CHAPTER 9

FINDINGS, SUMMARY OF RESULTS, DISCUSSIONS AND DIRECTIONS FOR FURTHER STUDIES

9.1 INTRODUCTION

This research highlights the importance of Post implementation Fit of Technology mapping in Publishing Industry. It indicates the way of achieving 100% success rate in the publishing Organizations in a Technology based Business Solution i.e. Enterprise Resource Planning. The cost of Enterprise Resource planning is so high; hence the need of effective use of ERP is mandatory. Most publishers going for ERP with huge expectations, but they fail to capture crucial elements to make it 100% success. This research analyses all the factors influencing ERP success rate and identify a new conceptual Cotemporary Framework which will bring complete ERP fit in the Publishing Industry. This research also highlights the need to have a user-centric focus on implementing a manageable number of complementary Technologies that support appropriate segments of the various key end-to-end business processes.

9.2 FINDINGS

Research finding brings out clear indication of research’s focus towards ERP’s success percentage in the Publishing Industry.

9.2.1 Conceptual framework for technology mapping in ERP for business Management to adapt the ERP successfully in Indian Publishing Industry

This functional framework can enable Publishing Industry to adopt ERP systems in their armory without any big hurdles. This research reveals the importance of Technology Mapping in all the three phases of a Business Process.
i. Management Process
ii. Operational Process
iii. Supportive Process

Many publishers came to early conclusion, that Implementation of ERP system itself fulfills all the requirements of the company. Hence, initially they were not worrying about the huge Investments and have gone aggressively for the ERP system. But this research reveals that Management Commitment is one of the most important factors influencing the success rate of ERP systems. This research advised that “the top management has to play a vital role in the Implementation of ERP system rather than just investing in ERP system.

This Framework illustrates the value of Management commitment in the Management Process. This research thoroughly communicated the functions of Top Management in a Business Process including Governance, Strategic Management and Decision Making of a Publishing organization. All the elements of Management Process have been micro analyzed.

Even though some of Publishing companies going for third party production of books, this research thoroughly discussed the operational functions of a Publishing Industry. The Micro analysis of the Factors influencing in Procurement, Sales and Marketing, Production, Manufacturing, and Purchasing has been done with respect to the Critical Success factors (CSFs) identified in the Research.

ERP Excellence and Business Performance in the Publishing Industry mainly depend on its Operational Process. Hence this Framework focuses all the factors to excel ERP performance in the Organization. Duplication of works has been rectified in this framework. This framework enables to provide best Supply chain Management (SCM) in the publishing Industry and optimized its Inventory. Print on Demand (PoD) methodology is also suggested for the publishers to minimize their cost of Production and Inventory Optimization. This framework also suggests
Centralized Warehouse for the stocking the Materials. Hence this framework attempts to increase Process Integration in the Function Integration of ERP system.

The third part of the framework describes the importance of Proper mapping of Technology in a supportive Process of a Business Process. Finance, Recruitment and Technical processes are thoroughly discussed in this part and the factors influencing supporting process are examined.

As this Research Process revealed that Process Re – Engineering and Technological support are integral part of Critical Success factors of Enterprise Resource Planning, this framework focusses on the above mentioned Critical Factors in the Supportive Process.

Research brought out the importance of People’ integration towards ERP success rate (65% of the organizations require People’s integration in ERP System). Hence new Dimensional HR process has been evaluated in this framework. Micro Analysis of Accounting Process has been done; there by all the important factors of Accounting Process need to be mapped with Technology have been identified. Cloud Computing is also suggested for the publishers since Cloud computing can overcome internal network and server Problems.

Final part of our Framework highlights “How to map Information Technology with Business Process”. Research suggested that “Vendor Support and Consultancy Services” are the key Success factors of Publishing Industry. ERP success rate is depends on “how their bottom layer adapting to the Technology”. Hence Technology should be simple, Crisp and essentially User friendly. This will increase rate of People’s Integration towards its Functional Integration.

Micro level Analysis has been made in an organization to check the Application of this framework which gives Positive Impact and still the process is going on. Hence this research suggests Indian Publishing Industry to adopt this Conceptual framework towards 100% success rate of ERP.
9.2.2 Influence of Critical Success Factors in ERP Success Rate

This research examined the relationships between the Critical Success Factors identified by the Researcher and the percentage of Success rate in the ERP systems. ERP Success rate has been calculated on the perspectives of Financial, Internal Operational, Customer and Continuous Improvement Basis. This Research reveals that only 35.5% of publishers having more than 40% success rate in their organizations. Almost two third of Publishing Industry has less than 40% success Rate.

