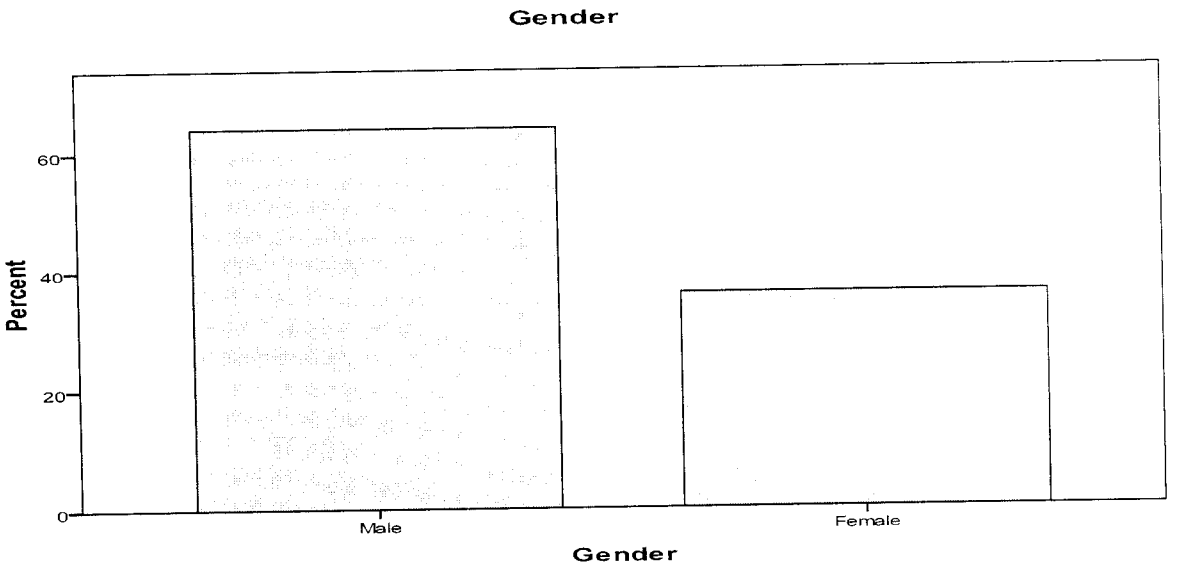
Interpretation:

From the above table it was found that the 64% of respondents are male and 36% of respondent are female.

Inference:

Hence, majority 64% of the respondents are male.

Chart 4.1: Gender



Pie Diagram 4.1: Gender

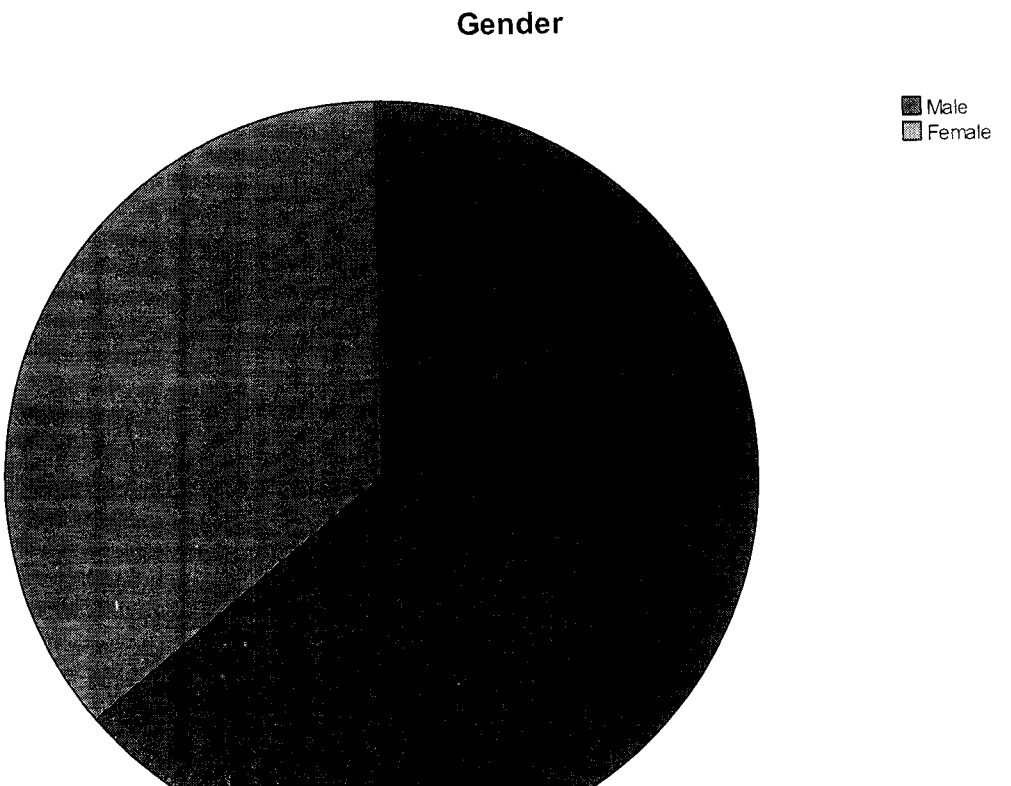


Table 4.2: The following table represents the age of the respondents

Age (in years)	**No. of Respondents**	**Percentage**
Below 25	1	1.0
25 – 35	54	54.0
35 – 45	37	37.0
Above 45	8	8.0
Total	100	100.0

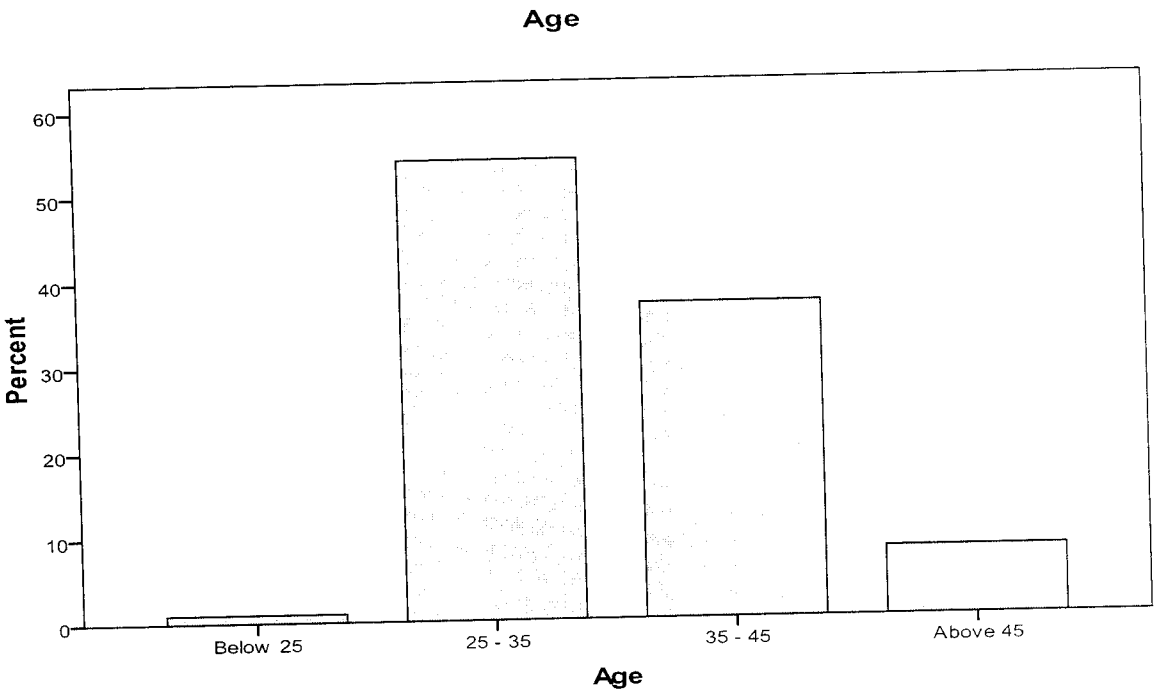
Interpretation :

From the above table it was found that the 1% of the respondent age below 25 years, 54% of the respondents age between 25 to 35 years, 37 % of the respondents age between 35 to 45 years, 8% of the respondents age above 45 years.

Inference:

Most of the respondents age are between 25 to 35 (54%) and 35 to 45 (37%) years.

Chart 4.2: Age of the Respondents



Pie Diagram 4.2: Age of the Respondents

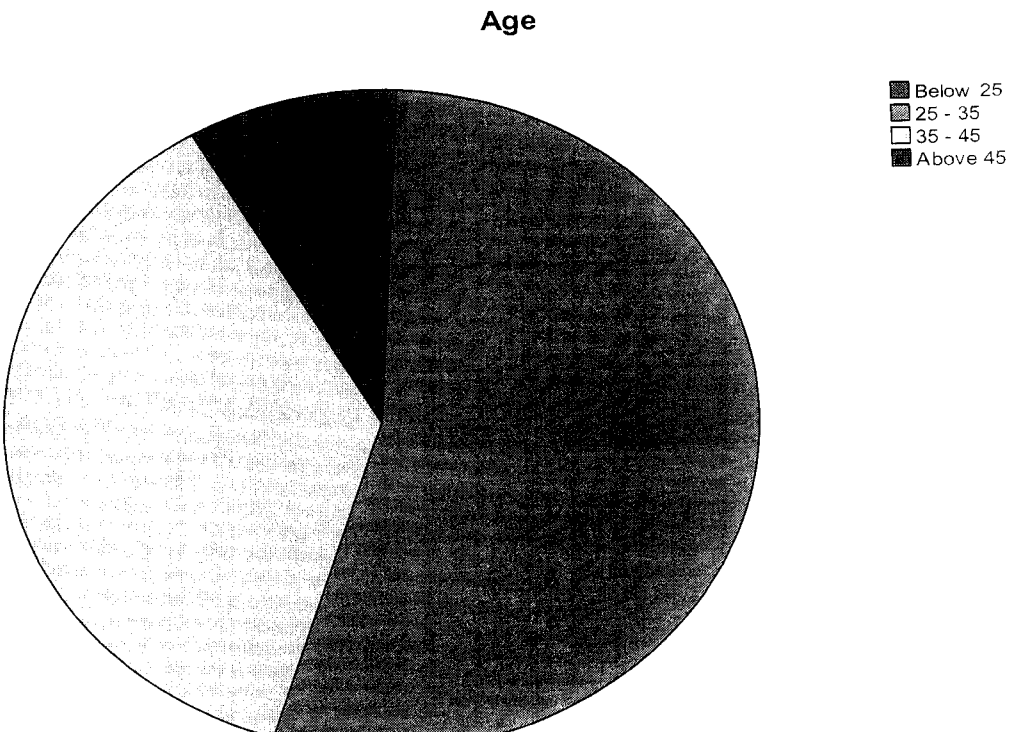


Table 4.3: The following table represents the education qualification of the respondents

Education Qualification	No. of Respondents	Percentage
UG	52	52.0
PG	38	38.0
PhD	10	10.0
Total	100	100.0

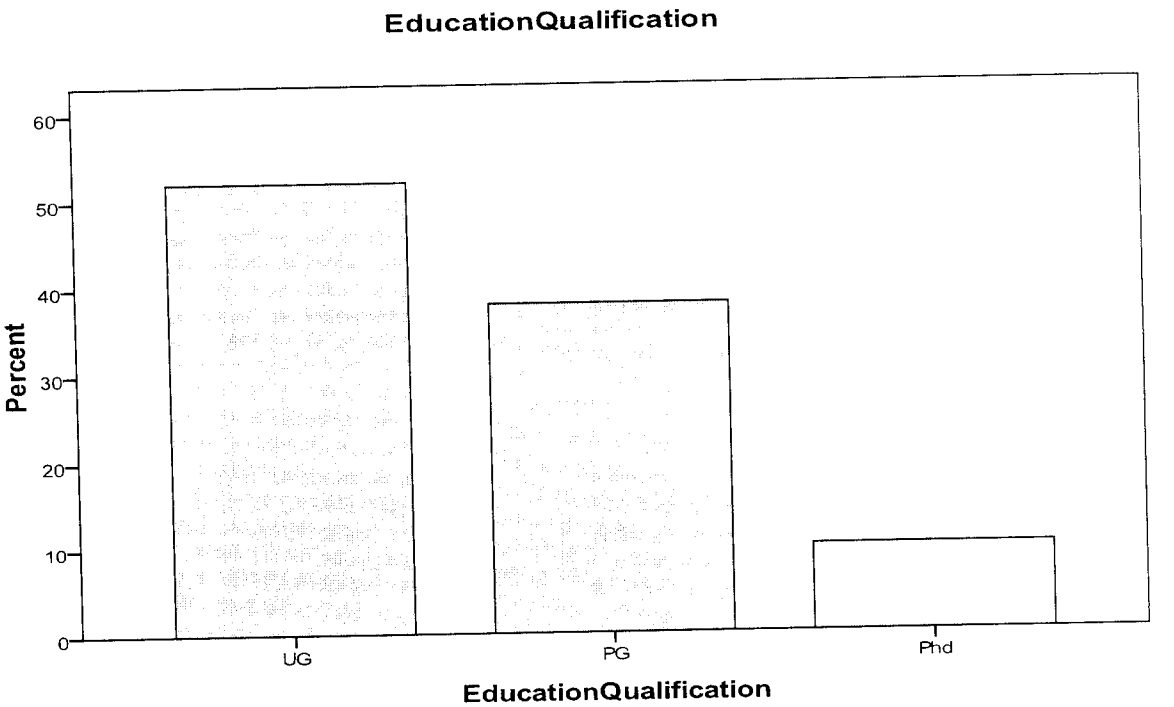
Interpretation:

From the above table it was found that the 52% of the respondents are Undergraduates, 38% of the respondents are Postgraduates and 10% of the respondents are PhD.

Inference:

Most of the respondents are Undergraduates (52%) and Postgraduates (38%).

