CHAPTER 1

INTRODUCTION

This chapter highlights the Introduction about the Publishing Industry in India and the organisational complexities in the adoption of ERP. The need for the study, scope of the study, Problem definition, Research objectives, Research methodology and the scheme of work are also explained in this chapter

1.1 INTRODUCTION

Industry is a man-made activity for the benefit of the society through scientific and technological innovations. The Publishing Industry is a cyclical sector which has significant influence in the economic progress and social change. The publishing industry is subdivided into two major aspects as Printing Business and Traditional Print Media. The print media has its business applications based upon the products that directly focusing on customer needs and requirements. It is subcategorized into Books publications, Magazines Publications and Journals and periodicals publications with customization of business functions pursuing the prerequisites of all kinds of consumers on any kind subject. The business pinpointing Printing category concentrates on the production of physical substances as media involved in activities such as signboards for advertisements, bill boards for advertisements and the like.

The influence of economic aspects such as business cycle, technological factors, tastes and preferences of consumers, trend and competitive advancements are presented in both the subdivisions of the Publishing Industry. The drastic changes in these economic aspects may lead to remarkable changes in the publishing industry and the companies following traditional way of performance in their production, marketing and other functional aspects would definitely become the weaker sections of the Publishing industry. In this resilient economy, the members are hassle in their
performance due to over expectations from the customers and competitive forces. The industry is facing hard times in grasping the changes rapidly into its functions and only those companies proactive in nature can able to withstand in the market. The reactants to the market forces are quickly washed out from the industry. The revenue generated by the publishing industry mainly depends upon its advertisements printing. The Neck and neck opportunities for the Publishing industry depend on accepting the technological advancements in the economy. The companies that are coping up with the latest trend of production may show a variety of changes in its aspects and can easily attract the people towards it and change into customers with delightfulness about their performance and product. By getting more customers, the companies can earn more profits and the profitability quotient may also increase further. This will give ultimate result on stakeholders’ benefits.

The publishing industry has to concentrate on two aspects in its business. They are circulation speed and distribution speed. The publication which is having attractive and trendy feature with economic cause can have highest circulation and in that case, the publishers have to speed up the distribution process of that product to make it most available product in the market. The Publishing Industry has to maintain effective control over its forecasting aspects for sales and fix up the sales target based upon the result. The Publishing Industry is now engaged in the thoughts about uplifting the eco-consciousness in the environment. More steps have been initiated by the government to have environmental awareness in the production aspect and product development in publishing industry since this industry is having more direct contact with environmental issues. The companies belonging to government sector are worth noting all the difficulties in popularizing the environmental consciousness in the midst of the industrial progress. Several steps have been taken to prevent and also to eliminate environmental issues in publishing industry. The Web-based contents are earning good name and fame in avoiding the environmental issues of publishing industry. In better-quality facts, the publishing companies changed their views and processes towards online and web resources maintenance. The web based sources creature show a miniature exposure on all the business processes and eliminates other
aspects like manual keeping of records, order maintenance, projection techniques and the like. Information assimilation can be enhanced using web based tools in publishing industry. This leads to a gradual increase in the demand of Web contents. The web based platforms are emphasized more by the companies which lead to the intervention of Enterprise Resource Planning (ERP) into the business. The customized aspects of ERP are gaining welcoming thoughts in the midst of publishing companies to enrich them as globally strong companies. ERP paved a way to the publishing companies to improve their chances of survival.

1.2 INDIAN PUBLISHING INDUSTRY

According to industry body Federation of Indian Chambers and Commerce Industry, the Indian publishing industry, which is worth INR 12,000 crore, is currently growing at a compound annual growth rate of 25 percent. Writers like Chetan Bhagat, whose books ‘Five Point Someone’ and ‘2 States’ have been very successful, and Amish Tripathi, with his 'Shiva trilogy', have helped keep the industry ticking by bringing in an entirely new set of readers, who enjoy a quick and light read. The Indian book publishing industry is very attractive and has a high growth potential, but it is operating in an extremely competitive market, with over 16000 largely small publishers spread across the country. With the Indian economy and the education sector booming, the industry is at a new juncture of growth and competition. FICCI's Secretary General, Dr. A Didar Singh, states that the Indian publishing industry produces over 100,000 titles every year. "There was a time 10 years back, when one used to be happy if one printed 3,000 copies of a book and it sold out. But, today you're looking at books which are routinely crossing 10,000 to 20,000, and in some cases 100,000 or even a million copies in sales," says Gautam Padmanabhan, CEO of

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Westland Ltd, a wholly owned subsidiary of Tata Group's retail arm Trent. He claims his company has made inroads in Bengali and Marathi language content.

