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Evolution of agile project management practices during a M&A of a European and a Chinese Company

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Abstract

The volatile environment is nothing new, but in the last two years, when the world had to cope with the pandemic, it was the agile companies that were able to survive or even make a profit. More than ever, the business is done through projects and the practices used make the difference between being fast and agile or being a follower. The present work analyses the presence of agile practices in the context of the merger and acquisition of a European and a Chinese company in Europe. The research aims to close the gap of adding empirical evidence of adopting agile project management practices in a manufacturing company as well as how the project management is transformed in the context of a merger and acquisition.

Keywords

Agility, Agile Project Management, Agile Practices, Mergers and Acquisitions, Project-as-practice

1. Introduction

Constant change, uncertainty and unpredictable environment have always been a challenge for companies (Sharifi and Zhang, 2001; Small and Downey, 1996; Bessant *et al.*, 2002). However, it is the way the companies deal with this constant that makes them stand out and survive (Shams *et al.*, 2021; Sherehiy, Karwowski and Layer, 2007; Sharifi and Zhang, 1999). In the manufacturing industry, the leading paradigm to overcome volatility is to react quickly, respond to changing demand from the market, deliver high quality, increase productivity and, with optimization, reduce cost (Cho, Jung and Kim, 1996). There is one other tool frequently used to reduce uncertainty, gaining market share, add new resources, ensure growth, and lead the way to achieving strategic business objectives - mergers and acquisitions (Kumar, 2019; Karst and Johnson, 2020; Sun, 2018; Zhu and Zhu, 2016; Yang and Hyland, 2012; Tallon and Pinsonneault, 2011). So, looking at the companies that went through mergers and acquisitions, what do these companies have in common? They are deemed as "adaptive", "flexible", or "agile" (Sherehiy, Karwowski and Layer, 2007).

Such companies are usually also project oriented (Tordrup and Engholm, 2022, Lasinska N, 2021), performing business development through projects. The more R&D oriented are prone to using the traditional, stage-gate project approach and the more IT or software-oriented use more agile project approach. However, the hard distinction between the two is quickly vanishing, since today, almost all companies rely on IT and software. So, it is no surprise that the traditional project approach and agile project approach have long been on the road to coming together. After the initial decade of the introduction of agile practices, the companies turned to the agile community, asking how best to adopt agile practices (Sidky, Arthur and Bohner, 2007; Thesing, Feldmann and Burchardt, 2021; Gandomani and Nafchi, 2015).

Surprisingly, even though the term agility has been around for more than 30 years (Ulrich and Yeung, 2019), it has been extensively researched, mostly in the field of "software" (Vallon *et al.*, 2018; Inayat *et al.*, 2015; Jovanovic *et al.*, 2020). Research in other areas of industry, as well as different types of projects, is long overdue (Conforto *et al.*, 2014). More specifically, insight into the area of integrating agile into the stage-gate model is missing (Karlström and Runeson, 2005). Meaning research in [hybrid] approaches to overcome challenges (Cao *et al.*, 2009; Jovanovic *et al.*, 2020) in the volatile environment and the adaptation with the tailoring of use of such approaches in different projects and organizational environments (Cao *et al.*, 2009) is missing.

Present research intends to close this gap by answering the research question on how are agile practices in project management evolving during a merger of 2 companies while combining agile and stage-gate project approach practices.

Following the introduction, insight into the theory and the past work is provided. Here the gap in the research is made even more evident. In the research design section gathering of data and methods use is provided. In the discussion and conclusion section the contribution and further works is presented.

2. Theoretical insights

This part is dedicated to the theoretical basis of the present research, indicating the lens and the most relevant underpinnings.

2.1. Agility

Agility has been part of the quest of identifying the key competencies a company must possess (to build competitive advantage and thus be successful) for the past 30 years (Ulrich and Yeung, 2019). In essence, agility is the ability to (1) create a future, (2) anticipate opportunity, (3) adapt quickly and (4) learn always (Ulrich and Yeung, 2019).

