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Abstract

Purpose: The purpose of this paper was to describe the digital transformation journey in an IT services company. The study aimed to examine the impact of project management styles on the success of the cloud-based ERP implementation in the company.
Methodology: This study was conducted using a qualitative case study method to analyze the project management styles and their influence on the success of the digital transformation of the company.
Findings: The study discovered that the "visionary" and "affiliative" leadership styles are the key factors that affect the digital transformation of a company. The findings also highlighted the importance of the situational leadership style in the digital transformation journey.
Unique contribution to theory, practice and policy: The study concluded by suggesting a management competency framework that leadership team could further develop to successfully drive the digital transformation of the company. The study contributed to the literature by elaborating on a solid characterization of digital transformation journey. The study also offered useful insights to practitioners on how to execute effective and sustainable strategies for digital transformation.
Key words: *Project Management, Digital transformation, ERP Implementation, Leadership, Project Management Methodology.*
Jel: M10, M12, M14

Introduction

Digital transformation has disrupted whole sectors such as advertising, telecommunications, information technology and automotive in the past decade[1]. This digital transformation can be seen as a significant shift in organization brought on by digital technologies[2]. The transformation goes beyond simply digitizing resources, and may include the transformation of services, processes, means of communication or complete business models[3]. Digital transformation is the use of technology to radically improve the performance or reach of an enterprise[4]. It is an innovative approach to interact with business customers as well as employees. Successful ERP implementation is actually an approach to drive towards digital transformation.

Digital transformation is a broad term that covers multiple aspects of changing technologies. In fact, technologies such as social media, mobile, analytics and cloud are truly transforming the way information and products are consumed. Digital transformation seeks to bring together social media, mobile, cloud and big data to transform how a business works, both for mature as well as less mature businesses. According to Deloitte Consulting 2018 Digital Business report[5], "maturing digital businesses are focused on integrating digital technologies, such as social, mobile, analytics and cloud, in the service of transforming how their businesses work. Less-mature digital businesses are focused on solving discrete business problems with individual digital technologies".

Enterprise resource planning (ERP) systems improve the business process management and help the organization to reduce the costs, integrate all the departments and functions[6], and improve the efficiency[7]. The failure rate of ERP implementation in the organization ranges from 40% to 70% or higher[8]. The research studies have shown many key critical factors contributing to the successful implementation of the ERP system[9]. Leadership has constantly been identified as the most important factor responsible for successful implementation of ERP in an organization[10]. The research studies has also indicated how leadership fosters the ideal organizational culture needed to execute ERP systems successfully[11]. However, a comprehensive literature review of peer-reviewed articles and other relevant

[1] Karimi, J., and Walter, Z. 2015. "The Role of Dynamic Capabilities in Responding to Digital Disruption: A Factor Based Study of the Newspaper Industry," Journal of Management Information Systems (32:1), pp. 39-81.
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[11] Ke, W. and Wei, K.K. (2008) 'Organizational culture and leadership in ERP implementation', Decision Support Systems, Vol. 45, No. 1, pp.208–218.

publications in several search database could not find any case study that evaluated project management styles and its impact on digital transformation in an IT service industry.

The aim of this paper was to fill this void and evaluate the digital transformation journey in an IT services company with an emphasis on the effect of project management styles on the company's cloud-based implementation of ERP system. The study adopted a case study research design in which qualitative technique was used to study the phenomenon in its real-life context[12] enabling study to capture practical knowledge and gain new insight[13]. In this context, the paper provided a brief background of the company and then outlined the process and activities involved in the cloud-based ERP implementation. Secondly, the management and leadership skills required for the success of an ERP implementation was discussed. Next, an analysis was carried out to examine how the digital transformation aspect of ERP implementation was impacted by the project management styles. Finally, an appropriate conclusion was made and key implications was discussed after analysing the case organization.