With an estimated market of INR 10,000 crores, India ranks third after the US and UK in English language publishing. Currently the sector is witnessing a Compound Annual Growth Rate (CAGR) of 30% the sector presently produces 90,000 new books a year in 24 languages including English. Currently, the Government (NCERT, State Text Book Boards, NBT, and Publishing Division, combined) is the largest publisher in the country. The Government allows 100 percent FDI to publishing houses across the country to make India a publishing hub, by utilizing the vast English-speaking technical manpower. With a view to service the sector, FICCI started with organizing PubliCon from 2011. The program focused on key policy / regulatory issues confronting the publishing industry. The conference also deliberated on trade related issues, National Book Promotion Policy, IPR, Digital publishing, rejuvenation of libraries, export potential of the industry, children’s publications, etc. Several players in the industry have a national presence – the prominent ones being Penguin Books India, Oriental Longman, Rupa Publications, McMillan, S Chand, Navneet and Parragon. Most of these players have established their positions across only a few types and price points as shown in Exhibit 1 below.

Figure 1.1 Types of Books and Book Prices in Indian Publishing Market

(Source: Federation of Indian Chambers of Commerce and Industry)
It is from the words of Laskowski, one can come to know that the Walmart is considered as a great example for using the Life cycle analysis of ERP to note down the present scenario in its many of its business units especially its case in China. Walmart is estimated to have more than 66000 suppliers in almost 70 countries and it is having one lakh SKUs. It is not that simple to green that entire process which is really a complex one. But Walmart has taken that risk and reduced most of its hazardous waste management issues.

![Value split for a Rs. 100 book](image)

**Figure 1.2 Book Value split in Percentage**
(Source: Federation of Indian Chambers of Commerce and Industry)

The Resource and Environmental Profile Analysis (REPA) directly involved in 1990 in the issue raised by the Council for Solid Waste Solutions because of which consumption of grocery bags versus paper bags and their environmental performance are brought into light. As per the opinion of Mary Ann, this analysis about the plastic bags did not create much impact in the society. By the analysis of Xerox, it is shown that the green ERP is always mounting towards a top in 2004, Xerox performed a paper audit for Dow Chemical and it was found that Dow had 16,000 printers producing 480 million pages per year. The result of the audit made the company to get down to 5,500 printers -- reducing printing costs an estimated $20 million to $30 million over five years.
1.3 GROWTH OF THE INDUSTRY

While the international publishing industry has almost peaked, book publishing in India is booming at a compound annual growth rate of 30 per cent. India is the world’s seventh largest book publishing country and there are over 16,000 publishers in India, the huge majority of them small players and family-owned units. The publishing industry in India is defined by a vast set of variables. The publishing industry in India is largely reader driven. India is the world’s third-largest book market and the good news is that the reader base in India is growing. India has always been a multilingual country and with the country set to become a hub of the largest English speaking population, books sales will directly go up. Secondly, the number of writers in India is also increasing, with more and more new authors finding ways to make it to the market. The Indian book publishing industry is very attractive and a high growth potential, but is operating in an extremely competitive market, with over 16,000 largely small publishers spread across the country. With the Indian economy and the education sector booming, the industry is at a new juncture of growth.

In spite of many of the hassles in traditional publishing modes, the emergence of online media is one opportunity India cannot afford to overlook. In fact, Indian e-publishing industry is expected to grow at 35% per annum, offering immense outsourcing opportunity. The e-book industry has grown from $78 million in sales in 2008 to $1.7 billion in 2011 and estimated e-book sales will be $3.55 billion in 2012. The market for e-books is set for a rapid increase in India. Today, publishers are aggressively converting books into e-books to try out the potential of this virgin market.