2.1.1. Agility on company level

On the *company level*, agility is the ability of an organization to quickly and flexibly respond to market opportunities without sacrificing efficiency (Junni *et al.* 2015). It is its ability to continuously adapt to changing and uncertain environments (Goldman, Nagel and Preiss, 1995; Lin, Chiu and Chu, 2006).

2.1.2. Agility on the project management level

On the *level of project management*, agility is “[...] an approach based on a set of principles, whose goal is to render the process of project management simpler, more flexible and iterative in order to achieve better performance (cost, time and quality), with less management effort and higher levels of innovation and added value for the customer” (Conforto *et al.* 2014).

2.2. Project-as-practice theory

“Project-as-practice” theory is based in social sciences and is part of the stream that focuses on an empirical and process-oriented approach (Morris, Pinto and Söderlund, 2011). It has a descriptive focus, emphasizing the practice and putting it as the center of the unit of analysis (Nicolini 2012).

Following the written, the research is building on the Project-as-practice theory, looking through the lens of agility.

3. Research Methodology

3.1. Research design

At the core of the research is the project management transformation by analyzing the use of agile project management practices in projects before and after the merger of a European and Chinese company. The evaluation on the level of projects inside different departments is done by using a framework - the Sidky Agile Management Index (Sidky, Arthur and Bohner, 2007) and Scaled Agile Framework (SAFe) (‘Achieving Business Agility with SAFe ® 5’ 2021). The Sidky Agile Management Index provides the framework to assess a company's highest level of agility it can achieve by setting the target level of agility on the project level. Next to that, the Agile scaled framework adds the ten underlying principles: economic view, system thinking, variability and preserve options, integrate learning cycles, base milestones on objective evaluation of working systems, reduce batch sizes, apply cadence, unlock intrinsic motivation of workers, decentralize decision making, organize around value (‘Achieving Business Agility with SAFe ® 5’ 2021). In parallel a survey devised by Sharifi and Zhang (Sharifi and Zhang, 2001) on organizational agility is utilized to determine the current level of company's agility. The insight is used as the base of comparison where the company is at the moment and where it needs to be in regard to its business environment.

The method used is the qualitative research approach using an embedded in-depth single case study of a company (Yin, 2018). The case study is exploratory, descriptive and explanatory in nature (Martinsuo and Huemann, 2021), analyzing the presence of agile project management practices in projects managed in all three typical phases of the merger: pre-merger, merger,

post-merger (DePamphilis, 2019). To cover the whole timeline of agile practice evolution, a retrospective analysis is used with clear instructions to mitigate the usual high risk of bias (Nelson, 2007). The research is conducted through observation in a real-life setting, with the particular dynamic taking place (Maylor, Blackmon, Huemann, 2017). The main limitation of the research is the scope of the research. The merged company has more than 20 departments, however the survey is covering only the departments which can answer the questions set in the Zhang and Sharifi survey. Also, during the research there was a strong push to set up a Digital strategy until 2025, including implementation of agility.

With this approach the research will answer the main research question: How are agile practices in project management evolving during a merger of 2 companies while combining agile and stage-gate project approach practices?

3.2. Data collection

For the data collection on the company level 2 sets of questionnaires were distributed in February 2023 – 1st assessing how turbulent is the business environment of the merged company (looking on the market, competition, customers, product and manufacturing technology, sustainability and governmental laws and suppliers) and the 2nd assessment what is the current level of agility of the merged company. The 2nd round of same questions will be sent beginning of March to assess the situation before the merger for each company separately.

Gathered answers from 9 sales business units are analyzed inside the 1KA surveys tool.

Gathering the insight on the presence of agile project management practices inside projects will be conducted in April/May 2023 using semi-structured interviews and a survey. For each department (marketing, logistic, sales, IT, R&D) projects will be chosen covering 3 criteria: started before the merger, started during the merger, started after the merger. Interviews will be between 45-90 min. and the survey will be devised afterwards to add to additional insight. All interviews will be done over Teams and transcribed afterwards. For the interviews held in Slovenian language will be translated into English.

4. Analysis

Based on the available data from the surveys and the semi-structured interviews on the company and the department/project level, the research is showing the past and current level of agility on the company level, uncovering a trend. This insight is used as the basis for the insight into the department and project level, showing if this is reflected in the same way. The second observation on the project level is to see the project management transformation through time until today.

