Scaling Agile Methodologies For Organizational Transformation: A Telecommunication Industry Case Study In Malaysia

Shamsulkhomar Abu Bakar
Faculty of Management, Multimedia University, Cyberjaya, Malaysia
1221400834@student.mmu.edu.my

Magiswary Dorasamy
Faculty of Management, Multimedia University, Cyberjaya, Malaysia
magiswary.dorasamy@mmu.edu.my

Abstract

This study delves into the implementation and scalability of agile methodologies (am) within the telecommunications industry. Specifically, the research explores the application of agile at scale (A@S), a framework that promotes the adoption of agile principles on a larger scale. The main subject of the study is a leading multinational corporation (mnc) in malaysia, and a qualitative approach, including focus group interviews and thematic analysis, is used to examine the challenges, advantages, and influential factors in effectively implementing A@S. The research is grounded in the dynamic capability theory (DCT) and aims to evaluate the impact of A@S on organisational structure, culture, and performance. The ultimate objective is to create a strategic adoption framework. The study is expected to yield crucial insights into A@S challenges and success factors while providing a strategic framework to help telecommunication organisations thrive in rapidly changing environments. Additionally, it aspires to contribute to the discourse on digital-era organisational transformation.

Keywords: Agile Methodologies; Agile at Scale; Telecommunications; Dynamic Capability Theory; Qualitative Analysis

1. Background

Agile methodologies have transcended their software development origins, offering adaptability and responsiveness to changing market dynamics. These practices have gained traction within large-scale organisations, especially in the telecommunications sector, which faces challenges from emerging Over The Top (OTT) service providers. This study examines a Malaysian telecommunications giant, referred to as "Telecommunication Multinational" (TM), which has embarked on an Agile journey to achieve total operational agility by 2025. TM's initiative represents a significant organisational shift, adopting Agile at Scale (A@S) to enhance market competitiveness through customer-centricity and swift market delivery [1][9].

2. Problem Background and Research Gap

Despite the initial adoption of Agile methodologies, the complete integration within large-scale organisations remains challenging. The research identifies a gap between academic models and the practical application of Agile at Scale, particularly in the context of the telecommunications industry [2][6].

3. Research Questions and Research Objectives

The purpose of this research journey is to pinpoint the primary challenges and barriers hindering the complete integration of A@S in TM, assess the perceived advantages, and propose a strategic framework to facilitate Agile implementation in a multinational telecommunications setting. This study endeavours to answer the following questions: 1. What challenges prevent the full adoption of A@S in TM? 2. How has the A@S program aided TM in achieving its strategic goals, and what are the perceived benefits? 3. What strategic framework can be proposed to improve A@S adoption and effectiveness in an MNC like TM? Furthermore, this study has the following objectives: 1. Discover and scrutinise the reasons for the obstacles to completing A@S adoption in TM. 2. Evaluate the benefits perceived from the A@S program and its contribution to TM's strategic objectives. 3. Develop a strategic framework to reinforce A@S adoption and efficacy in TM [3][5][7].

4. Underlying Theory(ies)

The Dynamic Capability Theory underpins the study, which offers a perspective on organisational agility and adaptability in the face of environmental dynamism [12].

5. Method

Employing a case study approach, data collection is achieved through interviews and document reviews. The analysis is guided by Thematic Analysis principles to ensure the validity of the findings [4][8].

6. Conclusion

This research contributes to academic and practical understanding by providing a strategic framework for Agile adoption within the telecommunications sector. The study's outcomes will inform future research and practical initiatives, advancing organisational transformation discussions in the digital age [10][11].

References

[1] H. Hirner, M. Lavicka, S. Schefer-Wenzl and I. Miladinovic, "Agile Software Integration in Telecommunications — a Case Study," 2019 27th Telecommunications Forum (TELFOR), Belgrade, Serbia, 2019, pp. 1-4, doi: 10.1109/TELFOR48224.2019.8971239.

[2] Batool, A. (2019). A Survey of Key Challenges of Adopting Agile in Global Software Development: A Case Study with Malaysia. ResearchGate. https://www.researchgate.net/publication/335975504_A_Survey_of_Key_Challenges_of_Adopting_Agile_in_Global_Software_Development_A_Case_Study_with_Malaysia_Perspective

[3] Moe, N. B., & Mikalsen, M. (2020). Large-scale Agile Transformation: a case study of transforming business, development and operations. In Springer eBooks (pp. 115–131). https://doi.org/10.1007/978-3-030-49392-9_8

[4] Brown, A. W., Ambler, S., & Royce, W. (2013). Agility at scale: Economic governance, measured improvement, and disciplined delivery. Proceedings - International Conference on Software Engineering, 873–881. https://doi.org/10.1109/ICSE.2013.6606636

[5] Paasivaara, M., Behm, B., Lassenius, C., & Hallikainen, M. (2018). Large-scale agile transformation at Ericsson: a case study. Empirical Software Engineering, 23(5), 2550–2596. https://doi.org/10.1007/s10664-017-9555-8

[6] Dikert, K., Paasivaara, M., & Lassenius, C. (2016). Challenges and success factors for large-scale agile transformations: A systematic literature review. Journal of Systems and Software, 119, 87–108. https://doi.org/10.1016/j.jss.2016.06.013

[7] Annosi, M. C., Mattarelli, E., Micelotta, E., & Martini, A. (2022). Logics' shift and depletion of innovation: A multi-level study of agile use in a multinational telco company. Information and Organization, 32(3), 100421. https://doi.org/10.1016/j.infoandorg.2022.100421

[8] Hutter, K., Brendgens, F., Gauster, S. P., & Matzler, K. (2023). Scaling organisational agility: key insights from an incumbent firm's agile transformation. Management Decision. https://doi.org/10.1108/md-05-2022-0650

[9] Mattey, C., Luisada, F., Bearez, J., Lenhard, E., Martin, D., & Walsh, B. (2021). Scaling Up Agile at Telcos. BCG Global. https://www.bcg.com/publications/2019/scaling-up-agile-telcos

[10] Getting lean, agile, and strong: transformations in the telecom industry. (2015, March 4). Kearney. Retrieved July 12, 2023, from https://www.middle-east.kearney.com/communications-media-technology/article/-/insights/getting-lean-agile-and-strong-transformations-in-the-telecom-industry

[11] Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. Journal of Marketing, 69(4), 167–176. https://doi.org/10.1509/jmkg.2005.69.4.167

[12] Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509-533.