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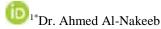
Leading Technological Change – Case Study of Emirates Airlines

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Abstract

Purpose: Emirates Airlines is one of the leading airlines with over 100 international destinations. The airline sector is continually evolving, bringing both difficulties and possibilities. Emirates Airlines has reacted to these changes by effecting an organizational change plan. Implementing a Resource Management System (RMS) in the line maintenance department is the primary subject of this study since it was the main change in the Emirates. Based on specified criteria and flight updates, the RMS software program produces jobs for technicians and engineers. Therefore the study aims to evaluate how the organization handles the change process after introducing new technological applications in the emirates airlines.

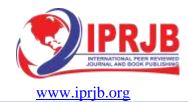
Methodology: This study employs various qualitative research techniques, including interviews.

Findings: The study reveals that critical leadership traits for implementing change include self-awareness, self-regulation, empathy, self-motivation, and social skills. Embracing change enables organizations to enhance their services and provide a distinct competitive edge compared to resistance, which can render the firm irrelevant. Resistance to change mainly occurs due to inadequate information, poor comprehension, and varying visions (Elgohary & Abdelazyz, 2020).

Unique Contribution to Theory, Practice and Policy: The study was anchored on change model. The study recommends that the RMS should benefits the department by improving labor utilization, lowering maintenance costs, and raising customer satisfaction.

Keywords: Change Process, Technological Applications, Emirates Airlines

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INTRODUCTION

Emirates Airlines is an airline company that flies to more than 100 destinations worldwide with both passenger and cargo flights. Emirates Headquarters is in Dubai, United Arab Emirates. Due to the recovery from the pandemic, the country is expecting a lot of travellers and shipments. With Expo 2020, many visitors are expected to fly through Emirates, and currently employments are in high demand.

With the cooperation of stakeholders and employers, Emirates achieved remarkable success. Installing communication gadgets and audio systems to improve comfort and convince clients are some of the innovations done by the company to boost their product offerings. Emirates already established geographical links that offer a lot of room for expansion. Using labour resources from several countries gives the company more negotiation power over the cost of its human resources (Patricia, 2019). The Middle East's rapidly rising economy provides an ideal setting for the Emirates to expand. The company can supply varied hospitality packages that match the needs of a particular route enhanced by its multicultural and diverse personnel resources. There is a need for change across the world for success. Therefore, an organizational change strategy was employed by Emirates Airlines. Due to the ever-changing market, which presents distinct difficulties and possibilities, Emirates must procure these changes. However, management plays a crucial role in the organization's adoption and evaluation of changes. It entails a succession of behaviours such as significant planning, a shift should be viewed as a process rather than a conclusion. Human resources and creativity are usually where most of the organization's change occurs.

On the other hand, the company's competitiveness in the market is threatened by a fast-changing analysis of the industry that imitates the company's methods. Emirates is still one of the most recognizable brands in the globe. On the other hand, the corporation will gain from Dubai's growth as a regional tourist destination.

Emirates is a worldwide corporation with different departments such as catering services, engineering, information technology, retail, cargo, etc. Line Maintenance and Aircraft Cabin Maintenance (ACM) is part of the Emirates Engineering department. The project's focal point is to study the new technological change of the Resource Management System (RMS) in the Line Maintenance department. RMS is a programmed system available as software downloaded into technicians and engineers' tablets, smartphones, and desktops. Moreover, it automatically generates tasks based on predefined rules and dynamic flight movement updates, and real-time management of tasks to use the resources in an optimized way. The software purpose to monitor the flight locations, arrival and departure times, and allocate resources based on their scheduled shifts to have a better workforce utilization.

The report aims to assess the change of introducing the new technology software (RMS) in the Line Maintenance department.

METHODOLOGY

Our study relied on a qualitative research study involving interviews and analysis to understand how Emirates, specifically the Manager of Line Maintenance, managed their change process. A face-to-face interview was conducted by our Colleague Nasim as she is working with Emirates



Airlines, with two different employees: A manager and an Engineer in the line maintenance department. Details of the interviewees are shown below in Table 1, and the interview questions are listed in Appendix 1.