5. Discussion

To link the found insight with the literature and theory the research is following 3 assumptions:

1. Chinese company is operating in a highly volatile and competitive environment globally; hence it should show that it uses several agile practices in different types of projects.
2. The predominantly stage-gate oriented project management in the European company is a result of a less volatile environment, hence agile project management practices are found only in software development projects.

3. After the merger of the 2 companies the need for agility has increased because of the transition of both companies to new markets. From that perspective the need for executing projects with the usage of more agile practices is higher.

What could come as a surprise is how much the Chinese company has taken over the stage-gate way of managing projects in the process of project management transformation, resulting in a hybrid version (agile and stage-gate) of the project approach in the merged corporation. Also the implementation of the Digital strategy of the merged company is a contributing factor in spreading the knowledge about the agile project management practices, hence presenting a tool to increase the adoption.

6. Conclusion

The use of agile methods in the software industry is almost a standard. However, the transition into other areas like logistic, marketing and HR is on the rise for years. Especially in turbulent times, the agile approach can make a difference between profit and loss. Where some see potential to implement, others have it already in their daily business. This is true for the researched case of the Chinese company taking over the European. A significant role plays the volatility of the environment, and since the Asian environment is more challenging in terms of competition, it requires a higher level of agility to react. Flowing down to the department and project level, the clash of the stage-gate and the agile project management approaches unmistakably creates a new, hybrid project management in the merged company.

The presented case offers an insight on how agile project management practices are implemented in a manufacturing company in the context of a merger and acquisition and that the company will choose only the practices that contribute to value creation and are feasible to implement.

For further research, a multi-case study could be conducted revealing a trend of using agile and stage-gate practices as needed, companies taking the "best of both" in a specific situation or a project.

7. References

- Knaster, R., and Leffingwell, D. (2020). SAFe 5.0 Distilled: Achieving Business Agility with the Scaled Agile Framework. Retrieved from <https://scaledagile.com/resources/safe-distilled/>.
- Bessant, J. *et al.* (2002) 'Developing the agile enterprise', *International Journal of Technology Management*. Inderscience Publishers, 24(5–6), pp. 484–497. doi: 10.1504/IJTM.2002.003066.
- Cao, L. *et al.* (2009) 'A framework for adapting agile development methodologies', *European Journal of Information Systems* 2009 18:4. Palgrave, 18(4), pp. 332–343. doi: 10.1057/EJIS.2009.26.
- Cho, H., Jung, M. and Kim, M. (1996) 'Enabling technologies of agile manufacturing and its related activities in Korea', *Computers & Industrial Engineering*. Pergamon, 30(3), pp. 323–334. doi: 10.1016/0360-8352(96)00001-0.
- Conforto, E. *et al.* (2014) 'Executive Report Project Management Agility Global Survey Agility as a in Project Management Cited as Executive Report | Project Management Agility Global Survey |'. Available at: www.sxc.hu/photo/ (Accessed: 12 April 2022).
- DePamphilis, Donald M. 2019. Mergers, Acquisitions, and Other Restructuring Activities. 10th ed. Elsevier.