Case Study: Octaware Technologies

Octaware Technologies[14] is a software development and enterprise solutions firm with two software delivery centers in India located in SEEPZ-SEZ, Mumbai. The company has been serving global customers since 2005 from its delivery centres that are run by hands-on Vice Presidents (VP) who report to the Chief Executive Officer (CEO) of the company. The growth in the company's business led to the establishment of its subsidiaries[15] in the USA, Singapore, UAE, Qatar, and Saudi Arabia by 2015. As a result, the company's employees and customers were now spread across eight countries[16]. As the business grew, the company started experiencing challenges on multiple fronts - sales team interactions, procurement, and consolidation in financial statements, global staff bench strength, and optimal management of intra-company cash flow. These challenges made the company realize the need for implementing an effective ERP system. Accordingly, an executive steering committee (ESC) was established comprising the chief financial officer (CFO), vice president of human resources and vice president of engineering to help implement the ERP system and effectively support the business growth strategy.

The success of ERP implementation at Octaware was critical to the success and stable growth of the company. With this overarching background, the high level objectives for implementing the ERP system were to streamline the current human resources, performance appraisal management and business processes; to transform customer experience and engagement with digitized operation; and to integrate a global taxation platform to manage complexities in the regional tax and regulatory systems. Also, the motive behind ERP system implementation was to deploy asset management, general ledger, and account payable modules on schedule and within budget, and to facilitate seamless consolidation of financial report of all subsidiaries.

[12] Yin, R. K. 2014. Case Study Research: Design and Methods. Thousand Oaks, California: SAGE Publications
[13] Benbasat, I., Goldstein, D. K., and Mead, M. 1987. "The Case Research Strategy in Studies of Information Systems," MIS Quarterly (11:3), pp. 369-386
[14] Octaware Technologies Limited. The Bridge To Productivity. 2020. http://www.octaware.com
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After a co-ordinated planning and budgeting exercise, the ESC proposed three ERP options to choose from - Microsoft Dynamics, SAP, and Oracle, also guided by inputs from individual business functions. Based on Cost-Benefit analysis, the ESC team selected the Microsoft Dynamics AX 2016 to manage the financial, accounting, human resources, taxation, and payroll functions. The next logical step in the digital transformation strategy is to carefully choose the project head for ERP implementation.

Should the Project Head for ERP Implementation, primarily, be a Leader or Manager?

The initial essential task for the ESC team was to appoint the project head to lead the ERP implementation. The challenge faced by ESC was to determine which skill is more important for the project head: project management skills or project leadership skills? While the project management skill is primarily about monitoring, controlling, and problem-solving[17], leadership skill is focused on setting up a direction, building strategies, and aligning tasks and activities[18]. Typically, the understanding is that the management follows a goal through defined activities and paths, whereas leadership defines the activities/ paths to reach the goal.

Success of the project is not only dependent on following defined technical or functional tasks, but also requires leadership to envision future, inspire, motivate and empower people to execute the project successfully. Hence, it is important to have both the qualities of manager and leader for successful ERP implementation. A manager ensures output and results including financial metrics to key stakeholders, whereas a leader facilitates innovation in the company needed for business growth. A fine balance of both the skills is needed.

ERP implementation in line with process theory

A process theory with clearly defined phases for successful ERP implementation is found in the literature[19]. Accordingly, the ERP project at Octaware was implemented in several clearly defined phases. The initial phase is initiation phase which involves the project chartering, decision-making issues, and financial approval. The next phase is project implementation phase, where system definition, gap analysis, software customization, data migration, testing, and system deployment is performed. The end-user training is conducted before signing off the project completion as illustrated in Figure 1. The detail ERP implementation plan with project timeline is shown in Table 1.

Figure 1: ERP Implementation plan

[17] Shariff, S., Johan, Z. and Jamil, N. (2013). Assessment of Project Management Skills and Learning Outcomes in Students' Projects. Procedia - Social and Behavioral Sciences, 90, pp.745-754.
[18] Fairholm, M. R. (2004) 'A new sciences outline for leadership development'. Leadership and Organizational Development Journal, 25(4), 369-383.
[19] Markus, M. L., Axline, S., Petrie, D., Tanis, C. (2000) Learning from adopters' experiences with ERP: problems encountered and success achieved. Journal of Information Technology, 15(4), pp.245–265.