Chart 4.3: Education Qualification of the respondents



Pie Diagram 4.3: Education Qualification of the respondents

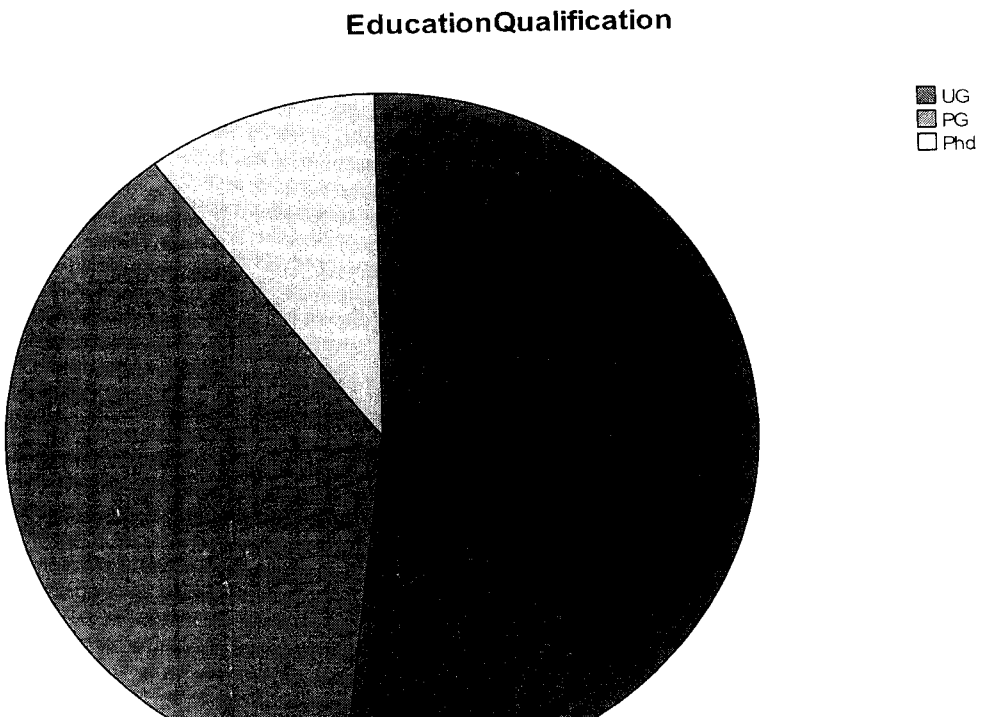


Table 4.4: The following table represents the occupation of the respondents

Occupation	**No. of Respondents**	**Percentage**
Principal	47	47.0
Technical Staff	39	39.0
Others	14	14.0
Total	100	100.0

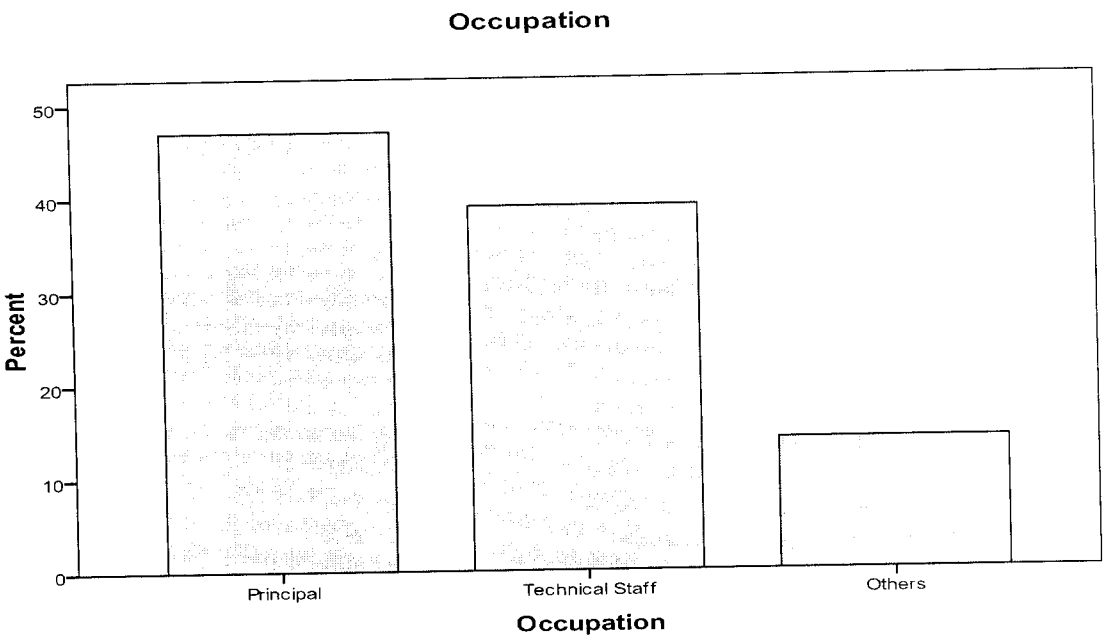
Interpretation:

From the above table it was found that the 47% of the respondents are principal, 39% of the respondents are technical staff and 14% of the respondents are others.

Inference:

Hence, most of the respondents are principal (47%) and Technical Staff (39%).

Chart 4.4: Occupation



Pie Diagram 4.4: Occupation

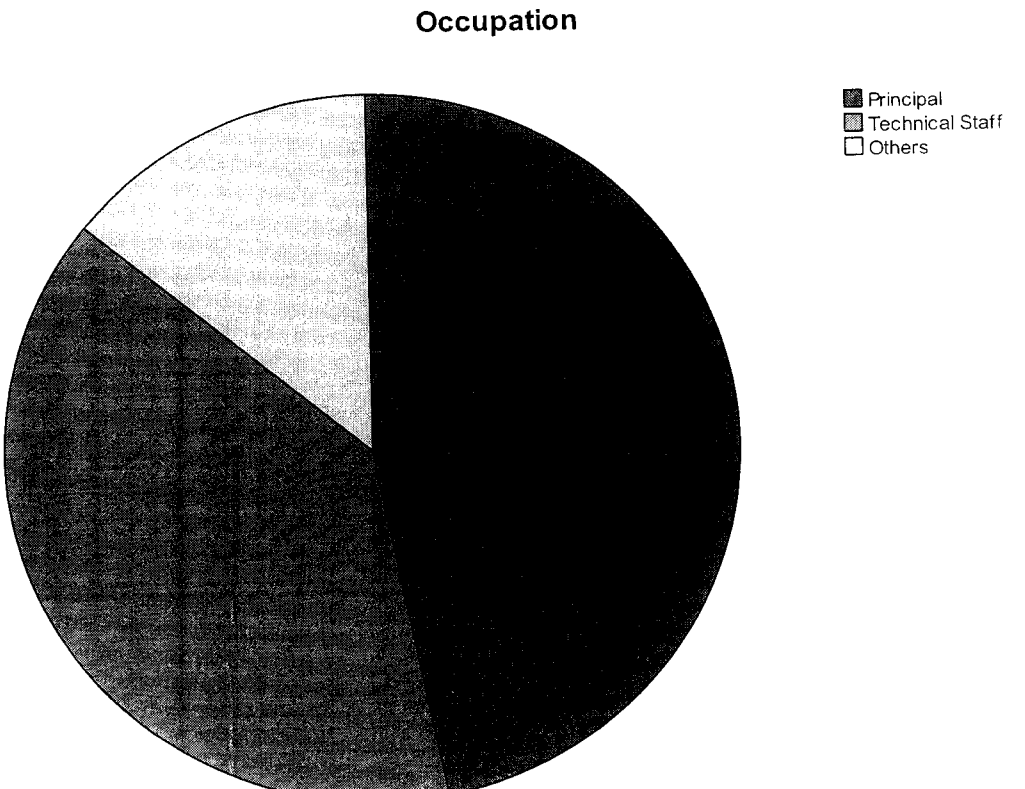


Table 4.5: The following table shows the way of school administration activities are recorded at present

Administration Activities	No. of Schools	Percentage
Using ERP System	4	4.0
Using Application Softwares	88	88.0
Manually	8	8.0
Total	100	100.0

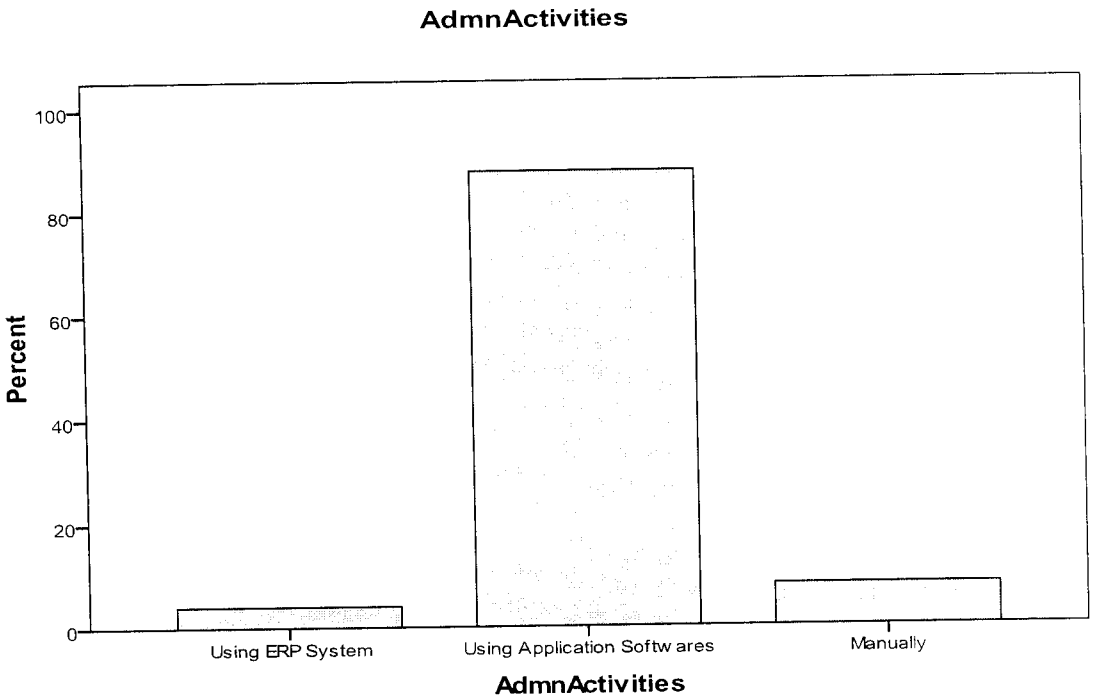
Interpretation:

From the above table it was found that the 4% of the schools are using ERP system for administration activities, 88% of the schools are using application softwares like MS-Office, Tally etc., and 8% of the schools are recorded manually administration activities.

Inference:

Most of the schools are using application softwares (88%) for administration activities.

Chart 4.5: School administration activities recorded at present



Pie Diagram 4.5: School Administration activities recorded at present

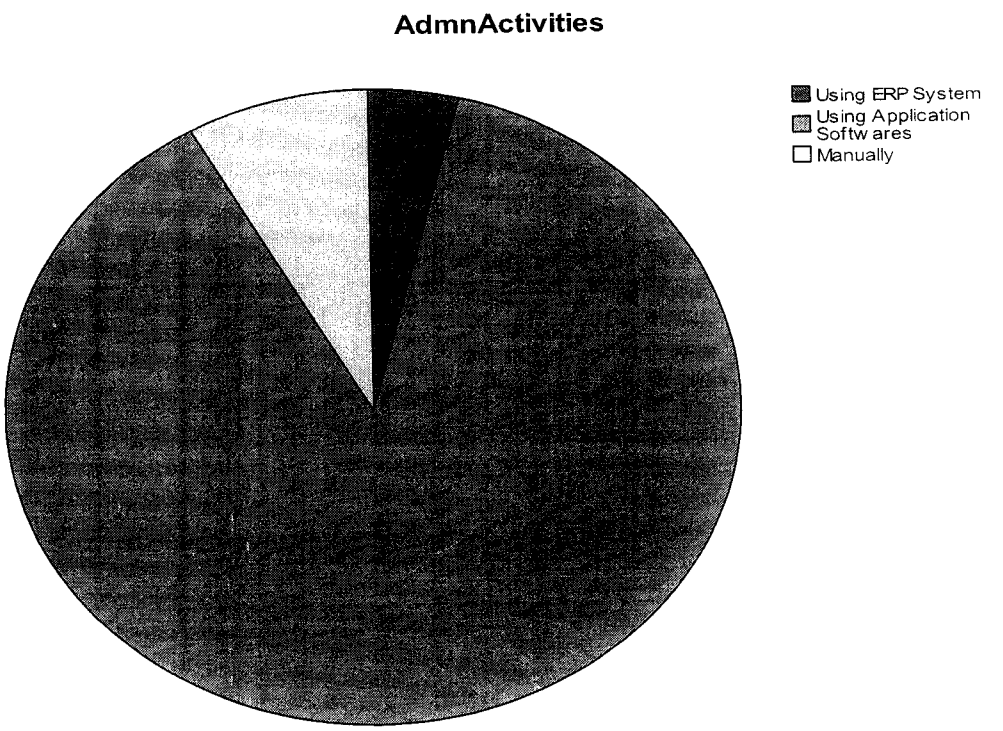


Table 4.6: The following table show that the school administration activities often recorded

Administration Activities often	Frequency	Percent
Regularly	96	96.0
Somewhat Regularly	4	4.0
Total	100	100.0

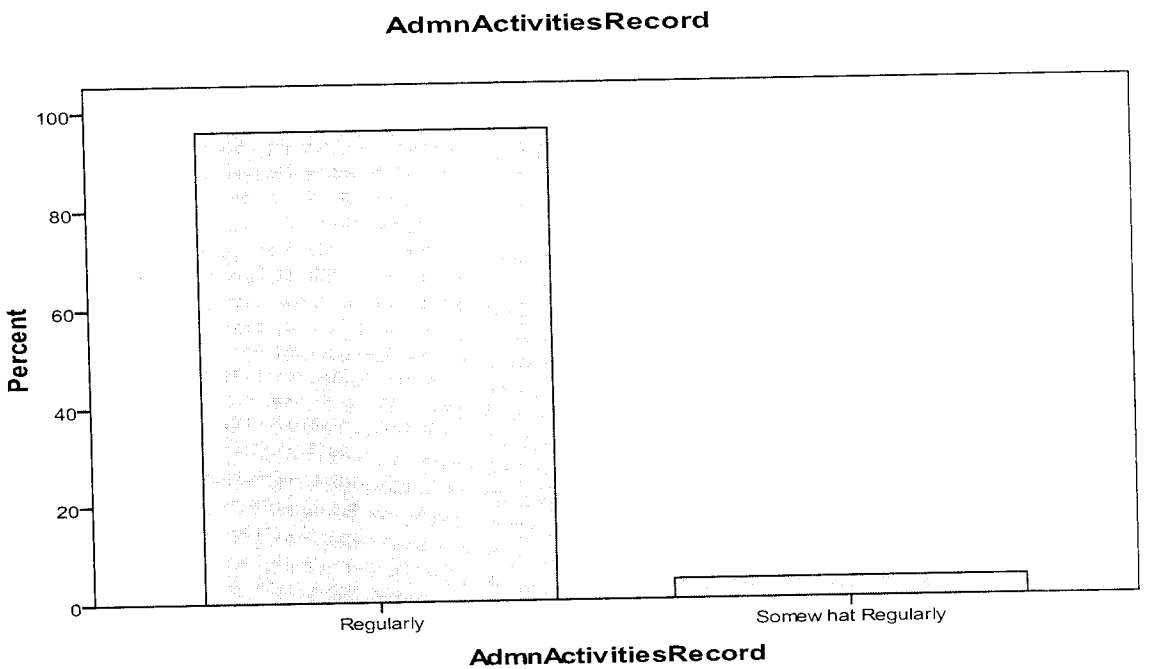
Interpretation:

From the above table it was found that the 96% of the schools are recorded administration activities regularly and 4% of the schools are recorded adminisration activities somewhat regularly.