Table 1: Interviewees Details

Name	Position	Years of Experience
Arun Menezes	Manager Line Maintenance	27 years
Noushad Panayangat	Engineering Maintenance Planning Officer and RMS Expert	17 years

Company's Reason for Change

The company continues to invest in developing the skills of its resources to ensure that the company supports an elevated level of professionalism in service delivery as part of improving the quality of the services and developing a unique competitive advantage in providing high-quality services in the market (Robert, 2011).

When it comes to procuring improvements, Emirates focus on two major areas: organizational structure, which deals with human capital design division, and resource management. The managing resource oversees ensuring that the resource base is expanded and managing changes. These adjustments are made in two ways: transformative and gradual. Most businesses have their plan, but Emirates is unique, which is one of the reasons for its success.

Emirates' top management's new scope was to facilitate the department's use of technology to accommodate evolving technological advancements to ease the operational workload. As a result, the Line Maintenance department has undergone proactive adjustments to better utilize the resources and shelter the organizations' new strategy to digitalize operations.

Another critical cause for change, according to Mr. Arun, is to utilize the resources betters that it involves the airline's internal capacity generation. This category also includes maintenance cost reduction. To minimize excessive overtime payments, an aircraft firm must optimize its maintenance crew competently during direct working hours and ensure that tasks are completed within an acceptable duration. Furthermore, the company is likely to believe that change management is a necessary skill that every employee should pursue. As a result of competency, the organization's output soars while personal and employee job happiness improves. Change management also aims to communicate the organization's shifting value offer to remain appealing to aviation industry stakeholders. It is critical for the firm to update its business tactics to attract potential customers and boost profitability.

Furthermore, utilizing the workforce effectively will result in departing the aircraft free of defects and thus reduce the technical delays, leading to passenger satisfaction.

Change Model

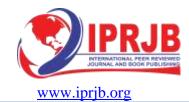
In the pursuit of implementing modern technology (RMS) in Emirates Airlines, the line managers performed several essential activities and tactics for change to be accepted and adopted. Based on



the interview with Mr. Arun, the company's senior leaders ensured that the employees understood the need for change, particularly the adoption of new technology and its benefits to the employees' work. After analyzing the interview, we determined the change model containing the following processes:

- *Make the employees aware of the need to change*, which mainly involves introducing the needed change and making the staff aware that certain changes are to be implemented. For instance, the industry initially relied on historical records and real-time route knowledge, but adopting big data allows them to use current route knowledge (Dou, 2020). Mr. Arun's team realized this and acted by making employees aware.
- *Communicate change* using different communication tools or measures for the staff to understand the needed changes and realize the benefits these changes can offer. In doing so, Line management performed talk shows, installed posters, and used mobile technology in different company spaces for the staff to become more aware of the company's shift to new and digital technology. The change process becomes effective if junior employees are equally involved as the senior leaders (Kozioł-Nadolna, 2020).
- *Open communication lines or develop a feedback system* to determine the employees' views, opinions, and perspectives about the change to be imposed. After communicating change using the different communication tools, the managers in the company were able to receive different inquiries about the change to be deployed from their employees. Indeed, the social skills of leaders are instrumental because the people involved come from diverse backgrounds, and these skills and persuasiveness can build rapport and relationships or networks (Hao & Yazdanifard, 2015).
- *Train employees and tap on early adopters to spread change* in the company. Mr. Arun stated that tapping on the early adopters (young people) who are more tech-savvy to curb resistance. These employees can easily understand how to operate the new digital technology. With their help, more employees will know and learn how to operate the new digital technology. Dealing with resistance includes creating a personal rapport with the targeted population (Alsher, 2016). It also includes enlightening them on why change is vital (Alhezzani, 2020).
- *Show active leadership and support from the top-line management.* Mr. Arun expressed that being an active participant in the change process is vital in adapting to the change effectively. Thus, self-awareness, self-regulation, self-motivation, empathy, and social skills are relevant leadership qualities to lead change (Issah, 2016).