Table 1: ERP Implementation schedule

Task	*Days*	*Begin Date*	*End Date*	*Owner*
Phase 1: Project Kick off	7	12th Sept 16	20th Sept 16	ESC
Phase 2: System Definition	60	21st Sept 16	25th Nov 16	IT
Phase 3: GAP Analysis and Environment Development	30	30th Nov 16	5th Jan 17	Analyst/Dev
Phase 4: Customization	45	10th Jan 17	5th March 17	Dev
Phase 5: Training	15	10th March 17	20th April 17	Analyst
Phase 6: Data Migration	30	1st May 17	15th June 17	Dev
Phase 7: System Review	15	16th June 17	4th July 17	IT
Phase 8: Go Live	10	10th July 17	20th July 17	ESC

The implementation of cloud hosted MS Dynamics AX 2016 was at the centre of Octaware's digital transformation as it transformed the way the company carried out business. Cloud-enabled ERP provided an effective framework for adding new business capabilities, such as, human resources management interface on mobile and customer relationship management through social channels while also leveraging emerging technologies such as artificial intelligence and machine learning.

Phase wise leadership dimensions applicable during ERP implementation

The literature review reveals a framework that proposed eight characteristics of the leadership style which influences ERP implementation[20]: transform vision, active advocacy, and participation in learning session, citizenship behaviour, power sharing behaviour, sharing and inquisitive behaviour, setting up a learning structure, and dispensing appropriate rewards. Table 2 describes the events during the ERP implementation life cycle and leadership dimensions observed.

[20] Ke, W. and Wei, K.K. (2008). right there

Table 2: ERP Implementation phases and applied management style dimensions

Project Phases	*Events*	*Dimensions of Leadership*
Phase 1: Project Kick off	Formation of the executive steering committee leveraging strengths of right people required for the project.	Transform vision
	Kick-off meeting by the CEO communicating the company's objectives for the ERP implementation	Active Advocacy
	The project charter with stakeholder matrix, roles and responsibilities of team and project plan	Citizenship Behaviour
Phase 2: System Definition	Blueprint of MS Dynamics AX implementation and change request process implementation	Sharing behaviour
Phase 3: GAP Analysis & Environment Development	Architecture design and physical implementation of the system and with integrated project management. ESC, Dev and Analyst team working together during this phase	Sharing and inquisitive behaviour
Phase 4: Customization	The customization of the ERP package in co-operation with various functional departments. ESC taking decision to incorporate the changes in the system.	Power sharing behaviour
Phase 5: Training	End-user training to learn the implemented modules and operate the ERP system post deployment.	Setting up a learning structure
Phase 6: Data Migration	Existing data migration in collaboration with functional departments.	Citizenship behaviour
Phase 7: System Review	Final preparation before going live. ESC was involved in Hardware/Software integration, reconciliation, live database initialization	Participation in learning sessions
Phase 8: Go Live	Deployment of ERP system in production and announcement of bonus to the implementation team	Dispensing appropriate rewards

The longitudinal case study approach was used to look at a company's leadership style during the period when the ERP system was implemented. The reason for a qualitative analysis was to provide a better understanding of the effect of leadership styles on the implementation process of the ERP. Data collection occurred primarily through semi-structured interviews conducted over a 10-month period, starting in September 2016 and ending in July 2017. There were a total of four interviews for a total of 14 hours, including four people.

Analysis of project management styles in ERP implementation

The case study narrative was analysed using leadership dimensions from Table 2. The study discussed in this paper presented some important results for ERP Implementation system researchers and practitioners. From a theoretical perspective, this case study explored framework developed by Ke and Wei that used a real-world case study to demonstrate the effect of management styles on ERP performance. From a practitioner viewpoint, challenges in leadership behaviour was observed during ERP implementation.

First, CEO demonstrated the transformational leadership. The executive steering committee was established by the CEO with the objective to leverage strengths of multiple individuals and better understand aspects such as the need of customer social channel for digital disruption. However, challenges such as time constraints from C-level officials as well as diverse priorities and interests across departments and individuals were encountered. The CEO worked on communication strategies to address these challenges and set the company level objectives for the ERP implementation as well as set the aligned agenda for each department to support the transformational vision. As a result, the executives in ESC started working closely with their team members and key business heads. They assisted and guided the ERP implementation team to remove any barriers, by understanding any emerging problems and actively sharing their knowledge. In particular, enhancing the customer experience by integrating social media elements in customer relationship module was a key win. The culture of risk tolerance was demonstrated with the CEO supporting the ERP implementation project.