- Goldman, S. L., Nagel, R. N. and Preiss, K. (1995) 'Agile Competitors and Virtual Organizations: Strategies for Enriching the Customer', *Long Range Planning*, 29, p. 131. Available at: https://books.google.com/books/about/Agile_Competitors_and_Virtual_Organizati.html?hl=sl&id=33G1AAAAIAAJ (Accessed: 8 April 2022).
- Inayat, I. *et al.* (2015) 'A systematic literature review on agile requirements engineering practices and challenges', *Computers in Human Behavior*. Pergamon, 51, pp. 915–929. doi: 10.1016/J.CHB.2014.10.046.
- Javdani Gandomani, T. and Ziaei Nafchi, M. (2015) 'An empirically-developed framework for Agile transition and adoption: A Grounded Theory approach', *Journal of Systems and Software*. Elsevier, 107, pp. 204–219. doi: 10.1016/J.JSS.2015.06.006.
- Jovanovic, M. *et al.* (2020) 'Agile Transition and adoption Frameworks, Issues and Factors: a Systematic Mapping', *IEEE Access*. Institute of Electrical and Electronics Engineers Inc., 8, pp. 15711–15735. doi: 10.1109/ACCESS.2020.2967839.
- Junni, P. *et al.* (2015) 'The Role of Strategic Agility in Acquisitions', *British Journal of Management*. John Wiley & Sons, Ltd, 26(4), pp. 596–616. doi: 10.1111/1467-8551.12115.
- Karlström, D. and Runeson, P. (2005) 'Combining Agile methods with stage-gate project management', *IEEE Software*, 22(3), pp. 43–49. doi: 10.1109/MS.2005.59.
- Karst, R. and Johnson, A. (2020) 'Multinational Enterprises and Cross-border Acquisitions: Evolution of the Field', *The International Trade Journal*. Routledge, pp. 1–16. doi: 10.1080/08853908.2020.1822235.
- Kumar, B. R. (2019). Mergers and Acquisitions. In *Management for Professionals, Wealth Creation in the World's Largest Mergers and Acquisitions* (1-15). Springer. <https://doi.org/10.1007/978-3-030-02363-8>.
- Lasinska N (2021) 'Hybrid management methodology for transport projects related to rolling stock', *Journal of Engineering Sciences*, 8(2), pp. 7–11. doi: 10.21272/jes.2021.8(2).b2.
- Lin, C. T., Chiu, H. and Chu, P. Y. (2006) 'Agility index in the supply chain', *International Journal of Production Economics*. Elsevier, 100(2), pp. 285–299. doi: 10.1016/J.IJPE.2004.11.013.
- Martinsuo, M. and Huemann, M. (2021) 'Designing case study research', *International Journal of Project Management*. Elsevier, 39(5), pp. 417–421. doi: 10.1016/J.IJPROMAN.2021.06.007.
- Maylor, Harvey, Kate Blackmon, and Martina Huemann. 2017. Researching business and management. London: Palgrave.
- Morris, P. W. G., Pinto, J. K. and Söderlund, J. (2011) 'The Oxford handbook of project management'. Oxford University Press, p. 550.
- Nelson, R. R. (2007) 'IT project management: infamous failures, Classic mistakes, and best practices', *MIS Quarterly Executive*, 6(2), pp. 67–78. Available at: https://dlwqtxts1xzl7.cloudfront.net/37052381/IT_Project_Management-with-cover-page-v2.pdf?Expires=1661717701&Signature=NRiKge60JB1sc1NN9ZGtcKv4phcD9aiZfD4jA6y5Y4uIKZqK0gGxcpfK~TSZpVbjcLnbUEg1kr-urf0-up99qqEAmtuFfa8nayobwavKfHxjEMAUR9mXOeel-rE3GouLbgRigTEkayEju7cfSZMhhpSp4UUUVUZjFm8Wim4Nk3Yp0C1wP1NC9u6gh~jP4yHZk7iPQASaU4Th-vbBocFhdVj4BUyCHvqOEF Ej6a8EZhHk4g94Tglj0PRVnUq7M8O6FRKGYW8LCRXfNYlbeZ96Yo1m~Lt3fsHM65lCis3KVejcBh3glJugygcS8YRNf2BWSHbf-Mzue8YDqidZjWuBF6Q__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA (Accessed: 28 August 2022).
- Nicolini, D., 2012. Practice theory, work and organisation: an introduction. Oxford: Oxford University Press.

Shams, R. *et al.* (2021) 'Strategic agility in international business: A conceptual framework for "agile" multinationals', *Journal of International Management*. Elsevier Inc., 27(1), p. 100737. doi: 10.1016/j.intman.2020.100737.

Sharifi, H. and Zhang, Z. (1999) 'A methodology for achieving agility in manufacturing organisations: An introduction', *International Journal of Production Economics*. Elsevier, 62(1–2), pp. 7–22. doi: 10.1016/S0925-5273(98)00217-5.