Inference:

Most of the schools are recorded adminiatration activities regularly (96%).

Chart 4.6: Administration Activities often recorded



Pie Diagram 4.6: Administration Activities often recorded

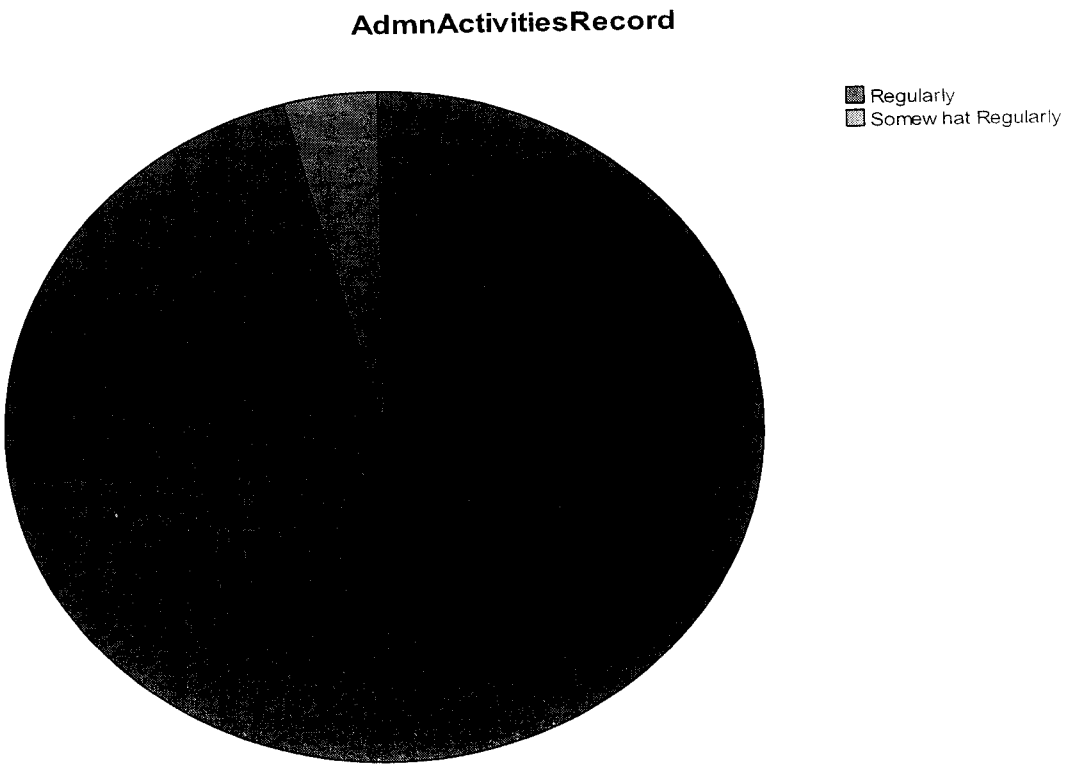


Table 4.7: The following table represents the strength (number of students) of the schools

No. of Students	No. of Schools	Percentage
Below 200	3	3.0
200 – 500	28	28.0
500 – 1000	39	39.0
1000 – 1500	16	16.0
Above 1500	14	14.0
Total	100	100.0

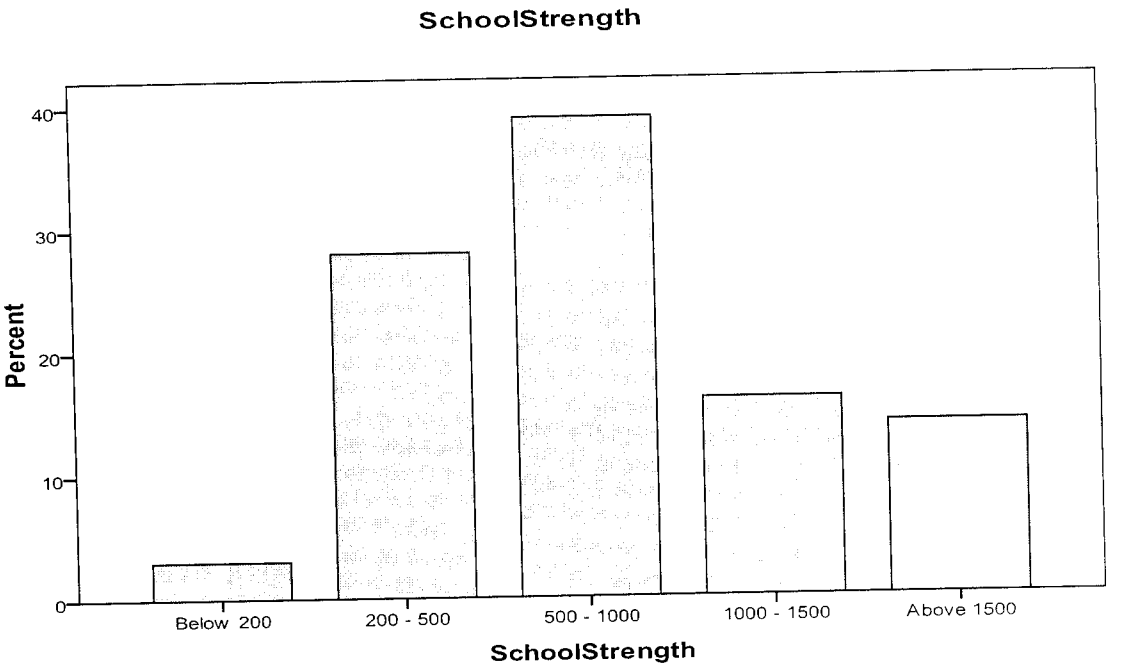
Interpretation:

From the above table it was found that the 3% of the schools having below 200 students, 28% of the schools having 200 to 500 students, 39% of the schools having 500 to 1000 students, 16% of the schools having 1000 to 1500 students and 46% of the schools having above 1500 students.

Inference:

Hence, the 39% of the schools having 500 to 1000 students.

Chart 4.7: School Strength



Pie Diagram 4.7: School Strength

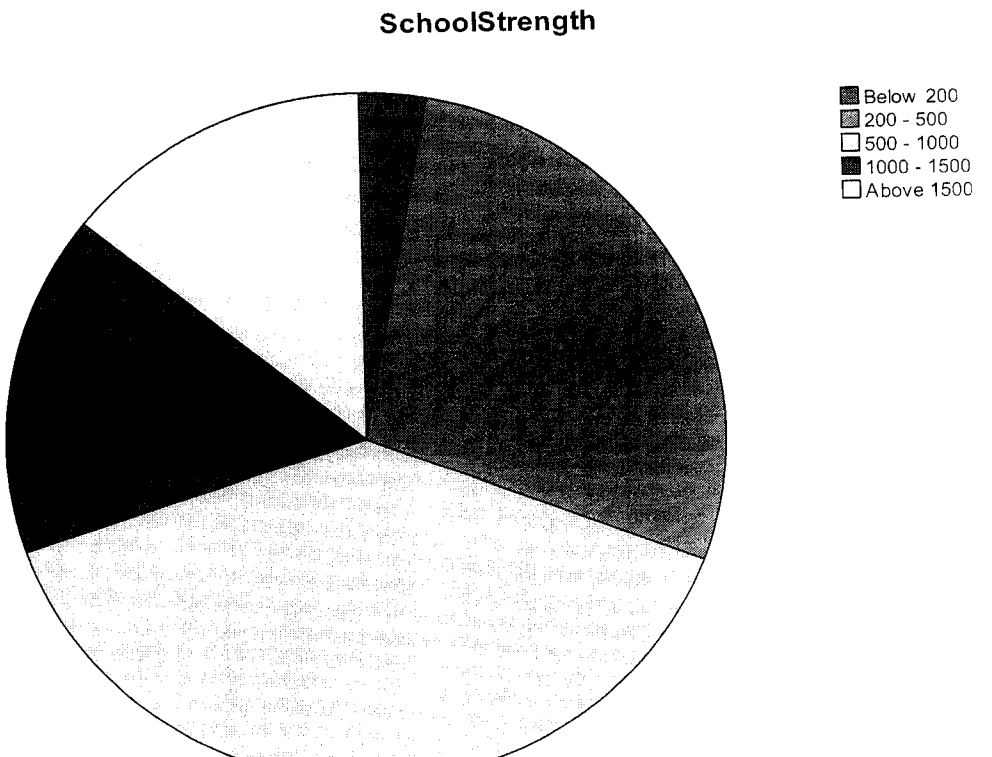


Table 4.8: The following table represents the number of branches in the schools

School Branches	No. of Schools	Percentage
1.00	94	94.0
2.00	2	2.0
3.00	4	4.0
Total	100	100.0

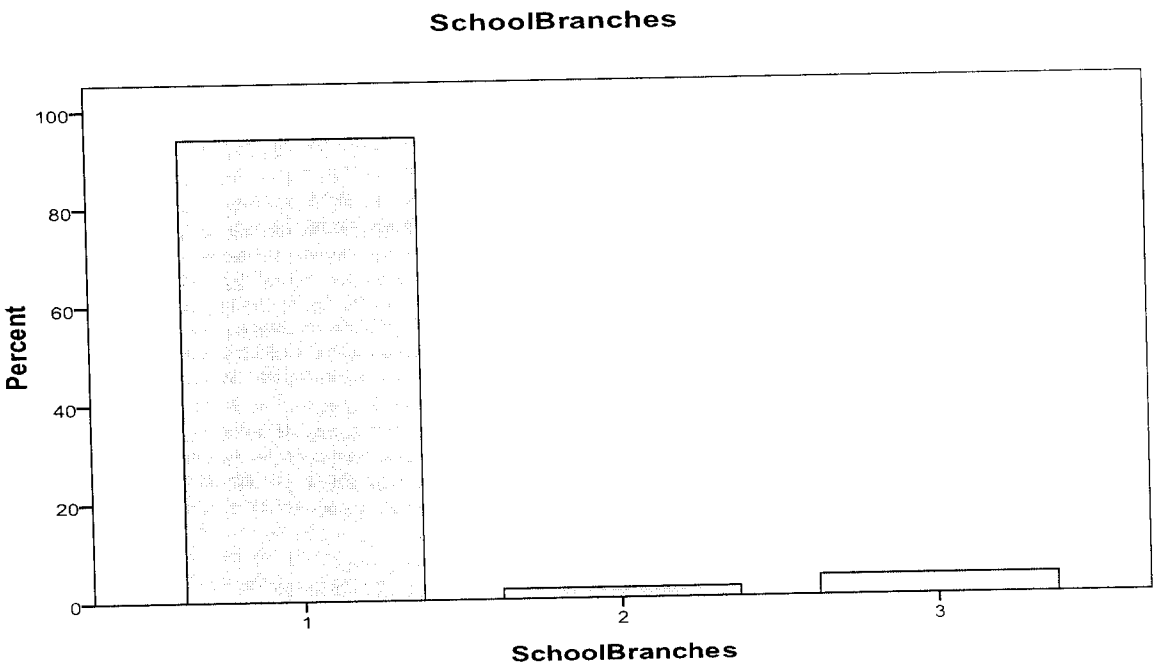
Interpretation:

From the above table it was found that the 94% of the schools having only one branch, 2% of the schools having two branches and 4% of the schools having three branches.

Inference:

In this sampling, Most of the schools having only one branch (94%).

Chart 4.8: School Branches



Pie Diagram 4.8: School Branches

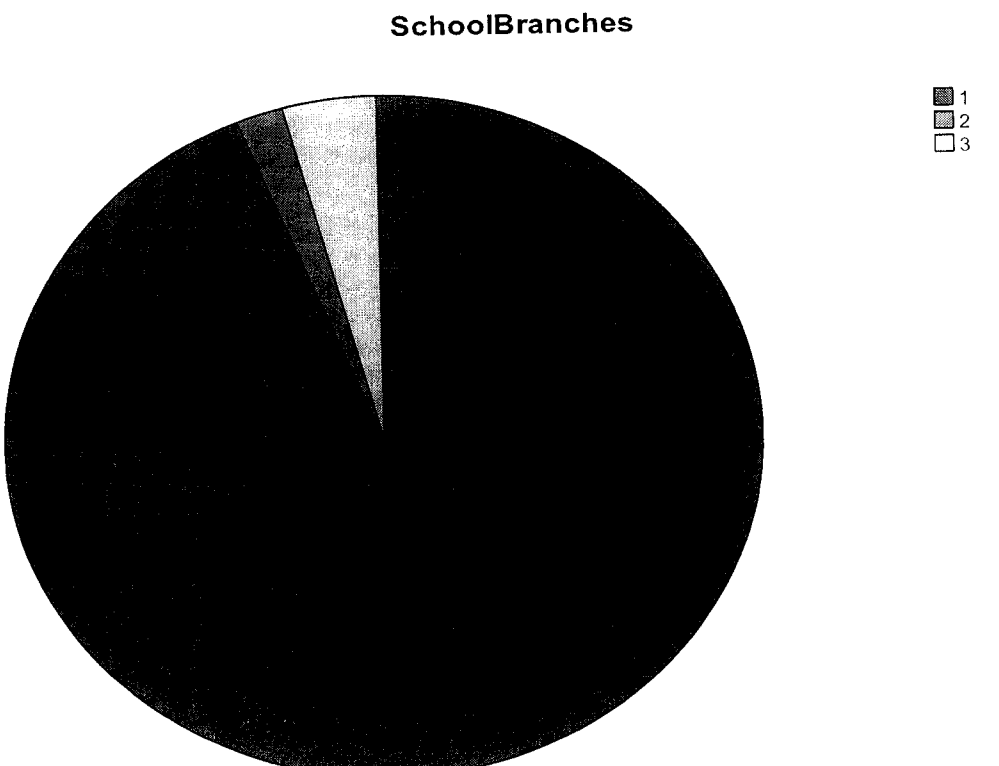


Table 4.9: The following table represents that the schools are having centralized system operation for branches

Centralized Operation	No. of Schools	Percentage
No	6	6.0
Only one branch	94	94.0
Total	100	100

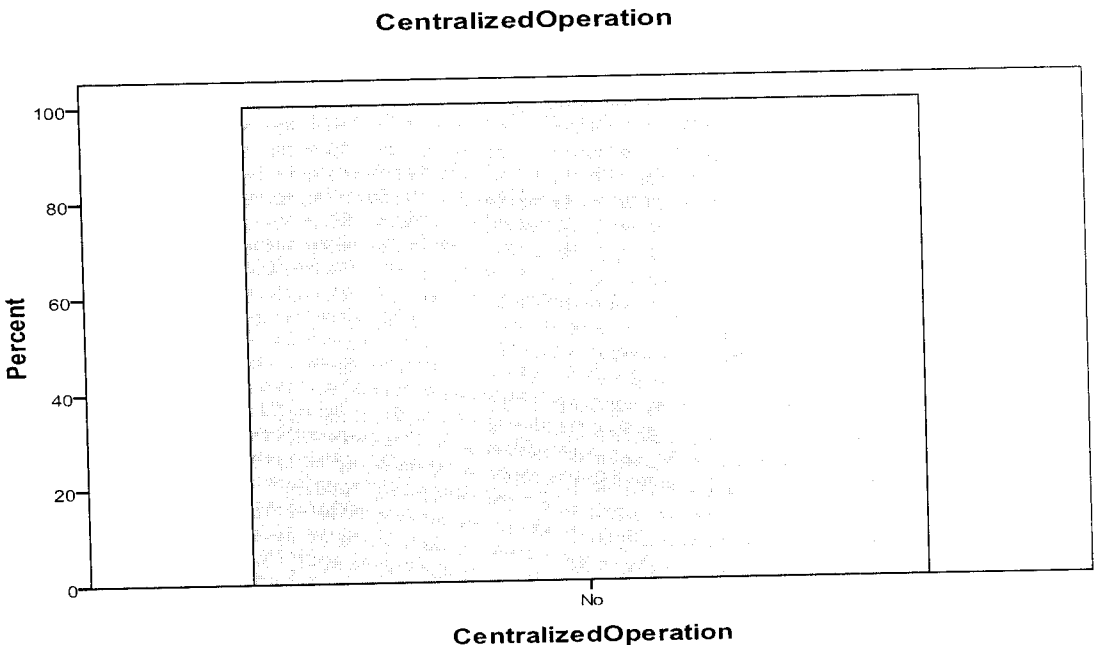
Interpretation:

From the above table it was found that the 6% of the schools having more than one branch and the schools did not provide centralized system in school branches, and then remaining 94% of the schools are having only one branch.