Second, the leaders in ESC team played the 'coach' role to the implementation team. While evaluating the MS Dynamics AX 2016 during the system definition phase, the ERP analyst and development team observed that there were gaps in the product. For one, it was not ready for differences in business taxation between countries such as between UAE and India. Secondly, it did not provide ready option to integrate mobility interface with the human resource module of ERP system. The project team communicated the need of product training to ESC and showed keen interest in learning and developing the needed skill sets. Support and collaboration to and from the ESC team during steering committee meetings was aided by usage of centralized knowledge repository and communication system. The involvement of senior executives in ESC showed the culture of participative decision making and power sharing.

Third, the project head demonstrated 'Servant-leadership' qualities in his management style to achieve the objective of digital transformation. To motivate the team, the ERP project head organized the relevant product training as well as opportunities to learn other ERP packages such as SAP and Oracle by way of formal training and group learning based workshop. The project head focused on intrinsic motivation. The integrated project management tool used for internal communication, in the background of, the learning and development culture in the company contributed significantly to the success of the various phases of ERP implementation.

The leadership behavior framework[21] on how leadership dimensions foster the desired management skills needed for successful implementation of ERP system in digital era was clearly seen at Octaware. During the ERP implementation project at Octaware, three leadership styles[22]– Visionary, affiliative, and coaching were observed. With the company's objective to implement ERP being strategy growth and digital transformation, the aforementioned leadership styles were demonstrated by acts of motivating and inspiring the team while simultaneously supporting the ERP project with team's professional development plan.

[21] Ke, W. and Wei, K.K. (2008). right there
[22] Goleman D, Boyatzis R, McKee A (2004) Primal leadership: learning to lead with emotional intelligence, Boston, Mass. Harvard Business School

Conclusion

At its core, ERP implementation drives organizational change and hence, how the change is managed is a pivotal determinant of the project's ultimate success. Reflecting on the various phases of the ERP implementation at Octaware, one observes, as the project progressed, the underlying knowledge, technology and business also changed. Hence, the management approach should evolve with the situation and hence, situational leadership is appropriate for the implementation of the ERP project. The Situational Leadership model[23] suggests that successful managers should adapt their management styles to the maturity of the people they are leading and the specific task. As per this theory, managers should adjust the task emphasis and focus on people relationship as relevant to the desired results.

Recommendation

This paper recommends that Octaware management adopts the situational leadership model[24] in future ERP implementation projects. The model proposes four areas of situational leadership styles that may be adopted, as appropriate, for the ERP project stages. The four are: telling, selling, participating and delegating.

Telling is the initial or basic level of leadership style in the situational leadership. During the system design and analysis stages, where the existing business process has to be changed, a directing approach will be more appropriate to recommend newly designed workflows aimed at process streamlining. *Selling* addresses the follower who, with an increased commitment, has gained some competence. At this point, shift the management style to coaching during customization phase of the project. This phase requires communicating not only what is to be done but also explanation on why it's to be done this way. This style will build stronger confidence of all stakeholders in the final solution. *Participating* is a phase in which the leader tries to establish relationships with others on the team. Brainstorming the data migration strategies in the group and collaborative end-user training programs will represent the consulting approach of leadership during training, data migration and system review phases of the project. Finally, *Delegating* represents the leader who transfers most of the responsibilities for a specific project on to various team members. During Go-Live and support phases of the project, delegating style would be more relevant. The project leads and managers will be made owners of production deployment and on-going support.

It is also recommended to develop the management competency framework in the organization to promote and develop Octaware's leadership. The competency framework sets the organizational benchmark to align managers and leaders to relevant qualities. It will be used to identify, map and assess the leaders relative to the company's strategic objectives. The competency framework will also help in hiring and building the new management team in the company.

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[24] Quoted here

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