This research has deeply gone through crucial elements influencing ERP success rate in the Organizations. Through Literature, Eight Critical Factors influencing ERP has been identified and relationship between these factors and ERP success rate has been found.

This Research identified that the Success Rate is doubled when below mentioned Critical Success Factors present in their ERP system. Scheffe’s Test proved that 60-80% of Success rate of ERP in the organizations have more critical success rate than the respondents having below 20%, 20-40%, 40-60%, and above 80% of success rate of ERP in the organizations.

This Research revealed that Indian Publishing Industry are opting Technology for the purpose of Cost Control. Mean and Standard Deviation calculation Test proved that Cost Control is the Most Influencing success Factors in Indian Publishing Industry. Ranking of Critical Success Factors according to Indian Publishing Industry are:
### Table 9.1 Critical Success Factors Ranking

<table>
<thead>
<tr>
<th>Critical Success Factors</th>
<th>Ranking</th>
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<tr>
<td>Cost control</td>
<td>I</td>
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<tr>
<td>Process Re-engineering</td>
<td>II</td>
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<tr>
<td>Business performance</td>
<td>III</td>
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<tr>
<td>ERP Excellency.</td>
<td>IV</td>
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<tr>
<td>Consultancy services</td>
<td>V</td>
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<tr>
<td>Vendor support</td>
<td>VI</td>
</tr>
<tr>
<td>Management commitment</td>
<td>VII</td>
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<tr>
<td>Technological Support</td>
<td>VIII</td>
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#### 9.2.3 ERP Performance in the Publishing Industry with respect to Business Functions Integration of ERP

The results of this research suggest that Inventory Control (34.5%) is the most utilized Module in the Publishing Industry. Centralized Warehouse system is the Key Success in the supply chain Management. Publishing Companies will not require monitoring stock Positions in the Branch level; CWH system will report entire stock position of the organization.

Production Planning Module (28%) is the next functional application of ERP system in the Publishing Industry. The Research reveals that Human Resource System (5%) is the least functional application utilized in the ERP system ie. Publishing Industry limited their Human Resource team to get more Productivity. Hence this research focuses on the importance of Human Resource process in supporting Process of a Business Process. Human Resource Work Design has been framed and illustrates the importance of Human Resource Management in a Technology Mapping in the ERP system.

This research also identifies the top five factors considered while implementing ERP System. Their main focus of Implementing ERP system is Business Growth. Indian Publishing Industry also focuses on Quality assurance,
Competitive Advantage, Cost Reduction and Systematic Approach while implementing ERP system.

This research highlights the difficulties of implementation of ERP system in the Publishing Industry. 84% of Industry faced high financial Difficulty while Implementing ERP system. 80% of Industry faced high Technical Difficulty while Implementing ERP system. 73% of Industry faced Difficulty in Process change while implementing ERP system. Thus Indian Publishing Industry faced tough task in ERP implementation. Hence the expectation of ERP system is been very high.

Function Integration of the organizations is determined by both Process Integration and People Integration. Surprisingly, 130 of 200 Respondents (65%) of organizations felt that organizations are lacking people’s Integration. Hence ERP Performance depends on Process Integration as well as People’s Integration.

This research reveals that there is relationship between ERP Performance and the Functional Integration of ERP System. Also this research suggests that People Integration can be increased through HR work flow described in the Conceptual Frame work, Management Commitment, Supporting activities such as Training and Development, Help desk, etc.... This research illustrates the role of Functional Expert in the Publication Industry and his primary focus will be the process and People Integration in the organization.

9.2.4 Impact of Supportive activities provided by Top Management and ERP Vendor on ERP success rate

This research analysis highlights the importance of the supporting factors provided by the Top Management and ERP Service Providers with respect to ERP success Rate.

This Research analysis resulted that there is significant difference between the ERP Success Rate and the supportive Activities provided by the Top Management and ERP Vendors. Since the F-ratio has significant difference among the mean scores
of supportive activities provided by the top management and the vendors with respect to the percentage of success rate of ERP in the organizations, Scheffe’s test was applied.

Scheffe’s Test resulted that ERP organizations has 60-80% of Success Rate when the supportive activities identified by the Researcher implemented in their Organizations. 80 – 100% of Success rate is achieved by the Publishing Industry when these supportive activities implemented in their ERP. Below 20% success rate achieved ERP has very less Supportive Activities implemented in their organizations.