The change model of the company in this case study has certain similarities with Kotter's (2014) dual operating system, which is composed of eight accelerators, namely: "create a sense of urgency regarding opportunities, build a guiding coalition, formulate a strategic vision and change initiative, communicate the vision, accelerate movement toward achieving the opportunity, celebrate short-term wins, continue gaining insights from experience, and institutionalize the changes into the culture" (p. 27). The company showed a sense of urgency to implement change through awareness and communicating the needed change to understand the need to change and the benefits that the new digital technology can offer. The movement towards change is slow-paced, but active leadership, training, and support are implemented.



Leaders of Change and Characteristics

During the interview with Mr. Arun, the Manager of line maintenance, he mentioned that he worked as a project owner for the change. Also, he encouraged employee involvement by involving the shift managers, technician coordinators, and early change adaptors to help him lead the change with the support of the top management. Supporting that, Kozioł-Nadolna (2020, p. 3) stated that while senior leaders are the most proper persons to lead change, the process is only effective if junior employees are equally involved.

In addition, Mr. Arun stated that the essential skills in leading a successful change are social skills like effective and constant communication, foresight, forward-thinking, managing conflicts, and working as a team from pre-change, during, and post-change process. According to Hao and Yazdanifard (2015, p. 3), social skills are instrumental because the change involves people from diverse backgrounds, boosting the leader's teamwork, communication, persuasion, relationship, network building, and establishing rapport.

Also, Mr. Arun stated that he showed empathy and understanding of the staff from diverse backgrounds and ages adopting the change because it was a significant change in the maintenance department moving from paper-based allocation to digital allocation, and more of the staff was not digital savvy or friendly. He would meet with the staff concerned about the change and listen openly and assure them of the benefits of the change, and it is normal to feel this way to reduce their fears or concern. Hao and Yazdanifard (2015, p. 3) also stated empathy is essential because it allows a leader to comprehend the emotional makeup of their followers and address multicultural sensitivity.

Mr. Noushad, Engineering Maintenance Planning Officer and RMS Expert stated that the management was incredibly supportive during the change and effectively managed the difficulties they faced while implementing modern technology. It was a helpful tool that helped them optimize resources. The RMS was communicated effectively through emails, demos and training, and team meetings. According to Kirrane et al., (2016), the support from management on a daily basis assist employee in managing their work, with visible positive effects for organizational results like motivation, well-being and employee involvement. These effects continue in the context of organizational change, as the supportive relations lead to a positive employee mindset to the change, leading employees to continue effectively with the change tasks. Check the citation and the reference as well for this part.

Mr. Arun said it was vital to lead the change by motivating the employees and actively communicating and implementing the new technology. As an implementer and motivator, he participated personally by using the new tool. It will be easy to implement and adapt when the staff sees the management involved in the change. Also, when he is involved, he can face and solve the challenges encountered quickly, be aware of what's happening with the staff, make his assessments, motivate the staff for their progress, advise, and monitor them regularly. One of the challenges encountered during the change was the elder engineers refusing to adopt the new technology; he solved the issue by simplifying the software and identifying early technology adopters to easily communicate about the software's benefits and help them accept the new tool. According to Kirrane et al., (2016), when employees discern their managers to be supportive of



the change, they feel positive to handle the upcoming challenges and are readier for change. This indicates that an employee's ability to respond effectively to the change is related to the relations between their social environment perceptions and their psychological resources where the change is happening.