Inference:

Out of 100 schools only 6 schools having more than one branch and there is no centralized system operation in school branches.

Chart 4.9: Centralized System Operation



Pie Diagram 4.9: Centralized System Operation

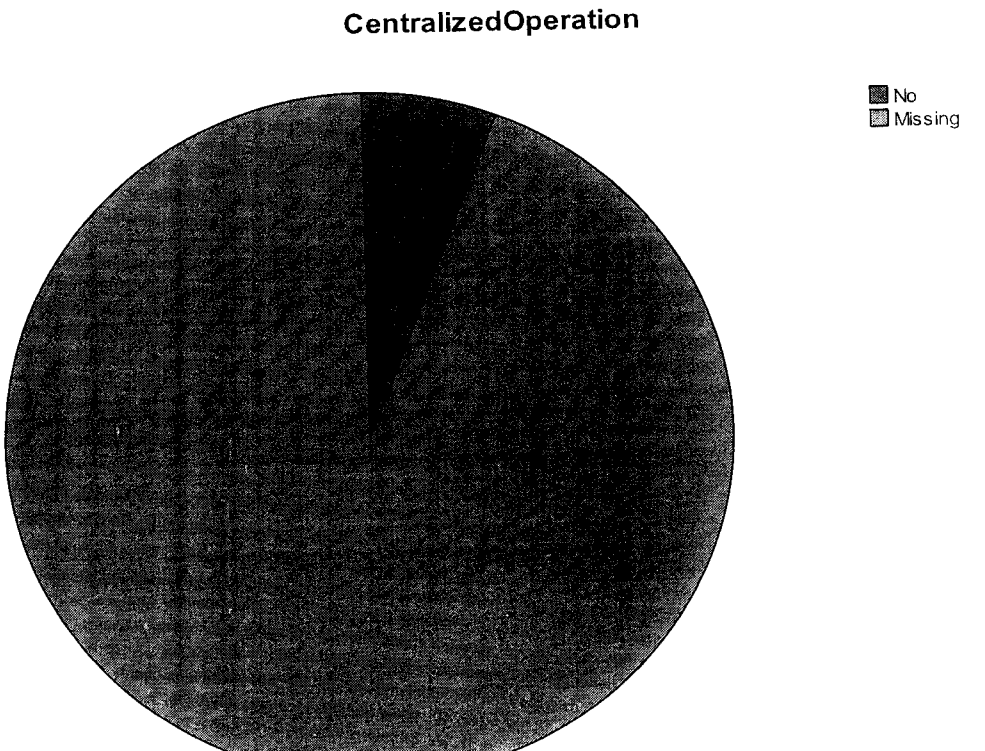


Table 4.10: The following table represents the system update database of the schools

System Update Database	No. of Schools	Percentage
Yes	100	100.0

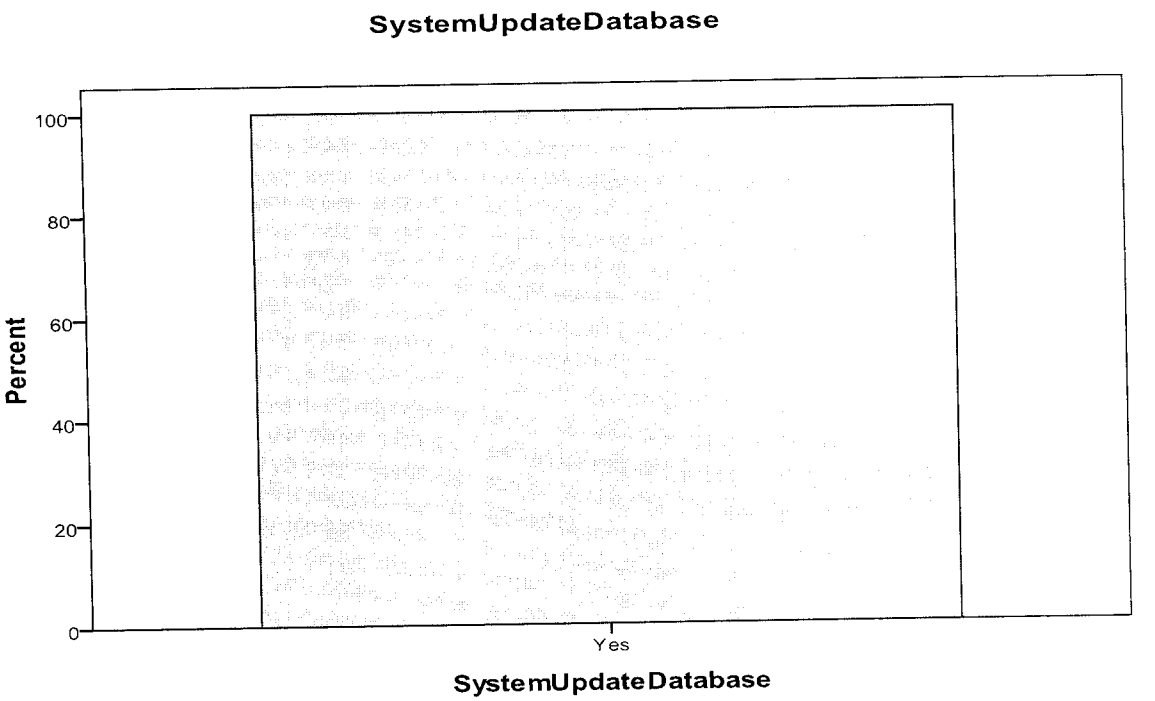
Interpretation:

From the above table it was found that the 100% of the schools provide updated system database regarding with exams, homework, students and stuff details etc.,

Inference:

All Schools updating the database with real time simultaneously.

Chart 4.10: System Update Database



Pie Diagram 4.10: System Update Database

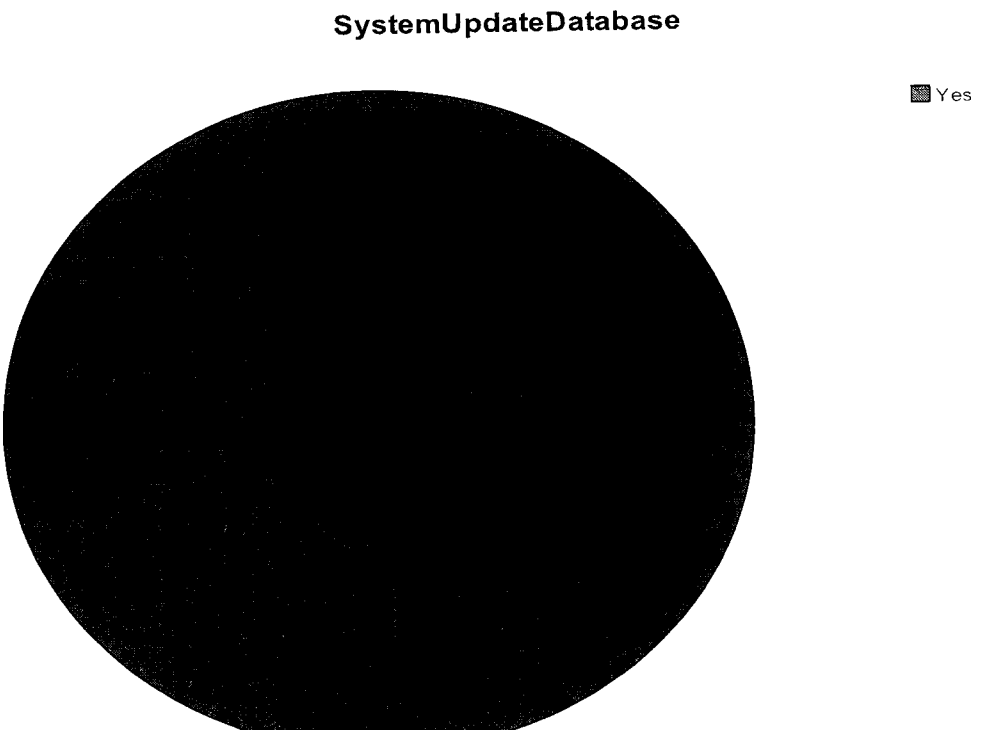


Table 4.11: The following table represents that those schools having system update database with web enabled

System Web-Enabled	No. of Schools	Percentage
Yes	2	2.0
No	98	98.0
Total	100	100.0

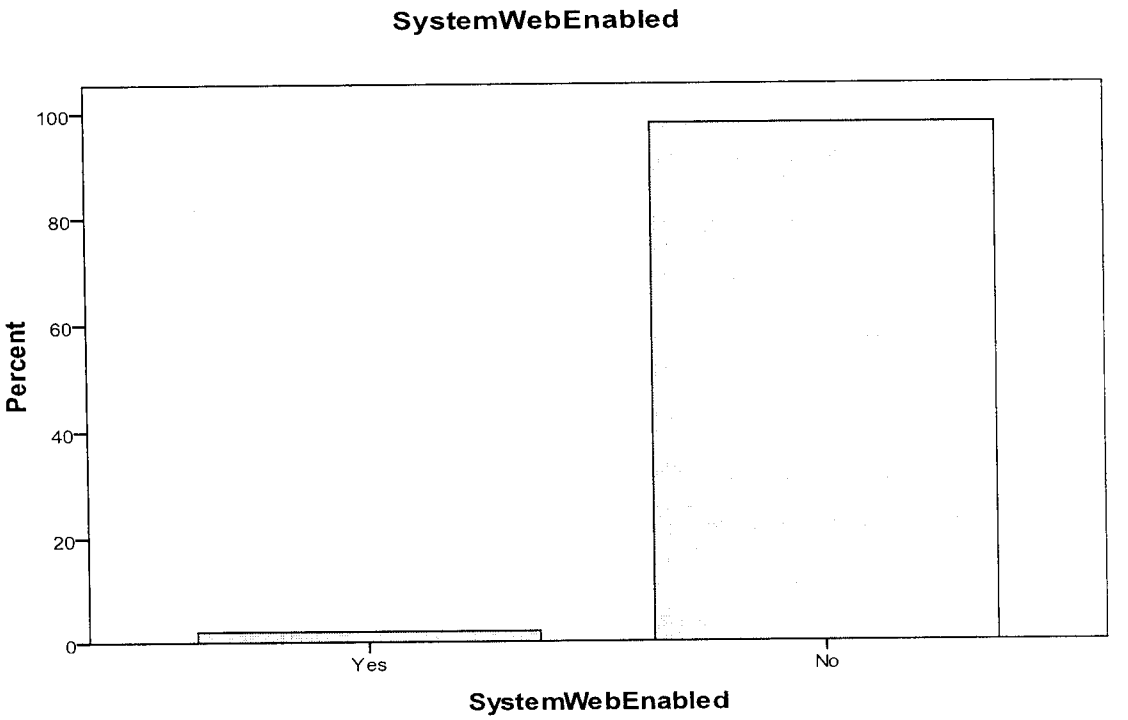
Interpretation:

From the above table it was found that the 2% of the schools having web enabled system database and remaining 98% of the schools are not having web enabled database.

Inference:

Most of the schools did not having web enabled database (98%).