This research also indicated that publishing Industry is required better Management Decision Making Tools for the ERP success rate in the organization. It indicates the organizations hesitant either to go with Traditional publishing of minimum of 1000 cps rather Print on Demand. EBook Publishing is also emerging; organizations struggle to make a strong Decision.

Hence Conceptual Framework suggested by the Researcher, focuses SICSIC Decision making Process which will enable publishing Industry to give better Management support. SICSIC process suggests by the Researcher analyzes all the factors influencing Decision making Process, such as Information, Time, Equipment, Supplies and Personnel in terms of Feasibility, Realistic, Effectiveness, Consequences and Cost – benefit. Enhance Accountability is one of the core influencing factors of HR Work Design suggested by the Research.

All the above mentioned Supportive Activities provided by the Top Management and ERP Vendor increases the Productivity and ERP performance for the organizations. Hence this research recommended publishers towards supporting Activities to improve their success rate of ERP systems.
9.2.5 Relationship between Critical Success Factors and Company Characteristics

This research also attempts to find out relationship between the Critical Success Factors and the Organizational Characteristics.

This research revealed that there is no significant Difference between the Number of Employees worked in the organization and the ERP Success Rate. F test confirms that there is no significant Difference between the Number of Employees in the organization and the ERP performance.

This research also revealed that there is significant Difference between the Number of Departments in the organization and the ERP Success Rate. F test confirms that there is significant Difference between the Number of Departments in the organization and the ERP performance.

This research analyzed the reasons for ERP failures in the Publishing Industry. Again people integration top the list and Garret Ranking Score for People Integration is 65.92 and 5% of HR Module has been utilized in the Publishing Sector. Hence this research attempts to change HR perspective towards People Integration in ERP system.

Poor System integration comes second in the ranking of ERP failures. Hence the importance of Supportive activities especially the need of a Functional expert in the organization required to overcome Poor System Integration. This table illustrates the rank wise failures of ERP in the Publishing Industry.
### Table 9.2 ERP failure Reasons - Ranking

<table>
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<tr>
<th>Reasons</th>
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<tr>
<td>Poor People Integration</td>
<td>1</td>
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<tr>
<td>Poor System integration</td>
<td>2</td>
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<tr>
<td>Warehousing</td>
<td>3</td>
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<tr>
<td>Unrealistic ERP timeline for ROI</td>
<td>4</td>
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<tr>
<td>More governance issues</td>
<td>5</td>
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<tr>
<td>Non-reconciling multiple data resources</td>
<td>6</td>
</tr>
<tr>
<td>Poor Performance Management</td>
<td>7</td>
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<tr>
<td>Highly resistance to change</td>
<td>8</td>
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<tr>
<td>Improper planning</td>
<td>9</td>
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<tr>
<td>Financial budget issues</td>
<td>10</td>
</tr>
<tr>
<td>Poor employees training</td>
<td>11</td>
</tr>
<tr>
<td>Lack of internal expertise</td>
<td>12</td>
</tr>
<tr>
<td>Lack of top management commitment</td>
<td>13</td>
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Hence this research attempts to overcome all the failure in the Conceptual Framework. Micro-level analysis has been made to all the above mentioned failures and influencing factors of these elements has been identified. These factors included in the Framework to move towards 100% success rate in the ERP System.

### 9.2.6 Pre and Post ERP Implementation – A Comparison

This research analysis reveals the difference between the Pre and Post ERP implementation. This research attempts dramatic changes happened after implementing ERP system.

This research resulted that there is no significance difference between Pre ERP implementation and Post ERP implementation in Publishing Industry. Dependent ‘t’ test clearly indicated that there is no big difference between the Pre and
Post implementation of ERP in the Organization Performance in the Publishing Industry. This only resulted in the 65% of publishing Industry attaining less than 40% of ERP success Rate.

Panorama ERP 2013 report revealed that 66% of Organizations getting less than 50% of benefits by Enterprise Resource Planning. This statement is also justified by the research that there is no difference between the Pre and Post ERP implementations in the organizations.

This research identified that,

i. Even though the objectives of ERP implementation are well defined by the top management, the Publishing Organizations failed to use consultants to achieve its implementation objectives.

ii. Organizations failed to get the value for the Money spending on the Consultancy Services.

iii. Management failed to drive employees to get additional Value from ERP System.

iv. ERP failed to Provide Expertize Knowledge to the Employees.

v. ERP failed to speed up Entire process and reduce the Timeline for completion of My works

vi. ERP failed to provide new methodology and insights from the Previous Engagements.

vii. ERP integrates all the departments in the organization in terms of Process but failed to integrate people.

viii. ERP failed to induce high Sharing of resources in the organizations without problems.

ix. ERP failed to minimize the Cost of Operations.