Mr. Arun told from the management's point of view, they knew what communication had to go to the staff, how and when the change will be implemented, to introduce it slowly because a new change is challenging for people to adapt. Also, the goal of the change by adopting RMS digital was to align it with the organization's strategic plan to go digital and save cost and optimize the available resources. Studies also showed that leading change demands integrating relevant leadership qualities and appropriate people. Relevant leadership qualities to lead change include self-awareness, self-regulation, self-motivation, empathy, and social skills (Issah 2016, p. 1). Self-awareness is vital as it promotes confidence and realistic assessments during the process. At the same time, self-regulation ensures the leader has integrity, is open to change, can comfortably manage ambiguity, and makes realistic assessments (Ashley & Reiter-Palmon 2012, p. 2, Gallo 2019, para 11), self-motivation depicts the leader's passion for stirring a change and optimism despite the challenges, and commitment to the organization.

Although Mr. Arun did not mention the same qualities in the literature review, he stated the essential leadership qualities and traits in implementing the change. The qualities are communication, motivation, empathy, managing conflicts, monitoring, team leader and staff involvement, and social skills that will help lead the change successfully.

Resistance

Line maintenance employees come from different backgrounds and cultures. During the interview with Mr. Arun, Manager Line Maintenance, he mentioned that most resistance came from the staff who were not familiar with digital technologies and the elderly staff with older mindsets. Other employees also resisted the new change at the beginning as they were used to working on the Excel sheet allocation instead of devices and systems as there were some fears from the staff of the systems. Moreover, when interviewing the RMS expert Mr. Noushad, he mentioned that the resistance, mainly came because of lack of knowledge, understanding, and lack of clear visions. Studies also showed similar arguments. According to Bateh, Castaneda & Farah (2013, p. 113), it shows that reasons for resistance include employees' lack of experience and motivation to understand the urgency of change. Resistance to change also results from broken agreements and trust violations between workers and the management, besides employees' fears that the transformation might cause job insecurity, losses, and stagnation (Elgohary & Abdelazyz 2020, p. 3). Tanner (2021) adds that poorly aligned reward systems and peer pressure might contribute to employees resisting change (para 2). The management might also be a change resistor because of the fear of the unknown. Further, organizational politics and the fear of failure are notable reasons a company's management might be a change resistor. These reasons also explain why employees often resist change. Malhotra et al. (2021) stated that types of resistance in change management include logical, sociological, and psychological resistance (479). Logical resistance originates from the time taken before adjusting to changes. Psychological resistance results from mental and psychological disruptions caused by change, including less tolerance, and sociological resistance occurs because of new values and customs (Toppr 2021, para 14).

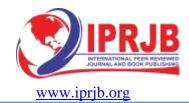


Based on the interviews, these resistances were managed gradually by giving clear guidance to the employees on the importance of RMS on a long-term basis and the benefits of this change, and providing continuous training, employee involvement, and effective communication and support from leadership. Furthermore, Mr. Arun stated that leadership also influenced the staff by trying to change their mindsets about the digital technologies and giving the chance to early adopters to showcase their skills to the other employees, target the young people, and slowly bring up the influence of change. Hence, while resistance to organizational change is inevitable, studies also stated many approaches to managing it. Effective ways of dealing with resistance include involving all corporate stakeholders, enlightening them on why it is vital, and assuring them that the transformation will not affect them adversely through job losses or salary deductions (RAlhezzani 2020, p. 9). Alsher (2016) adds that creating a personal rapport with the population targeted with the change, clear communication of expectations, and outlining how the transformation will lead to a win-win situation might also help deal with the change (para 7).

Critical Success Factors

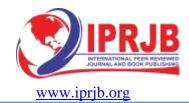
Mr. Arun mentioned that the critical success factors for Line Maintenance were better resource utilization and efficiency. Moreover, he also stated that RMS provided better staff visibility, as it shows in the system which aircraft the technician is working on, what tasks they are allocated, and the time they spend on each task. Since Dubai International Airport is a huge airport, Mr. Arun said that deploying the right staff at the right time will increase the growth rate, overall productivity, and performance of both the staff and the department overall. Mr. Noushad stated that those critical success factors would not have been achieved without effective teamwork, management support, and continuous training, which were the critical factors behind the success of this change. Mr. Arun said that developing small teams, identifying early technology adopters, customizing the RMS to line maintenance staff, and effective and constant communication was part of the change's success factors.