1.4 INDIAN MARKET FOR PUBLISHING INDUSTRY

The Indian publishing industry is growing at an impressive pace and India is one of the few (if at all any) major markets in the world which is still seeing growth in both print and digital publishing. The value of the Indian publishing industry in 2012 is estimated at USD 2 Billion and ranked third with an overall growth rate of
around 15% as per conservative estimates. A nationwide survey conducted by the National Book Trust of India in 2010 revealed that one-fourth of the youth population, a staggering figure of 83 million, identify themselves as book readers. India also has about 19,000 publishers although out of those only around 12,400 have ISBN’s. It is further estimated that about 90,000 titles are published in India every year which includes books across all genres. The Indian market offers great potential for the European Economic market. India ranks second after China as one of the world’s most attractive investment destinations. India’s potential lies in its excellently trained workforce; it’s very young population and a relatively stable government, along with above-average profit margins for foreign firms. Given its strength in terms of its youth population, India not only has a high potential in the area of education, but also enormous purchasing power. Germany already has an excellent reputation in the fields of education, science and technology. Learning German continues to enjoy great popularity around the country. More than half of the total titles published in India are in Hindi and English, with Hindi constituting about 26%, followed by English at 24%. India ranks third behind the USA and the UK in the publication of English language books.

1.5 ERP REPORT – 2014

Panorama Consulting Solutions is an IT consulting firm specializing in the Enterprise Resource Planning (ERP) market for mid- to large-sized organizations around the world. Independent of affiliation, Panorama facilitates the evaluation and selection of ERP software, manages ERP implementation, and expedites all related organizational change to ensure that each of its clients realize the full business benefits of their ERP systems maintains a global presence with current offices in Denver, Chicago, Boston, San Francisco, Lima and Dubai.\(^3\)

The majority of organizations appear to understand the benefits that can be realized from a new ERP system. The top reasons cited for implementing ERP were to improve business performance (15-percent), to better integrate systems across multiple locations (14-percent), to better serve customers (12-percent) and to ensure reporting and regulatory compliance (11-percent). Only a small percentage of organizations reported that the reasons they implemented ERP software was “to appease the parent company or other key stakeholders” or “because other companies have ERP”. More than three out of four respondents (77-percent) indicated that their companies were implementing or had implemented ERP software at two or more locations. The ERP systems were purchased to replace out-of-date, existing ERP software (43-percent), a non-ERP system or systems (20-percent) or homegrown systems (17-percent). Three-percent of respondents indicated that they had no “true system” and were paper-based prior to the ERP implementation.\(^4\)

Although the majority of respondents self-described as “satisfied” with their ERP software selection, this does not appear to translate into satisfaction with individual components. This is pointing a cloudy definition of “satisfaction” and “success.” Organizations that do not develop a business case and do not measure project results against expected benefits likely have a more difficult time defining success or failure. Working with end-users and stakeholders to define project goals and expected benefits can create more realistic satisfaction and success measures.

“Go-live satisfaction” is another reason that reported satisfaction levels that appear so high compared to reported success rates. As soon as an ERP system goes live, project fatigue diminishes and executives, implementation teams and end-users consider the project “complete.” Organizations must ensure that end-users and

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executives know that results will be measured against key performance indicators and that go-live is just one of many project goals.

![Overall Satisfaction Levels](image)

**Figure 1.4 ERP Satisfaction Levels**

(Source: Panorama Consultancy’s 2014 ERP Report)

The data also indicate that organizations understand the importance of leveraging ERP consultants throughout the entire lifecycle of an ERP implementation. Many respondents brought in consultants during the selection and purchasing phase (39-percent) and an equal amount of respondents brought in consultants during the planning phase (29-percent) and the implementation phase (29-percent). Only three-percent of respondents used consultants post-implementation, which may indicate unfamiliarity with how consultants can help organizations achieve expected benefits.
In terms of specific benefits realized, responses line up with previous years’ findings. As shown above, the top five benefits noted by organizations included availability of information, improved productivity, increased interaction, less duplication of effort and improved data reliability. ERP implementations seemed to have little positive effect on IT costs, operating expenses or lead-time and improved inventory.