Sharifi, H. and Zhang, Z. (2001) 'Agile manufacturing in practice - Application of a methodology', *International Journal of Operations & Production Management*. MCB UP Ltd, 21(5–6), pp. 772–779. doi: 10.1108/01443570110390462.

Sherehiy, B., Karwowski, W. and Layer, J. K. (2007) 'A review of enterprise agility: Concepts, frameworks, and attributes', *International Journal of Industrial Ergonomics*. Elsevier, 37(5), pp. 445–460. doi: 10.1016/J.ERGON.2007.01.007.

Sidky, A., Arthur, J. and Bohner, S. (2007) 'A disciplined approach to adopting agile practices: the agile adoption framework', *Innovations in Systems and Software Engineering 2007 3:3*. Springer, 3(3), pp. 203–216. doi: 10.1007/S11334-007-0026-Z.

Small, A. W. and Downey, E. A. (1996) 'Orchestrating multiple changes: a framework for managing concurrent changes of varied type and scope', *IEEE International Engineering Management Conference*. IEEE, pp. 627–634. doi: 10.1109/IEMC.1996.547891.

Sun, Z. (2018) 'Chinese reverse M&A: the Wu Wei paradigm of post-M&A integration process', *Chinese Management Studies*. Emerald Group Publishing Ltd., 12(4), pp. 774–794. doi: 10.1108/CMS-12-2017-0338.

Tallon, P. P. and Pinsonneault, A. (2011) 'Competing perspectives on the link between strategic information technology alignment and organizational agility: Insights from a mediation model', *MIS Quarterly: Management Information Systems*. University of Minnesota, 35(2), pp. 463–486. doi: 10.2307/23044052.

Thesing, T., Feldmann, C. and Burchardt, M. (2021) 'Agile versus Waterfall Project Management: Decision Model for Selecting the Appropriate Approach to a Project', *Procedia Computer Science*. Elsevier, 181, pp. 746–756. doi: 10.1016/J.PROCS.2021.01.227.

Tordrup, L. and Engholm, A. (2022) 'A MODEL OF AGILE LEADERSHIP COMPETENCIES AND SKILLS: A CASE STUDY OF AN AGILE TRANSFORMATION', in *The 45th Information Systems Research Seminar in Scandinavia (IRIS2022)*, Denmark, pp. 1–14. Available at: https://irisscis2022.cbs.dk/wp-content/uploads/2022/06/IRIS_45_paper_11.pdf (Accessed: 15 August 2022).

Ulrich, D. and Yeung, A. (2019) 'Agility: the new response to dynamic change', *Strategic HR Review*. Emerald Publishing Limited, 18(4), pp. 161–167. doi: 10.1108/SHR-04-2019-0032.

Vallon, R. *et al.* (2018) 'Systematic literature review on agile practices in global software development', *Information and Software Technology*. Elsevier, 96, pp. 161–180. doi: 10.1016/J.INFSOF.2017.12.004.

Warter, L., Warter, I. and Alexandru, " (2014) *INTERCULTURAL ISSUES IN MERGERS AND ACQUISITIONS. ARE CULTURAL DIFFERENCES AN ASSET OR A LIABILITY?* *Business Ethics View project Intercultural Management View project INTERCULTURAL ISSUES IN MERGERS AND ACQUISITIONS. ARE CULTURAL DIFFERENCES AN ASSET OR A*. Available at: <https://www.researchgate.net/publication/267765060> (Accessed: 22 September 2019).

Yang, M. and Hyland, M. A. (2012) 'Similarity in Cross-border Mergers and Acquisitions: Imitation, Uncertainty and Experience among Chinese Firms, 1985–2006', *Journal of International Management*. Elsevier, 18(4), pp. 352–365. doi: 10.1016/J.INTMAN.2012.09.001.

Yin, Robert K. 2018. Case Study research and applications. Los Angeles: Sage

Zhu, H. and Zhu, Q. (2016) 'Mergers and acquisitions by Chinese firms: A review and comparison with other mergers and acquisitions research in the leading journals', *Asia Pacific Journal of Management*. Springer New York LLC, pp. 1107–1149. doi: 10.1007/s10490-016-9465-0.