Chart 4.11: Web-Enabled Database



Pie Diagram 4.11: Web-Enabled Database

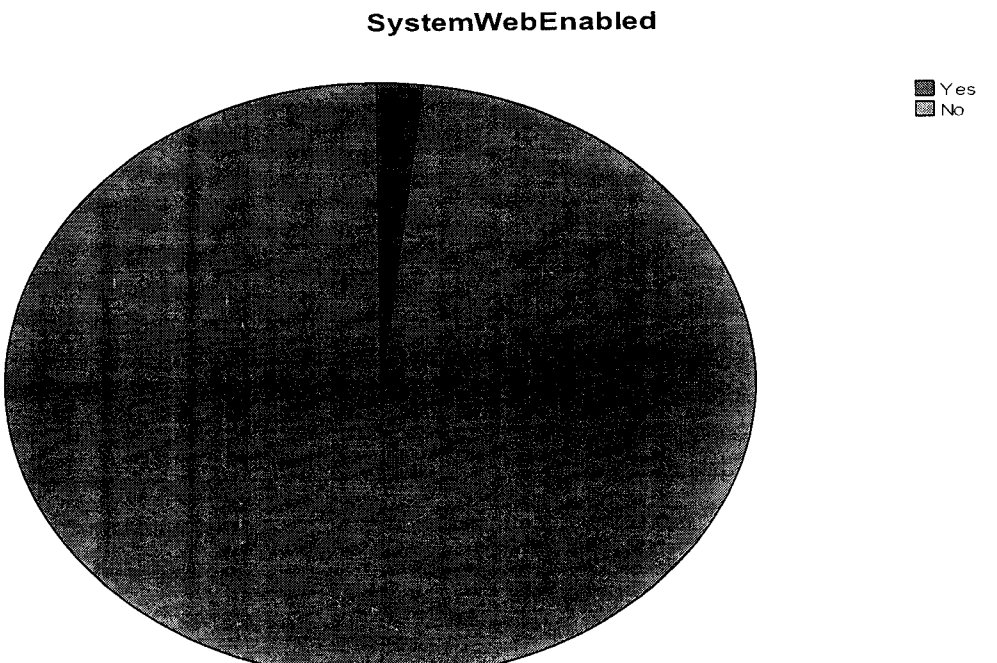


Table 4.12: The following table represents the ERP system reduce paperwork and human effort in schools

Reduce Paperwork & Human Effort	No. of Respondents	Percentage
Yes, to a large extent	39	39.0
Not much difference	40	40.0
I do not know	21	21.0
Total	100	100.0

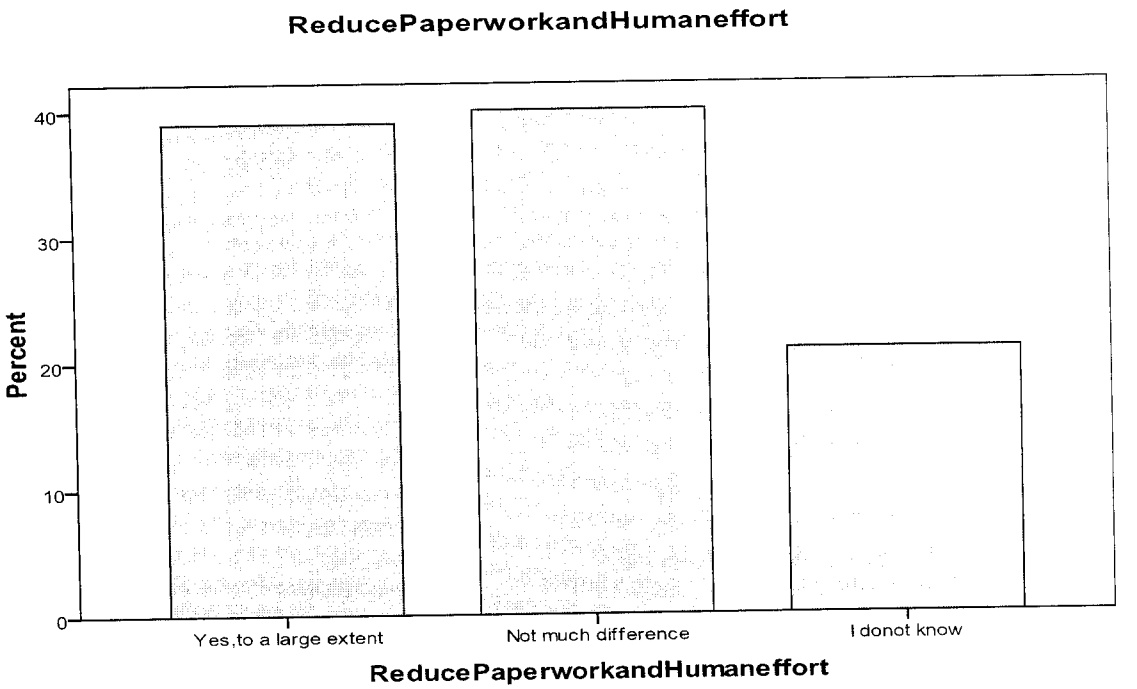
Interpretation:

From the above table it was found that the 39% of the respondents accept that the ERP system reduce the human effort and paperwork, 40% of the respondents said that there is no differnce in ERP system and 21% of the respondents said that they don't know about it.

Inference:

Most of the respondents said that ERP system make no differnce and accept the ERP system reduce the human effort and paperwork.

Chart 4.12: ERP reduce Paperwork and Human effort



Pie Diagram 4.12: ERP reduce Paperwork and Human effort

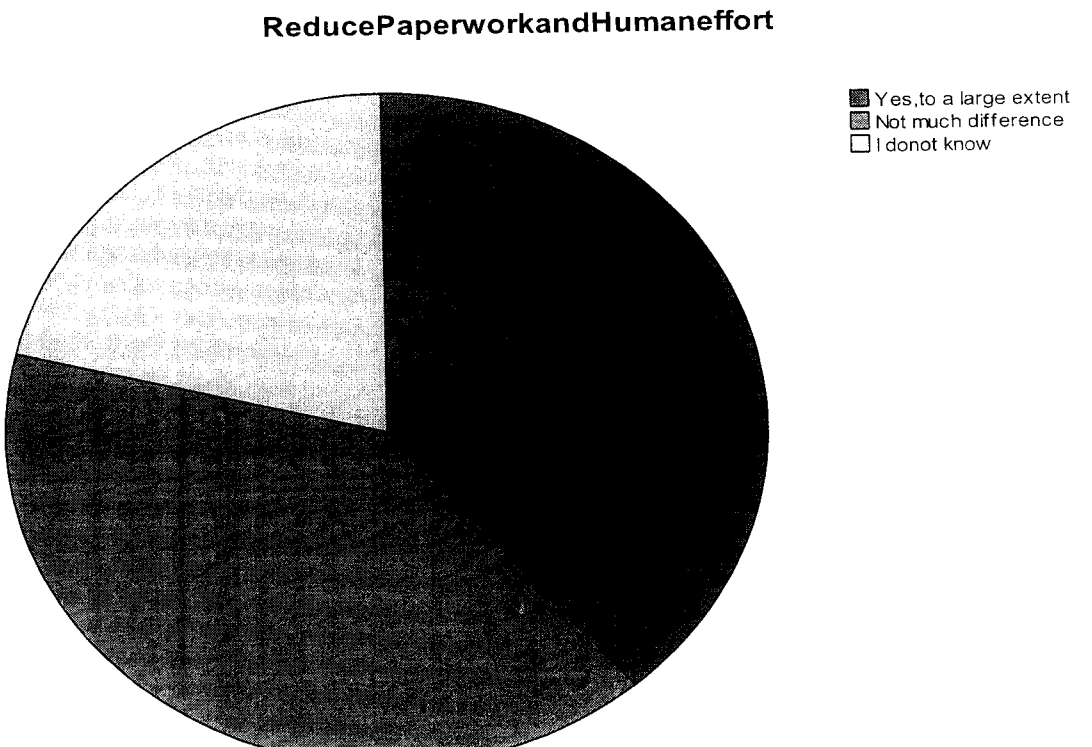


Table 4.13: The following table represents the ERP system consumes less time

Consumes Less Time	No. of Respondents	Percentage
Yes	41	41.0
I do not Know	59	59.0
Total	100	100.0

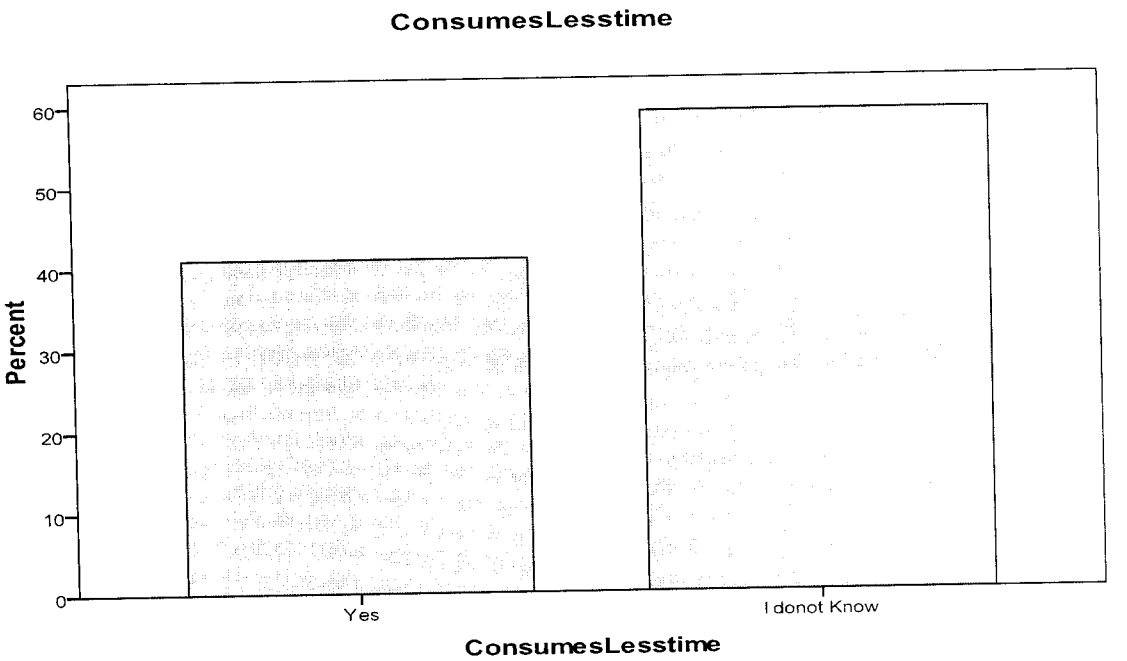
Interpretation:

From the above table it was found that the 41% of the respondents accept the ERP system consumes less time and 59% of the respondents said that they didn't know about it.

Inference:

All the respondents didn't say that the ERP system not consumes less time and they accept the ERP consumes less time or they didn't know about it.

Chart 4.13: ERP Consumes Less time



Pie Diagram 4.13: ERP Consumes less time

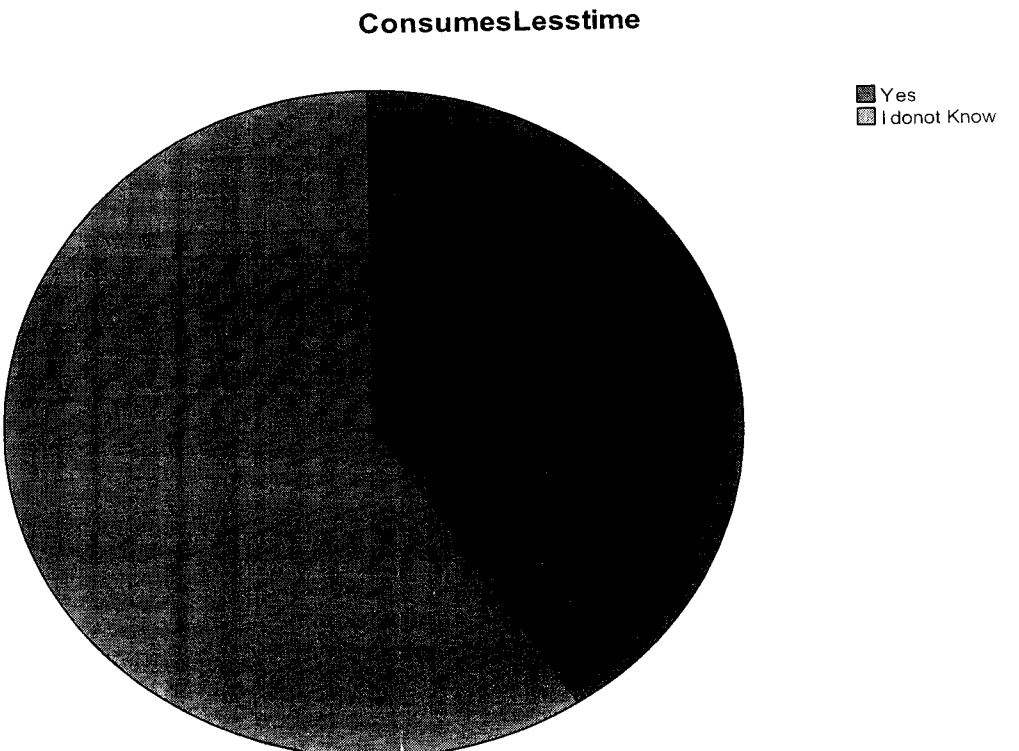


Table 4.14: The following table represents that the ERP non-users provide ERP in near future

ERP in near Future	No. of Schools	Percentage
Yes	95	95.0
No	1	1.0
Total	96	96.0
ERP Users	4	4.0
Total	100	100.0

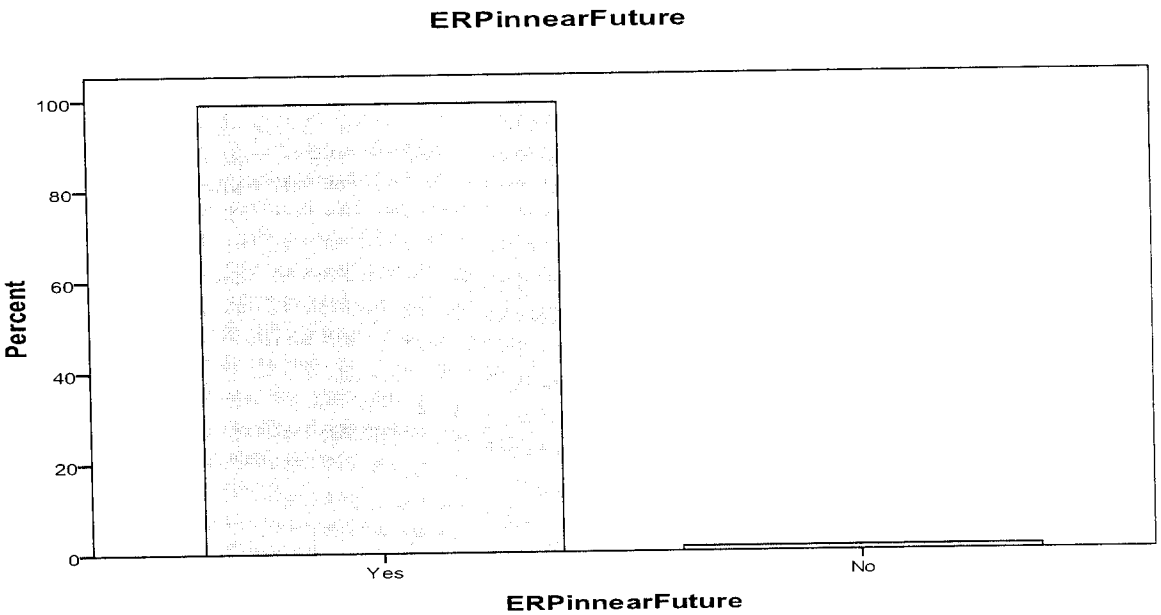
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP non-users 95% of the schools said that they provide ERP in the future.

Inference:

Most of the ERP non-users (95%) said that they provide ERP in future.