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1.6 ERP ADOPTION IN THE INDIAN PUBLISHING INDUSTRY

As like in other industries, ERP is very important in all the aspects of Indian Publishing Industry. ERP is having various functions interlinked together to enable the business run smoothly. Digital publishing in India is an emerging market. Currently the market for e-books is small but growing. A big reason for this is that currently e-readers are still very expensive for most consumers in India which impacts e-book adoption rates. On the positive side publishers feel the digital market will grow substantially in India given the increasing sales of devices which support e-books like smartphones and tablets. Amazon’s Kindle entered the Indian market in August 2012. In July 2012 Penguin India, the largest trade publisher in the country, launched 240-titles as e-book editions. Currently the biggest market for e-books in India is the higher education sector. These practices pushed that envelope to dive much deeper

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into supplier practices like waste control, stockings, etc., These new announcements also expand the demands in different ways. In recent years, the book publishing companies are practicing the “Print On demand” concept enrich more innovativeness in their ERP management. Now they are practicing the “Print On demand” concept. So no stockings are kept elsewhere. The pace towards e-books, e-learning resources, online subscriptions, etc., made the importance of maintain a sound ERP management. Print on demand with digital technology is used as a way of printing items for a fixed cost per copy, regardless of order size. It seems to be higher for per unit cost but comparatively the average cost per unit and set up cost for small units per run are relatively very smaller and the other benefits are reduction of storage cost, material handling cost and no waste of unsold products as the pulping in the old stock may vary in its quality from a newly printed one. This can be done with highest priority given to the adoption of ERP in the organization. The ERP makes all the process of a publishing company coordinated with each other and tries to bring effective results for the company. Oracle, People Soft, SAP and IBM are the prominent ERP service providers in the publishing industry.

1.7 ORGANISATIONAL COMPLEXITY

The publishing companies are championed by variety of new technological innovations and they are in the position of adopting all those things to get competitive advantage. (Lall A 2004) and (Satyan 2004) indicate that firms emphasize appropriate Critical Success Factors (CSFs) for their holistic implementations as their focus shifted to operational and usage rather than deployment issues. (Lall A 2004) suggests that firms facilitate extended ERP system implementation by focusing on CSFs such as planning, project management (breaking the projects into smaller and manageable pieces), change management, training, implementation rollout strategy, alignment between business processes and the ERP system (through minimal customization), detailed documentation, use of a project champion to spearhead the project, a balanced implementation team, and the use of external consultants closely involved with the project at all stages. The top management is focusing only in those matters which are
primarily dealt with strategic decision making and the concentration for departmental usage of the ERP is very limited and so proper training has to be given to the employees not as a whole but by specifically on their departmental implementations.

1.8 NEED FOR THE STUDY

Though the present business world is moving towards technological upgradation, still the business people have fear about their investment in these technologies which reduces the paper works, especially cuts short the time in spending the unproductive works like creating files and recording everything in the files as report, etc. The top management is anxious about the huge investment for ERP and the Middle management is having worries about the applicability and user friendliness of the system and finally the Lower level management having a thought as additional work burden to them. (Caldwell 1998) and (Rajani 1999) indicate that the benefits of fully functional ERP systems are realized 1 to 3 years after implementation. (Caldwell 1998)suggests that firms suffer an initial 3 to 9 month productivity dip after the ERP system “goes live.” This is overcome by redefining jobs, establishing new procedures, and fine-tuning the ERP system. The next stage, which lasts from 6 to 18 months, involves structural changes, process integration, and implementing extensions to the ERP system. The resulting streamlining of operations and effective system usage helps firms achieve quick return on investment (ROI) as well as reap efficiency benefits. The third stage, of 1 to 2 years duration, involves organizational 22 transformations, where the synergies of people, process, and technology results in increased customer satisfaction and competitive advantages to firms. It is obvious that implementing an ERP system is an opportunity for the company to bring out the best practice of successful companies (Sondoss 2008). To find out the reality of implementing the ERP and its usefulness to the companies, the researcher has took this problem of implementing ERP in Publishing Industry and also the ways to sustain it in the Indian Publishing Industry.
1.9 IMPLICATION OF THE PROBLEM