This research also indicated that Post ERP Implementation doesn’t increase satisfaction level of Organizational Performance.

This research also identified that,
i. 65.5% of Publishers felt that Personnel re-deployment of Organization is either dissatisfied or highly dissatisfied.

ii. 65.5% of Publishers felt that Productivity Improvements of Organization is either dissatisfied or highly dissatisfied.

iii. 55% of Publishers felt that improvement in Order – Management Cycle time is either dissatisfied or highly dissatisfied.

iv. 58.5% of Publishers felt that financial cycle in the ERP system is either dissatisfied or highly dissatisfied.

v. 73% of Publishers felt that IT cost Reduction in ERP system is either dissatisfied or highly dissatisfied.

vi. 60.5% of Publishers felt that Procurement cost Reduction by using ERP system is either dissatisfied or highly dissatisfied.

vii. 57% of Publishers felt that Reduction in Logistics Cost by using ERP system is either dissatisfied or highly dissatisfied.

viii. 65.5% of Publishers felt that Reduction in Hardware and Software maintenance by using ERP system is either dissatisfied or highly dissatisfied.

ix. 77.5% Publishers felt that Improvements in on time delivery by using ERP system is either dissatisfied or highly dissatisfied.

x. 24.5% of Publishers felt that Reduction in Inventory by using ERP system is either dissatisfied or highly dissatisfied.

9.3 SUMMARY OF RESULTS

This research answered all the research questions through suitable research methods and concluded that

i. There is 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.
ii. There is significant difference between the mean scores of the ERP Performance in the organizations with respect to functional integration of ERP.

iii. There is 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 the vendors.

iv. 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.

v. There is 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.

vi. There is significant difference between the mean scores of pre and post ERP implementation performance of the organizations.

9.4 DISCUSSIONS

i. By analyzing research results, Post ERP implementation doesn’t make any significant Difference in the performance of organizations. Hence the Change in the system is required. This research identified functional Framework that enables to fulfill the requirements of publishing Industry.

ii. This Framework has been tested in a Small Scale Publishing Industry which yielded Positive Impact. Also this research suggests that ERP success rate doesn’t depend on the Number of Employees and Number of Departments in the Organizations, this Framework can utilized in any organization irrespective of its size.

iii. This Framework can be utilized as a Plug in Device for the existing ERP systems in the Publishing Industry. Since, the factors influencing management Process, Operational Process and
supportive process have been identified, Organizations can utilize the missing parameters of their ERP system.

9.5 **DIRECTIONS FOR FURTHER STUDY**

i. This research focused on the Print Media Book Publishing. E Book Publishing is an emerging segment in the publishing Industry hence further research can be done on E Book Publishing.

ii. This research Framework can be separately tested in all the three processes of a Business Process. I.e. separate test can be done on Management Process, Operational Process and Supportive Process.

iii. This research Framework can be tested on other similar Industrial Segments like Apparel Industries, Telecom, Pharma Industries, Food and Beverage Industries etc....

iv. Critical Success Factors identified in this research brought 60- 80% of success rate in the ERP system; hence Further research can be done on identifying Critical Success factors yielding 80 -100% success rate in the ERP system

v. Globally Cloud Computing is an emerging Information Technology. Hence further research can be done to map this Framework with Cloud Computing.

vi. This research focused only on Indian Publishing Market. Further Research can be done on Global Publishing Market.

vii. This research focused on Managerial Perspectives of the Organization. Hence Further Research can be done on Employee perspectives of the Organization.

viii. This research is based on the functional Concepts of Business Solution. Hence further research can be done on suitable software to implement these functions in the Business Solution.

ix. This research has further scope of Functional expertise perspective Research.
x. Further Research can be done on adoptability of this framework in the publishing Industry.

9.6 CONCLUSION

This research based on the complete study of “What is an organization expecting from ERP system and what they have achieved after two years of Implementation of ERP system”. Since there is no big difference in Pre and Post ERP implementation, this research attempts to find out change in approach to achieve expected benefits from the Technology. Hence this Research derived a Framework from the Critical Success Factors, Expectation Vs Achievement, Pre and Post Implementation Functions of an Organization, Reasons for Failure and Micro level Analysis of Entire Factors influencing a Business Process. This research strongly recommended that this Conceptual Framework might fulfill the expectations of the Publishers and ERP vendors towards 100% success rate from their ERP systems.