Chart 4.14: ERP in near Future



Pie Diagram 4.14: ERP in near Future

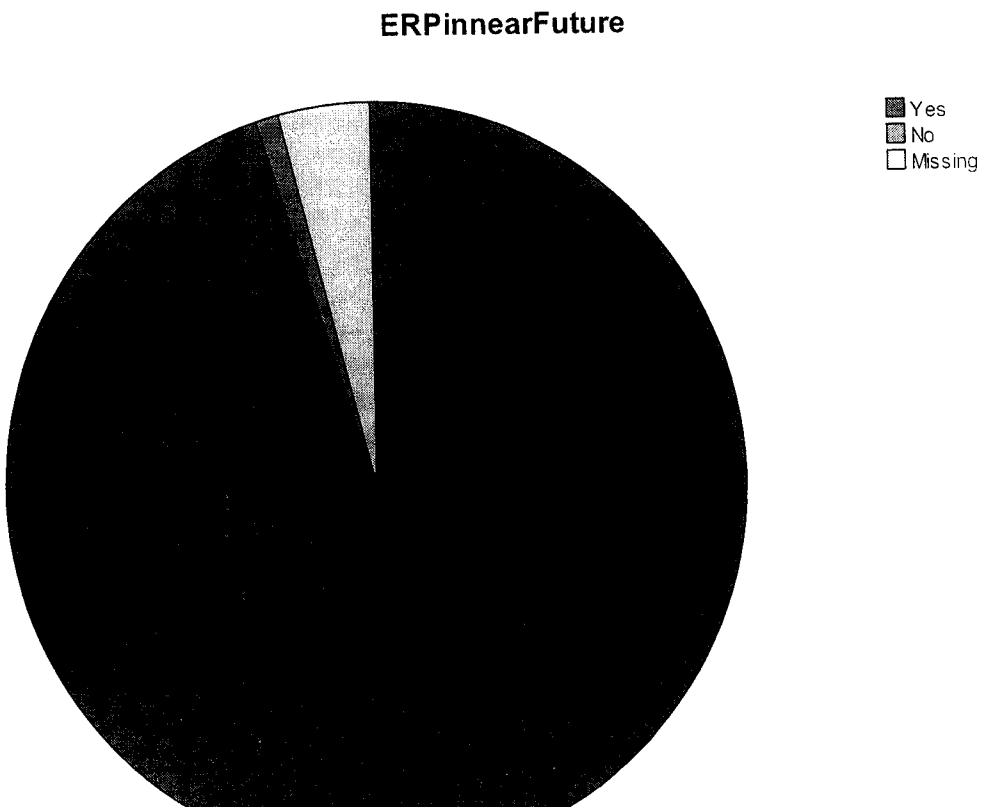


Table 4.15: The following table represents the ERP non-user prefer type of ERP

Type of ERP	No. of Schools	Percentage
Web Based	68	68.0
Both	27	27.0
None	1	1.0
Total	96	96.0
ERP Users	4	4.0
Total	100	100.0

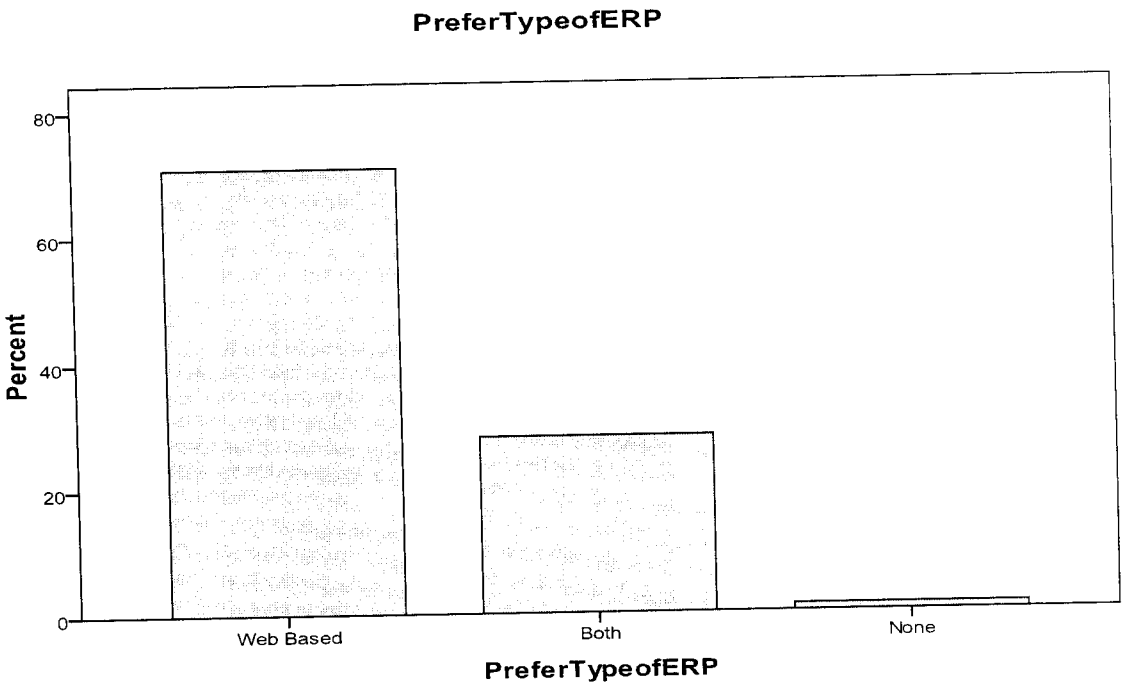
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP non-users 68% of the schools are prefer Web based ERP, 27% of the schools are prefer both LAN based and Web based ERP and 1% of the school didn't prefer the ERP.

Inference:

Most of the schools prefer Web based ERP (68%) and no one prefer only LAN based ERP.

Chart 4.15: Prefer type of ERP



Pie Diagram 4.15: Prefer type of ERP

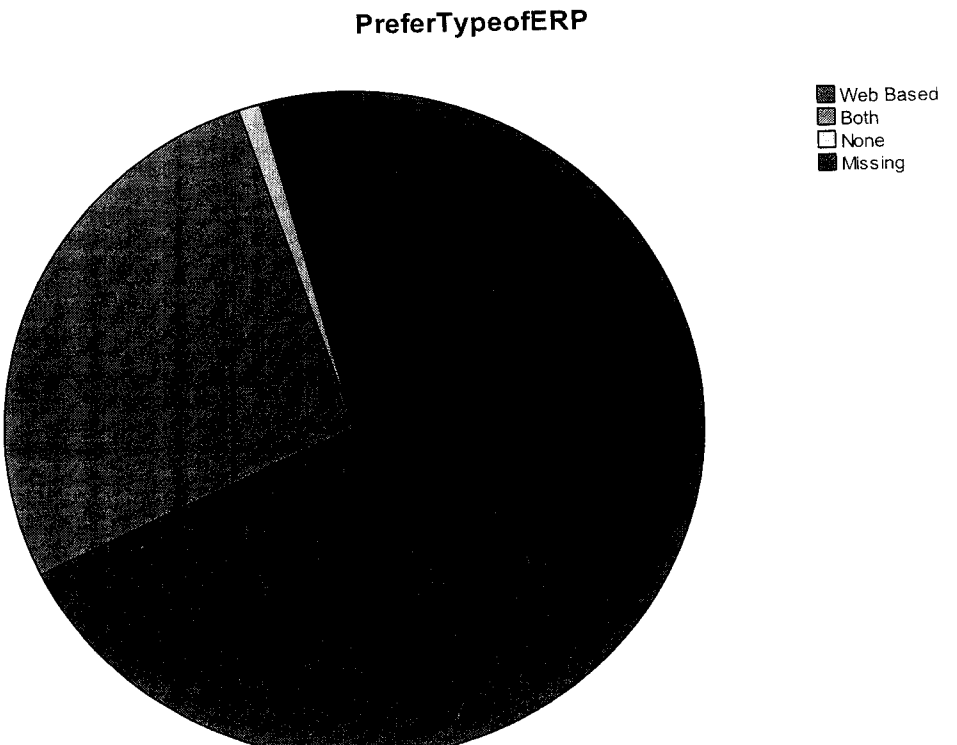


Table 4.16: The following table represents the ERP non-users expect in the ERP system

Expect in the ERP System	No. of Schools	Percentage
Low Price	7	7.0
All Above	89	89.0
Total	96	96.0
ERP Users	4	4.0
Total	100	100.0

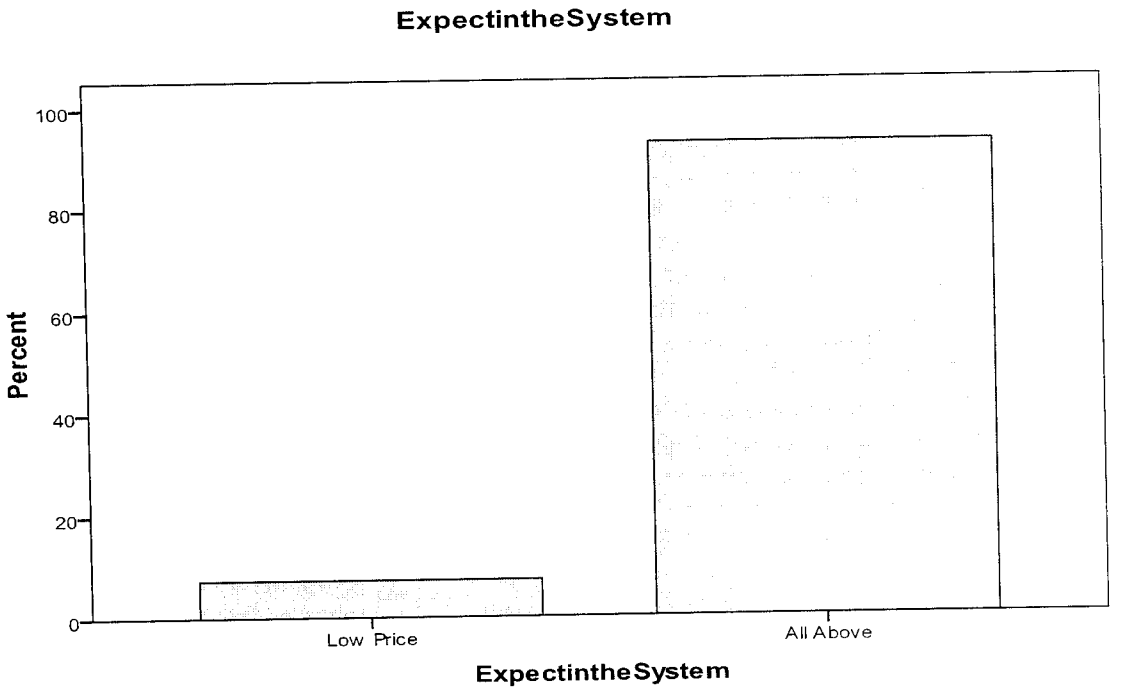
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP non-users 89% of the schools are expect service, quality, low price, maintainence in the ERP system and 7% of the schools expect low price in the ERP system.

Inference:

Most of the schools (89%) expect service,quality, low price and maintainence in the ERP System.

Chart 4.16: Expect in the ERP System



Pie Diagram 4.16: Expect in the System

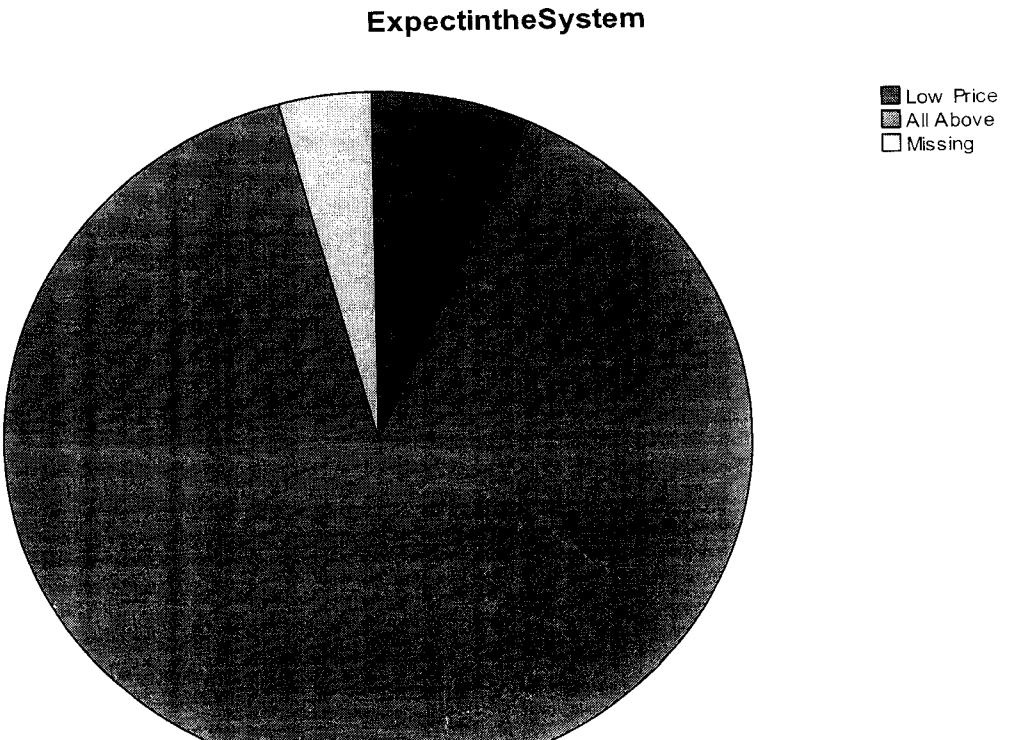


Table 4.17: The following table represents the type of ERP in the schools

Type of ERP	Frequency	Percent
LAN Based	3	3.0
Both	1	1.0
Total	4	4.0
ERP Non-Users	96	96.0
Total	100	100.0

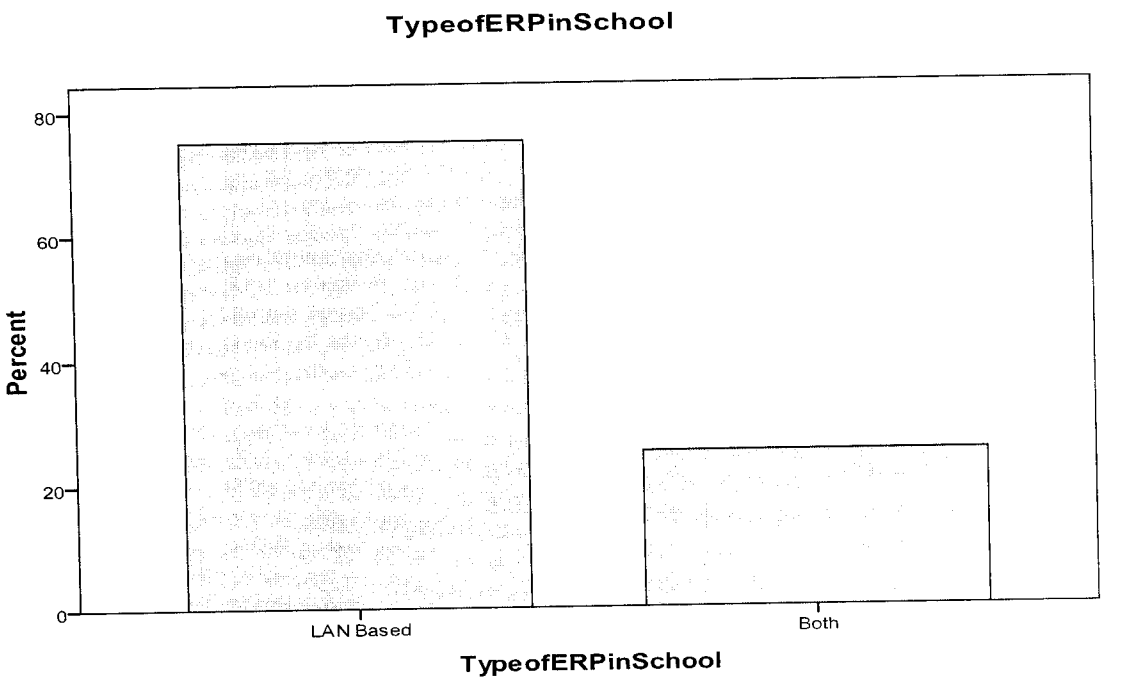
Interpretation:

From the above table it was found that the 4% of the schools are ERP users and 96% of the schools are ERP users. In ERP users 3% of the schools are having LAN based ERP and 1% of the schools are having both LAN and Web based ERP.