Improving business processes is paramount for businesses to stay competitive in today’s marketplace. Over the last 10 to 15 years, companies have been forced to improve their business processes in order to make the consumers to choose their products in the midst of many competitors’ products. Many companies began the business processes improvement with a continuous improvement model. This model attempts to measure the performance of current system and make improvements accordingly in need of the hour. New technologies are rapidly bringing new capabilities to businesses, thereby raising the competitive bar with improvements in business processes. One of the apparently developing trends is ERP (Enterprise Resource Planning). The ERP is the one which makes the entire organization as one system and all the departments as its subsystems and it integrates people, procedures and data. According to AMR Research, ERP implementations usually take 9 to 12 months for small companies, 12 to 14 months for midsized businesses, and 3 years or more for large, multidivisional organizations. Most researchers have focused on the study of the adoption and implementation phases of the ERP system while the post implementation stage of ERP has been neglected (Shahin Dezdar & Sulaiman Ainin 2011). Lack of research related to this phase of the life cycle of the ERP system is the main motivation for this research. The impact of ERP system differs from one country to another. This research presents the results of an empirical study on the critical issues in post implementation ERP in Publishing Industry in India with responses from 200 companies. Before going for ERP Implementation, all the firms are taking care about their business modeling to make their environment as conducive and creative to adapt the new technology but after implementing it they is not much taking care about the practical difficulties of using the ERP software? This research examined those critical factors clearly and has given an in-depth study about the success of ERP after implementation.
1.10 SCOPE OF THE STUDY

As firms extended their ERP systems, analysis indicates that firms introduce organizational changes in parallel with their technical deployments to achieve successful implementations (Bingi et al 1999; Padmanabhan 1999; Sweat 1999). Bingi et al (1999) conceded the importance of firms using a balanced mix of organizational and technical CSFs for ensuring successful ERP system implementations. Their findings imply that firms focus on CSFs such as top management commitment, planning, alignment (re-engineering firms’ processes with those of the system of ERP), consultants, trained project team, implementation rollout strategy, employee buy-in, communication, cultural changes, data integrity, and training. The effective handling of CSFs confers competitive advantages to firms by enabling them to leverage the information from their ERP systems to streamline their operations, add to profit margins through efficiency gains, and increase customer satisfaction levels. Hence the scope of the study is limited to the eight critical factors that are identified by using intensive secondary data which are all considered as Management commitment, Vendor support, Consultancy services, ERP Excellency, Process Re-engineering, Technological Support, Business performance and Cost control.

1.11 LIMITATIONS OF THE STUDY

i. The study is limited to Indian Publishing Companies using ERP systems for minimum two years.

ii. The study is limited to Managerial perspectives of Enterprise Resource Planning.

1.12 RESEARCH QUESTION

In any ERP systems implementation, integration between business process within the company and across the company is very important. The two most commonly deployed technologies of this type of integration are Application Link and Enabling (ALE) and Electronic Data Interchange (EDI) technologies which make use
of the popular IDoc (Intermediate Document). Organizations today face the twin challenges of globalization and shortened product Life cycle. The organizational units need to operate with a very high level of integration without losing flexibility. ERP systems with an organization-wide view of business processes, business needs of information and flexibility meet these demands admirably. Alexis Leon, in his book entitled “ERP DEMYSTIFIED”, has stated five phases of ERP implementation viz. Pre-evaluation screening phase, Package evaluation phase, Project planning phase, Gap analysis phase and Re-engineering phase. Although these phases may seem very linear and distinct from each other, in reality, the phases are in fact quite fluid throughout an actual implementation.

The companies may go through various methods of ERP implementations – in different business units, different modules or manufacturing locations. Some companies give more importance to operational phases and some concentrate on the sequential up gradations. Before the Stage of realization, everything is in the form of documentation. Only it is materialized after the realization phase, in which the involvement of all the executives working in the organization is considered. The human behavior and their working skills are entirely different from the digital and analogue systems. The problems are with the men and the machines. The entire process design integration is vested with full data loaded into it and the people intended to use the system. Finally, the process will go live with process flow optimization and continuous expansion of business with competitive advantage. The knowledge related to this life cycle of ERP implementation is thought provoking and induced the researcher to think about the post implementation ERP fit in the organizations. The questionnaire contains the factors that are reflected upon the implementation of not in how it is processed but in how it is progressed in the organizations. This descriptive research is aimed to identify whether there is any positive relationship between the critical factors involved in post implementation ERP fit and the organizations performance with the following questions:

1. How successful is the ERP implementation process in the organization?
2. What is the relationship between the organization’s performance and the ERP system?
3. How are the critical factors related to the organization either positively or negatively results after the implementation of ERP?