From another perspective, the literature stated that the critical success factors of change management in the airline industry include strategic alliances, forecasting and planning, marketing and branding, and technology. For example, EU-US Open Skies and Sky Team have used strategic alliances to stifle competition in their routes and enter into other major markets, securing a dominant position in domestic and global regions (Riwo-Abudho, Njanja, & Ochieng 2013, p. 86). The planning and forecasting success factor allow airlines to communicate their products and services effectively, building strong relationships between consumers and the offerings (Abdullah, Chew & Hamid, 2016, p. 249). Mr. Arun said adapting the new RMS system helped save time for maintenance staff where the flight information, figures, and arrival time are all in one screen, which helped save the cost and better utilization of the employees. Technological success factors help airlines increase convenience and reduce operational costs by mitigating labor and fuel inefficiencies (Riwo-Abudho, Njanja, & Ochieng 2013, p. 87). For marketing and branding, the airline industry can optimize this success factor to enhance brand image, tailor products ahead of customers' requests, and offer differentiated services boosting their competitive advantage to beat rivals (Wang, Tzeng, and Lee, 2010). Thus, alliances, forecasting and planning, marketing and branding, and technology are critical success factors for the airline industry.



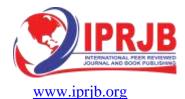
Summary

The line Maintenance department in Emirates Airlines established a new technological change of Resource Management System (RMS) to align with the organization's digital strategy. An RMS monitors flight movement, such as locations, arrivals, and departures, and then allocates resources based on scheduled shifts to ensure better workforce utilization. A qualitative research study was conducted by interviewing two Emirates Airlines- Line Maintenance employees. Furthermore, the study paper focused on the challenges, benefits of change, minimizing the resistance, communication, and optimizing resources within the Line Maintenance department. Also, the Manager of Line Maintenance has followed the same process of Kotter's change model when implementing and communicating the new change. To conclude, change management is embedded in Emirates Airlines by applying a change management strategy.



REFERENCES

- Abdullah, M, Chew, B and Hamid, S 2016, 'Benchmarking key success factors for the future green airline industry', *Procedia Social and Behavioral Sciences*, vol. 224, pp. 246-253.
- Alsher, P 2016, 9 effective tactics for managing resistance to change: Do what works. [online] Imaworldwide.com. Available from: https://www.imaworldwide.com/blog/9-effective-tactics-for-managing-resistance-to-change-do-what-works> [17 October 2021].
- Ashley, G and Reiter-Palmon, R 2012, 'Self-awareness and the evolution of leaders: The need for a better measure of self-awareness', *Journal of Behavioral and Applied Management*, vol. 14(1), pp. 12-17.
- Bateh, J, Castaneda, M and Farah, J 2013, 'Employee resistance to organizational change', *International Journal of Management & Information Systems*, vol. 17 no.2, pp. 113-116.
- Burnes, B 2019, 'The origins of Lewin's Three-Step Model of Change', *The Journal of Applied Behavioral Science*, vol. 56 no.1, pp. 32-59.
- Dou, X 2020, 'Big data and smart aviation information management system', *Cogent Business & Management*, vol. 7 vol.1, pp. 1-15.
- Elgohary, E and Abdelazyz, R 2020, 'The impact of employees' resistance to change on implementing e-government systems: An empirical study in Egypt', *The Electronic Journal of Information Systems in Developing Countries*, vol. 86 no. 6, pp. 1-14.
- Gallo, S 2019, *The Importance of Self-awareness in Leadership Training Industry*. [online] Training Industry. Available from: https://trainingindustry.com/articles/leadership/the-importance-of-self-awareness-in-leadership/> [17 October 2021].
- Halasz, H, Traynor, D and Bloom, J 2012, Making change work: Empowering students who are changing majors. *The Mentor: Innovative Scholarship on Academic Advising*, 14, pp. 1-5.
- Halpern, N, Mwesiumo, D, Suau-Sanchez, P, Budd, T and Bråthen, S 2021, 'Ready for digital transformation? The effect of organizational readiness, innovation, airport size, and ownership on digital change at airports', *Journal of air Transport Management*, 90, pp.1-12.
- Hao, M. and Yazdanifard, R., 2015, 'How effective leadership can facilitate change in organizations through improvement and innovation', *Global Journal of Management and Business Research*, vol. 15 no. 9, pp. 1-5.
- Hussain, S, Lei, S, Akram, T, Haider, M, Hussain, S and Ali, M 2018, 'Kurt Lewin's change model: A critical review of the role of leadership and employee involvement in organizational change. *Journal of Innovation & Knowledge*, vol. 3 no, 3, pp. 123-127.
- Issah, M., 2018, 'Change leadership: The role of emotional intelligence', *SAGE Open*, vol. 8 no.3, pp.1-6.
- Kirrane, M., Lennon, M., O'Connor, C. and Fu, N., 2017. Linking perceived management support with employees' readiness for change: the mediating role of psychological capital. *Journal* of Change Management, 17(1), pp. 47-66.