Inference:

Most of the ERP users are having LAN based ERP. No one school having web based ERP.

Chart 4.17: Type of ERP in the Schools



Pie Diagram 4.17: Type of ERP in the Schools

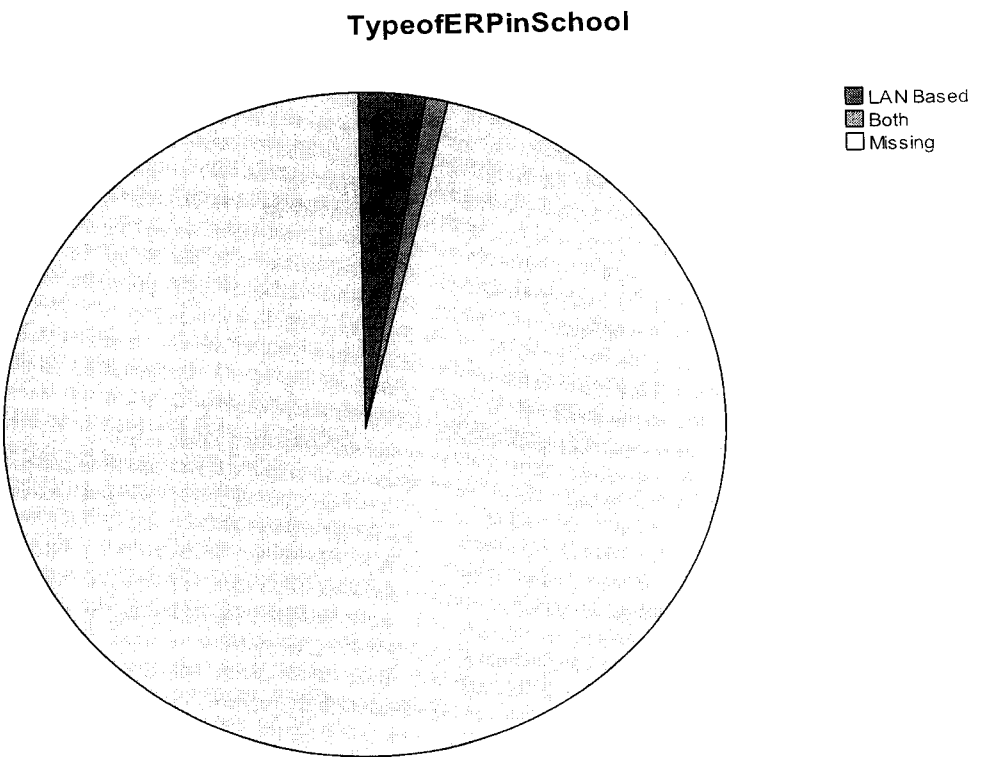


Table 4.18: The following table represents that the ERP user having online test, query and notes facilities in the ERP system

Online test, Query and Notes	Frequency	Percent
Yes	1	1.0
No, we don't have such system	3	3.0
Total	4	4.0
ERP Non-Users	96	96.0
Total	100	100.0

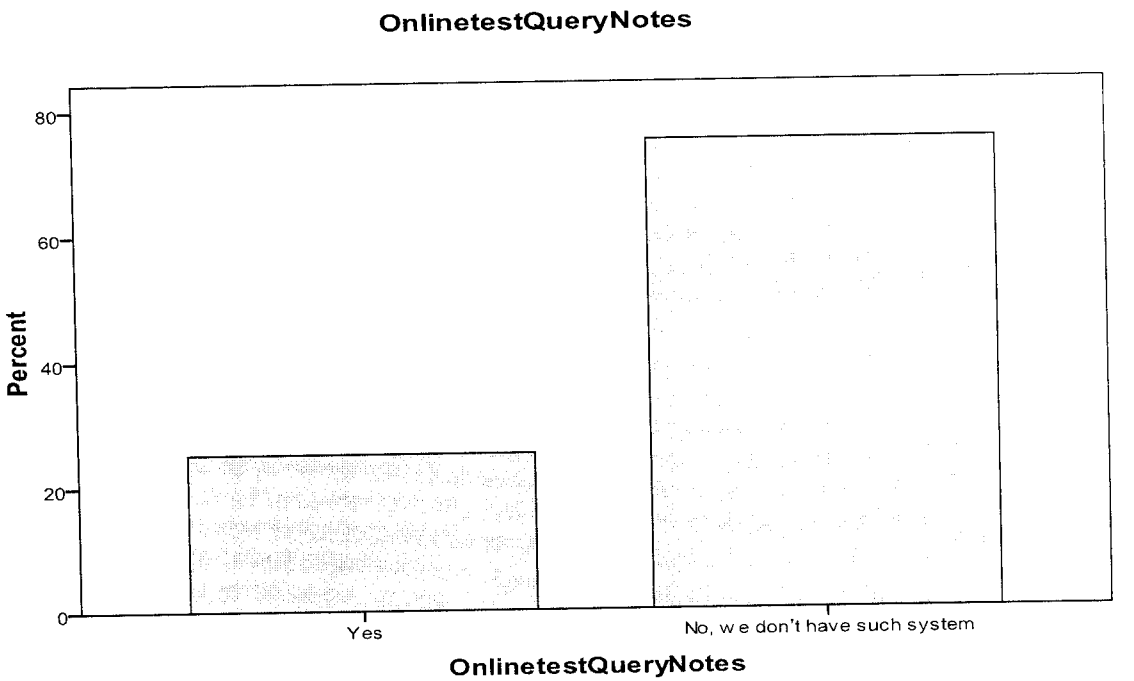
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP users 1% of the schools are having the online test, query and notes facilities in the ERP system and 3% of the schools are not having this facilities.

Inference:

Most of the ERP users not having the online test, query and notes facilities in the ERP system.

Chart 4.18: Online test, Query and Notes facilities



Pie Diagram 4.18: Online test, Query and Notes facilities

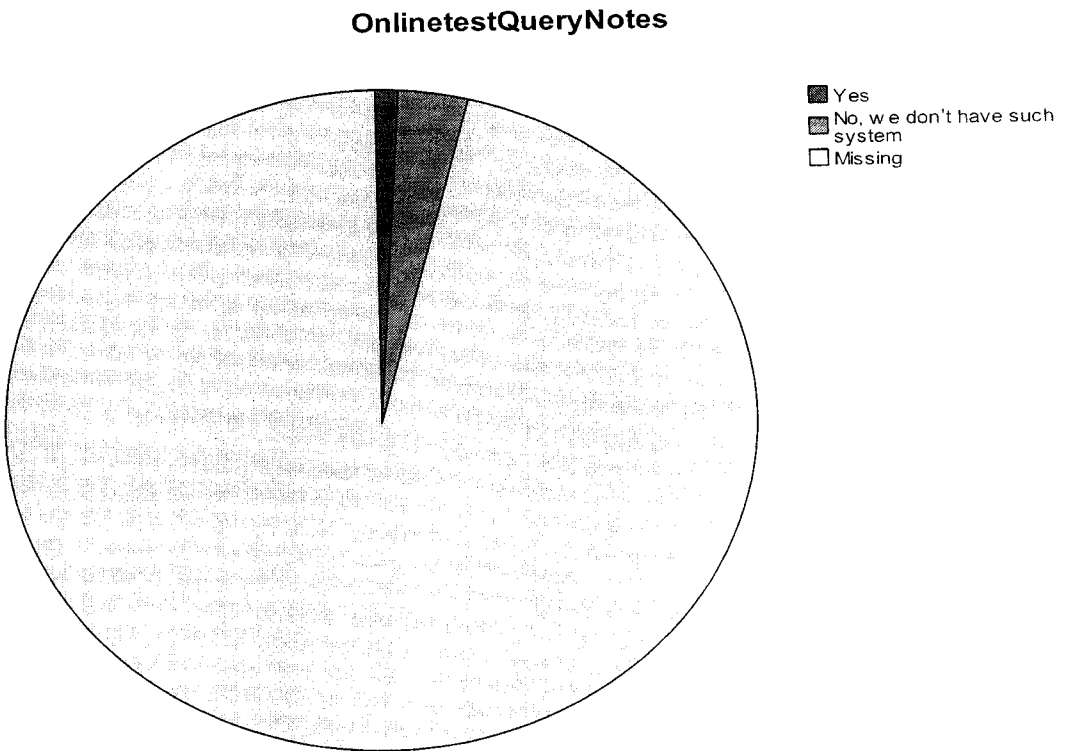


Table 4.19: The following represents the schools provide SMS facilities in ERP System

SMS Facilities	No. of Schools	Percentage
Yes	1	1.0
No	3	3.0
Total	4	4.0
ERP Non-Users	96	96.0
Total	100	100.0

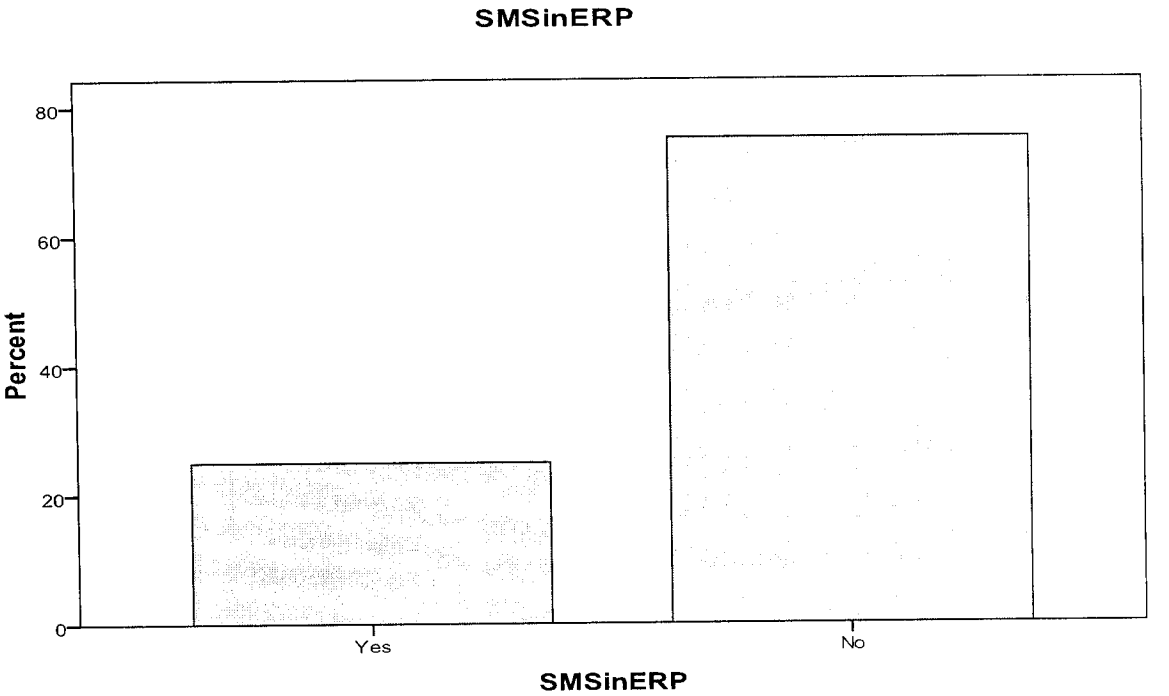
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP users 1% of the schools are having SMS facilities in the ERP system and 3% of the schools are not having the SMS facilities in the ERP System.

Inference:

Most of the schools (ERP users) are not having the SMS facilities in the ERP System.

Chart 4.19: SMS Facilities in ERP System



Pie Diagram 4.19: SMS Facilities in ERP System

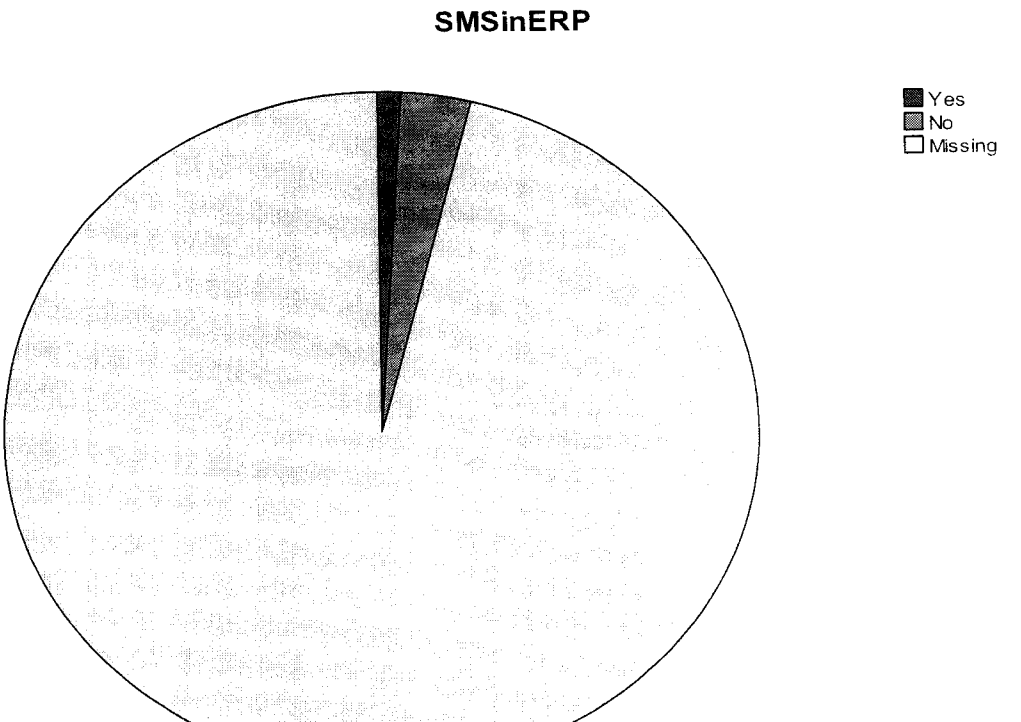


Table 4.20: The following table represents the bunch SMS facilities in the schools