In order to address these questions the researcher has focused on this study.

1.13 OBJECTIVES OF THE STUDY

1. To identify Conceptual Framework for Technology mapping in ERP for Business Management Indian Publishing Industry to adapt ERP successfully.
2. To identify the extent of Critical Success Factors influencing the percentage of ERP success rate of the organizations.
3. To examine the ERP Performance in the organizations with respect to functional integration of ERP.
4. To explore the influence of Supportive activities provided by the top management and ERP vendors on the percentage of success rate of ERP in the organizations.
5. To analyze the critical success factors identified by the researcher with respect to the total number of employees employed in the organization.
6. To analyze the impact of critical success factors identified by the researcher with respect to the total number of departments in the organization.
7. To study the pre and post ERP implementation performance of the Organizations.
8. To offer suggestions to improve the ERP performance in the Indian Publishing Industry.

1.14 HYPOTHESIS OF THE RESEARCH

1. There is no significant difference between the mean scores of critical success factors identified by the researcher with respect to the percentage of success rate of ERP in the organizations.
2. There is no significant difference between the mean scores of the ERP Performance in the organizations with respect to functional integration of ERP.

3. There is no significant difference among the mean scores of percentage of success rate of ERP in the organizations on the Supportive activities provided by the top management and ERP vendors.

4. There is no significant difference between the mean scores of critical success factors identified by the researcher with respect to the total number of employees employed in the organization.

5. There is no significant difference between the mean scores of critical success factors identified by the researcher with respect to the total number of departments in the organization.

6. There is no significant difference between the mean scores of pre and post ERP implementation performance of the organizations.

1.15 RESEARCH METHODOLOGY

The research methodology is exhibited through Research design, sample, survey instrument and tools used for analysis.

1.15.1 Research Design

The researcher used descriptive research design in this study and analyzed the characteristics of ERP functions without manipulation of the data.

1.15.2 Sample

To test the hypothesis, the survey is conducted in the companies of Book Publishing Industry in India with single criteria of having ERP system implemented at least two years before. The ERP system should be crossed at least two years in the company and still running in the companies with the same objectives. The companies’
details are collected from Publishing Directory available from\textsuperscript{10} totally 254 companies are listed in the directory and a sample size of 200 has been selected using \textit{Stratified Random Sampling method} on the basis of responses from the companies and convenience of the researcher. The entire research is associated with Management point of view and hence each company has been distributed with single questionnaire and it is responded by a Top Management representative.

1.15.3 Survey Instrument

With reference to the literature review and intensive study on ERP Implementation stages, a structured undisguised questionnaire has been developed which comprising three parts in it. First part is conveying information about the organization and the ERP related details. The second one is composed with organizational supportive activities to continue with ERP after implementation and the last part is about the influence of critical factors on the success rate of ERP in the organization. The Pilot study of the questionnaire has been done by taking a sample of 10\% from the sample size of the research (200 respondents) and the questionnaire has been distributed with covering letter and in the presence of the researcher, the respondents are asked to fill the questionnaire. The suggestions about the questionnaire have been received from them and those suggestions are updated in the questionnaire and finalized for further research. The Questionnaire is distributed to 200 publishing companies in India and Stratified Random sampling method is used to collect data. The primary data are collected through Mailed Questionnaire method and through Enumerators and the secondary data is collected from various published resources.

\textsuperscript{10}http://www.publishersglobal.com/directory/india/publishers-in-india/
1.15.4 Period of the study

The Field work for data collection has been carried by the researcher for the period from September 2011 to March 2015.