Kotter, J 2014, Accelerate, Boston, Mass: Harvard Business Review Press.

- Kozioł-Nadolna, K 2020, 'The role of a leader in stimulating innovation in an organization', *Administrative Sciences*, vol. 10 no. 3, pp. 1-18.
- Leavy, B 2014, 'Boldly leading with a dual operating network John Kotter addresses some likely practitioner concerns', *Strategy & Leadership*, vol. 42 no.6, pp. 13-16.
- Leybourne, S 2016, 'Emotionally sustainable change: Two frameworks to assist with the transition', *International Journal of Strategic Change Management*, vol. 7 no. 1, pp. 23-41.
- Malhotra, N, Zietsma, C, Morris, T and Smets, M 2020, 'Handling resistance to change when societal and workplace logics conflict', *Administrative Science Quarterly*, vol. 66 no. 2, pp. 475-520.
- Patricia, Marry. "Change Management in The Emirates Airlines 2696 Words | Report Example." Free Essays, 7 Mar. 2019,
- RAlhezzani, Y 2020, 'Change recipients' resistance and salience to organizational re-creation: the effects of participation and coercion strategies on change derailment', *Organization Management Journal*, vol. 18 no.1, pp. 2-18.
- Riwo-Abudho, M, Njanja, L and Ochieng, I 2013, 'Key success factors in airlines: Overcoming the challenges', *European Journal of Business and Management*, vol. 5 no. 30, pp. 84-88.
- Robert, James. "Change Management Assignment: Case Analysis of Emirates Airlines | Total Assignment Help." Assignment Help | Online Assignment Help | Assignment Help Australia, 11 Mar. 2011,
- Saxon, S and Wittkamp, N 2021. Back to the future? Airline sector poised for change post-COVID-19. [online] Mckinsey and Company. Available from: https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/ourinsights/back-to-the-future-airline-sector-poised-for-change-post-covid-19> [17 October 2021].
- Silling, U 2019, 'Aviation of the future: What needs to change to get aviation fit for the twentyfirst century', *Aviation and its Management - Global Challenges and Opportunities*, pp.1-30.
- Singh, S., 2020. Exclusive Interview: How Emirates Is Adapting With COVID-19. Accessed on 14th January 2021 from https://simpleflying.com/emirates-covid-19-adaptation/
- Tanner, R 2021, Organizational change: 8 reasons why people resist change. [online] Management is a Journey®. Available from: https://managementisajourney.com/organizational-change-8-reasons-why-people-resist-change/> [17 October 2021].
- Toppr 2021, *Resistance to change*. [online] Available from: https://www.toppr.com/guides/business-management-and-entrepreneurship/recent-trends-in-management/resistance-to-change/ [17 October 2021].



Wang, Y Tzeng, G and Lee, W 2010, 'Key success factors of brand marketing for creating the brand value based on a MCDM model combining DEMATEL with ANP methods', *Smart Innovation, Systems, and Technologies*, pp. 771-730.