Bunch SMS	No. of Schools	Percentage
No	1	1.0
Bunch SMS Non-Users	3	3.0
ERP Non-Users	96	96.0
Total	100	100.0

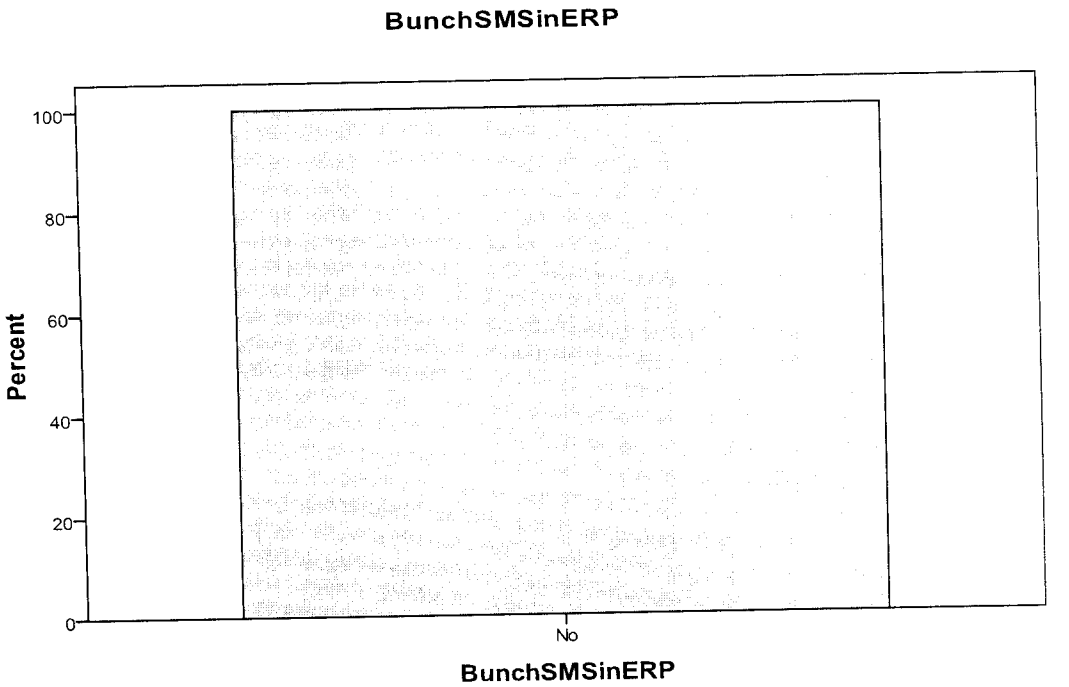
Interpretation:

From the above table it was found that the 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP users 1% of the schools are having bunch SMS option in the ERP system and 3% of the schools are not having sms option in the ERP system.

Inference:

Most of the schools those having ERP system are not have bunch SMS option in the ERP system.

Chart 4.20: Bunch SMS Option in ERP System



Pie Diagram 4.20: Bunch SMS Option in ERP System

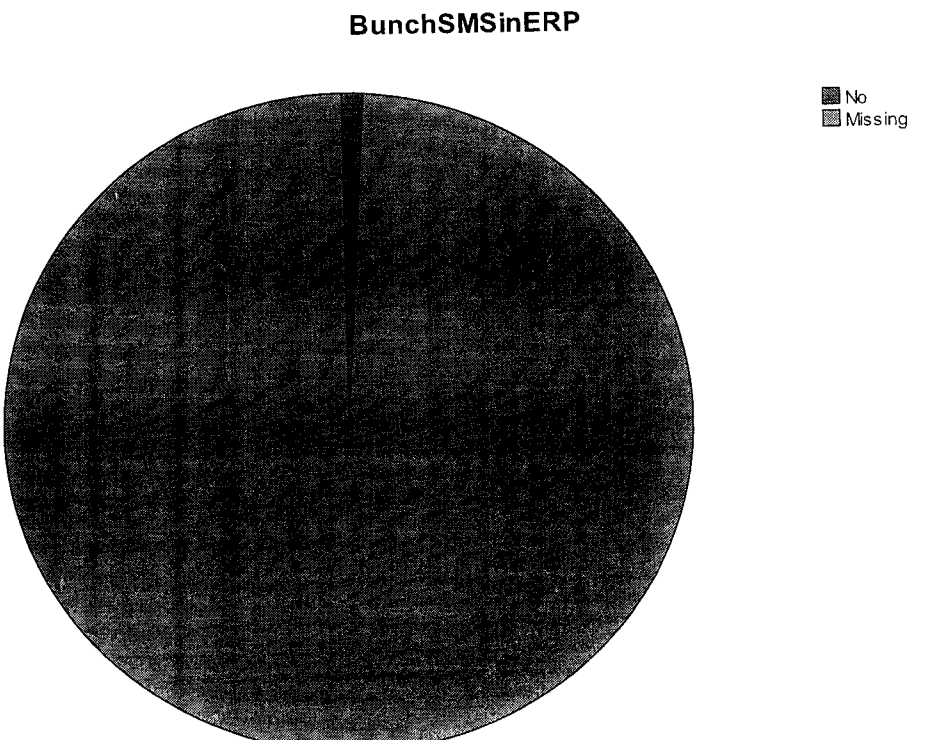


Table 4.21: The following table represents the correlation between Administration Activities and ERP in near Future of the schools

		Administration Activities	ERP in near Future
Administration Activities	Pearson Correlation	1	.540**
	Sig. (2-tailed)		.000
	N	100	100
ERP in near Future	Pearson Correlation	.540**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Interpretation:

From the above table it was found that there are .540 correlations between administration activities and ERP in near Future of the schools. It is positive and moderate correlation between the administration activities and ERP in near Future.

Inference:

Therefore, the administration activities of the schools influence in the ERP in near future of ERP non-users of the schools.

Table 4.22: The following table represents the correlation between ERP in near Future and prefers type of ERP of the ERP users of the schools

		ERP in near Future	Prefer Type of ERP
ERP in near Future	Pearson Correlation	1	.735**
	Sig. (2-tailed)		.000
	N	100	100
Prefer Type of ERP	Pearson Correlation	.735**	1
	Sig. (2-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Interpretation:

From the above table it was found that there are .735 correlations between the ERP in near Future and Prefer type of ERP of the ERP users of the schools. It is positive and strong correlation between ERP in near Future and Prefer type of ERP.

Inference:

Therefore, ERP in near Future strongly influence on the Prefer type of ERP of the ERP users of the schools.

CHAPTER 5

CHAPTER 5

FINDINGS, SUGGESTION AND CONCLUSION

5.1 FINDINGS

- 64% of respondents are male and 36% of respondents are female. Hence, majority of the respondents are male.
- 1% of the respondent are age below 25 years, 54% of the respondents are age between 25 to 35 years, 37 % of the respondents areage between 35 to 45 years, 8% of the respondents age are above 45 years.
- 52% of the respondents are Undergraduates, 38% of the respondents are Postgraduates and 10% of the respondents are PhD.
- 47% of the respondents are principal, 39% of the respondents are technical staff and 14% of the respondents are others.
- 4% of the schools are using ERP system for administration activities, 88% of the schools are using application softwares like MS-Office, Tally etc., and 8% of the schools are recorded manually administration activities. Then most of the schools are using application softwares for administration activities.
- 96% of the schools are recorded administration activities regularly and 4% of the schools are recorded adminisration activities somewhat regularly. Then most of the schools are recorded adminiatration activities regularly.
- 3% of the schools having below 200 students, 28% of the schools having 200 to 500 students, 39% of the schools having 500 to 1000 students, 16% of the schools having 1000 to 1500 students and 46% of the schools having above 1500 students. Hence, the 39% of the schools having 500 to 1000 students.
- 94% of the schools having only one branch, 2% of the schools having two branches and 4% of the schools having three branches. Hence, most of the schools having only one branch.

the schools are having only one branch. Out of 100 schools only 6 schools having more than one branch and there is no centralized system operation in school branches.

- All schools provide updated system database regarding with exams, homework, students and stuff details etc.,
- 2% of the schools having web enabled system database and remaining 98% of the schools are not having web enabled database. Therefore, Most of the schools did not having web enabled database.
- 39% of the respondents accept that the ERP system reduce the human effort and paperwork, 40% of the respondents said that there is no differnce in ERP system and 21% of the respondents said that they don't know about it. Hence, most of the respondents said that ERP system make no differnce and accept the ERP system reduce the human effort and paperwork.
- 41% of the respondents accept the ERP system consumes less time and 59% of the respondents said that they didn't know about it. All the respondents didn't say that the ERP system not consumes less time.
- 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP non-users 95% of the schools said that they provide ERP in the future. Hence, most of the ERP non-users (95%) said that they provide ERP in future.
- 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP non-users 68% of the schools are prefer Web based ERP, 27% of the schools are prefer both LAN based and Web based ERP and 1% of the school didn't prefer the ERP. Therefore, most of the schools prefer Web based ERP (68%) and no one prefer only LAN based ERP.
- Most of the schools expect service,quality, low price and maintainence in the ERP System.
- 4% of the schools are ERP users and 96% of the schools are ERP users. In ERP users 3% of the schools are having LAN based ERP and 1% of the schools are having both LAN and Web based ERP. Hence, most of the ERP

users are having LAN based ERP and no one school having web based ERP.

- 96% of the schools are ERP non-users and 4% of the schools are ERP users. In ERP users 1% of the schools are having the online test, query and notes facilities in the ERP system and 3% of the schools are not having this facilities. Therefore, most of the ERP users not having the online test, query and notes facilities in the ERP system.
- In ERP users 1% of the schools are having SMS facilities in the ERP system and 3% of the schools are not having the SMS facilities in the ERP System. Hence, most of the schools (ERP users) are not having the SMS facilities in the ERP System.
- In ERP users 1% of the schools are having bunch SMS option in the ERP system and 3% of the schools are not having sms option in the ERP system.Then most of the schools those having ERP system are not have bunch SMS option in the ERP system.
- There are .540 correlations between administration activities and ERP in near Future of the schools. It is positive and moderate correlation between the administration activities and ERP in near Future. Therefore, the administration activities of the schools influence in the ERP in near future of ERP non-users of the schools.
- There are .735 correlations between the ERP in near Future and Prefer type of ERP of the ERP users of the schools. It is positive and strong correlation between ERP in near Future and Prefer type of ERP. Therefore, ERP in near Future strongly influence on the Prefer type of ERP of the ERP users of the schools.

5.2 SUGGESION

- The company approach web-based ERP to private schools, because most of the schools are prefer web-based ERP due to cheaper than LAN based and it has more advantage than LAN based.
- Schools are expecting low price, high quality, good service and maintenance from the product of the company.
- Some schools are not able to pay the amount for the ERP on the spot. So, the company understands the school financial situation and collects money from them in installment basis.
- Schools didn't have facilities are online test, notes, bunch sms option in the ERP system then the company able to approach the schools to provide those facilities in their ERP system.

5.2 CONLUSION

- From the research, it was found that most of the schools are using applications software like MS - Office, Tally etc...
- They are not aware about the importance of ERP System.
- Due to this research, they understand the importance of ERP System.
- They are interested to install ERP System in their School.
- Schools are attracted by the SMS System provided in the ERP.
- Schools are interested to install web based ERP due to low price, then company identify the schools and approach the web based ERP.
- The company identifies the schools not having facilities like online test, notes and bunch sms facilities in the ERP System able to approach facilities to the schools.
- Therefore, the Company is able to approach ERP in the schools with good service, quality and maintenance.

CHAPTER 6

CHAPTER 6

APPENDIX

A STUDY ON MARKET POTENTIAL OF ENTERPRISE RESOURCE PLANNING (ERP) SYSTEMS IN PRIVATE SCHOOLS AT CHENNAI

QUESTIONNAIRE

1. Name:

2. Gender: ☐ Male ☐ Female

3. Age(in Years):
   - ☐ Below 25
   - ☐ 25 - 35
   - ☐ 35 - 45
   - ☐ Above 45

4. Educational Qualification:
   - ☐ Below +2
   - ☐ Diploma
   - ☐ UG
   - ☐ PG
   - ☐ PhD
   - ☐ Others

5. Occupation:
   ☐ Correspondent ☐ Principal ☐ Technical Staff ☐ Others

6. How is your management and administrative activities recorded at present?
   - ☐ Using ERP System

7. How often the administration activities are recorded

- ☐ Regularly
- ☐ Somewhat Regularly
- ☐ Sometimes
- ☐ Never

8. What is the strength of your school(no. of students)

- ☐ Below 200
- ☐ 200 - 500
- ☐ 500 - 1000
- ☐ 1000 - 1500
- ☐ Above 1500

9. How many branches (schools) do you have?

☐ 1 ☐ 4

☐ 2 ☐ Above 4

☐ 3

Note: Please skip the Question 10, those are having only one branch

10. In case you have multiple branches, do you have a centralized system to take care of the operations?

☐ Yes ☐ No

11. Do you have a system to provide your students and their parents with updated database regarding exams, schedules, Homework etc.?

☐ Yes ☐ No

11a. if yes: would your system is web - enabled

☐ Yes ☐ No

12. Do you think an ERP system in place of the present system can reduce paperwork and human effort?

- ☐ Yes, to a large extent
- ☐ Not much difference
- ☐ I don't know

13. Do you think ERP system consumes less time?

☐ Yes ☐ No ☐ I don't know

Note: Following Questions (15 – 17) are provided to ERP non - users

14. Would you consider using an ERP solution for your school in the near future

☐ Yes ☐ No

15. What type of ERP system would you prefer

- ☐ LAN Based
- ☐ Web Based
- ☐ Both
- ☐ None

16. What would you expect in the ERP System

- ☐ Service
- ☐ Quality
- ☐ Maintenance
- ☐ Low Price
- ☐ All Above
- ☐ Others, Please Specify _____

21. Please tick the modules exist in your ERP System

- ☐ Admission and follow-ups
- ☐ Student registration
- ☐ Fees management
- ☐ Timetable management
- ☐ Exam & result management
- ☐ Staff payroll management
- ☐ HR activities
- ☐ Transport management
- ☐ Academic planner
- ☐ Front office management
- ☐ Transfer & character certificate generator
- ☐ I-card generator
- ☐ Media management
- ☐ Event & activities management
- ☐ Library activities
- ☐ Hostel & mess management
- ☐ Back office file management
- ☐ Accounts management
- ☐ Alumini
- ☐ Others, Please Specify _____

_____

22. Any Suggestion

_____

CHAPTER 7

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