1.15.5 Reliability and Validity of the Instrument

Validity of an instrument is defined to which any instrument measures what it is intended to measure. The content validity, construct validity and criterion-related validity of the instrument were established. Reliability relates to the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials. Reliability of the instrument in this study was established using Cronbach's α (alpha) as a measure of the reliability of a psychometric instrument. Suppose that we measure a quantity which is a sum of \( K \) components \( X = Y_1 + Y_2 + \cdots + Y_K \). Cronbach's α is defined as

\[
\alpha = \frac{K}{K-1} \left( 1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2} \right)
\]

where \( \sigma_X^2 \) is the variance of the observed total test scores, and \( \sigma_{Y_i}^2 \) is the variance of component \( i \) for the current sample of persons. The result implies as given in the table below.

**Table 1.1 Cronbach’s alpha internal consistency Value Table**

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha \geq 0.9 )</td>
<td>Excellent (High-Stakes testing)</td>
</tr>
<tr>
<td>( 0.7 \leq \alpha &lt; 0.9 )</td>
<td>Good (Low-Stakes testing)</td>
</tr>
<tr>
<td>( 0.6 \leq \alpha &lt; 0.7 )</td>
<td>Acceptable</td>
</tr>
<tr>
<td>( 0.5 \leq \alpha &lt; 0.6 )</td>
<td>Poor</td>
</tr>
<tr>
<td>( \alpha &lt; 0.5 )</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>
1.16 TOOLS USED FOR ANALYSIS

The primary data collected from the Publishing Companies in India are analyzed using SPSS 16 (Statistical Package for Social Sciences 16).

One way ANOVA is applied to find out the difference among the mean scores of identified critical success factors on the percentage of success rate of ERP in the organization. Further Scheffe’s test is applied based on the result.

One way ANOVA is also used to find out the difference among the mean scores of Supportive activities provided by the top management and vendors on the percentage of success rate of ERP in the organization along with Scheffe’s test to know which supportive activity is influencing more the ERP success rate percentage in the organization.

The same tool is employed to find out the difference among Critical success factors on the number of Employees working in the organization and among the CSFs on number of departments present in the organization.

The mean and standard deviation of the critical success factors are found to analyze the highly influencing critical success factor.

Independent t test is applied to find out the significant difference between the mean scores of the ERP Performance in the organizations with respect to functional integration of ERP. Dependent t test is used to test the organization performance during pre and post ERP implementation through nine common factors.

Garret ranking method is used to analyze the factors influencing the ERP implementation in the organization by means of ranking the factors and the same tool is applied to examine the reasons for failure of ERP after implementation and the factors ranked on the basis of its impact on the success rate of ERP in the organization.
A simple percentage analysis has been used to know about the percentage of various responses made by the respondents for other related questions asked in the questionnaire.

1.17 STRUCTURE AND CONTENT OF THE THESIS

The present study, “Technology Mapping in ERP for Business Management in Indian Publishing Industry” has been organized into nine chapters.

The first chapter deals with the Introduction comprising Introduction, Publishing Industry, Significance of the Study, Statement of the Problem, Objectives of the Study, Hypothesis, Research Methodology, Need for the study, Scope of the study, Limitations and Structure and content of the thesis.

The second chapter explains the Review of Literature, Theoretical Background and Concept of ERP. It gives a detailed description of Theories, Concepts, Models and Factors determining ERP fit in an organization after implementation.

The third chapter examines the Contemporary conceptual framework for Technology Mapping in ERP for Business Management in Indian Publishing Industry framed by the researcher.

The fourth chapter analyses the Relationship between Eight Critical Factors in ERP Implementation identified by the Researcher and the percentage of ERP success rate.

The fifth chapter estimates the Relationship between Functional Integration and ERP Performance in the organization.

The sixth chapter comprises the Impact of Supportive Activities Provided by Top Management and ERP Vendors on ERP Success Rate.

The seventh chapter estimates the relationship existing between Critical success factors and the number of employees employed in the organization and
compared separately with number of departments present in the organization. This chapter also includes the Garret Ranking method, used to rank the reasons for the failure of ERP in the organization.

The eighth chapter compares *Pre and Post ERP implementation* in organizational Performance

The ninth chapter includes the Findings, Summary of Results, Discussion and Directions for further research.

The other relevant details about the thesis that are not included in the main part of the study are furnished in the appendices.