

# The Age of Agile Enterprises

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## Abstract

*Since the turn of the century, the global market environment has become hypercompetitive. As the pace of technological novelty continues to abruptly advance, the competition between enterprises will be more intense. In order to meet customer expectations and quickly respond to market changes, enterprises has to apply agility to their processes, products and/or services. It is basically a winning business philosophy and mindset that should be part of any organizational culture as agility conducts to productivity gains, quality improvement and innovation. The aims of the paper are to define the agile enterprise concept and briefly characterize this type of enterprise. To reach the goals of the paper, the author used a qualitative research method based on a desk research exploration. The paper contributes to a better understanding of the agile enterprise concept. Also, it briefly illustrates some of the key features of agile enterprises that led to their expansion worldwide.*

**Key words:** agile enterprise, agility, enterprise, organization

**J.E.L. classification:** L2, M00

## 1. Introduction

Since the turn of the century, the global market environment has become hypercompetitive. A plethora of factors, such as the diffusion of globalization all over the world, the rapid ageing of the workforce, especially in advanced economies, the labour force migration, the higher-than-expected rate of inflation, geopolitical tensions, customization and the widespread adoption of new technologies, have led to significant changes both in the economic and business landscape (Lipsey, 1999; Toma, 2005; Krueger, 2006; Shine, 2023).

As the pace of technological novelty continues to abruptly advance, the competition between enterprises as well as between countries will be more intense. Digitalization, Internet of Things, communications and artificial intelligence (AI) are among the factors that have a major impact on enterprises and provide competitive advantage in today's Industry 4.0 (Tohănean *et al*, 2018; Toma *et al*, 2018; International Strategic Analysis, 2019). The emergence and rapid expansion of AI in an increasing number of domains (e.g., data analytics, aerospace, automotive industry, defense industry) is already producing breakthrough innovations and efficiency improvements (Siraudin *et al*, 2023). Moreover, AI-based approaches strengthen systems agility and resilience, and facilitate growth (Wang *et al*, 2022; Stern *et al*, 2023).

Today's turbulent market environment requires business organizations to continuously adapt to its shifting conditions. In order to meet customer expectations and quickly respond to market changes, enterprises has to apply agility to their processes, products and/or services. It is basically a winning business philosophy and mindset that should be part of any organizational culture as agility conducts to productivity gains, quality improvement and innovation.

The aims of the paper are to define the agile enterprise concept and briefly characterize this type of enterprise. The paper is structured as follows. The next part displays the literature review. The research methodology is shown in the third part of the paper. The findings of the paper are illustrated in the fourth part. The last part of the paper exhibits the conclusions.

## 2. Literature review

Since the beginning of this century, numerous scientific studies have been published about agile enterprises. Agile means not only able to „move quickly and easily” (The Britannica Dictionary, 2023, p.1), but also to successfully deal with changes (Cambridge Dictionary, 2023) or to „move with quick easy grace” (Merriam-Webster, 2023, p.1). Due to the fact that today’s complex business world requires continuous adaptation to its shifting conditions, agility has become a core feature of many enterprises, regardless of their dimension and industry. As a characteristic that helps an organization to “deliver more value to customers and achieve better business outcomes” (Moreira, 2017, p.2) and “the ability of an organization to thrive in a continuously changing, unpredictable business environment” (Dove, 1991, p.19), agility encompasses not only the physical ability to operate but also the intellectual capacity to detect suitable things to act on (Dove, 2001).

In academia, the agile enterprise concept was launched in 1991 when the American Lehigh University organized a collaborative workshop entitled “21st Century Manufacturing Enterprise Strategy– An Industry Led View” (Dove *et al*, 1991). In spite of the fact there is no universal definition, the agile enterprise is seen as:

- “one which is able to both manage and apply knowledge effectively” (Dove, 1991, p.18).
- “the ability of an enterprise to develop and exploit its inter- and intra-organisational capabilities to successfully compete in an uncertain and unpredictable business environment” (Hooper *et al*, 2001, p.630).
- “the organisation’s capacity to gain competitive advantage by intelligently, rapidly and proactively seizing opportunities and reacting to threats” (Bessant *et al*, 2002, p.487).
- an organization that “has a continuous change culture and business processes to adapt the enterprise in response to disruptive events” (Cummins, 2009, p.23).
- “an organization’s ability to develop and quickly apply flexible, nimble and dynamic capabilities” (Holbeche, 2015, p.11).

The deployment of the Fourth Industrial Revolution has changed the way enterprises operate all over the world. The fusion of technologies is one of the main features of this revolution that has led to the emergence of a new type of enterprises, digital and agile (Toma, 2013; Schwab, 2016; Siebel, 2019). The vast majority of them are familiar with and use a plethora of distinct tools and methods in order to become and remain competitive, such as Six Sigma (Toma, 2008; Van Assen *et al*, 2009), balanced scorecard (Toma *et al*, 2010; Van den Berg *et al*, 2015), quality management (Toma *et al*, 2009; McGrath *et al*, 2017), lean management (Ten Have *et al*, 2003; Marinescu *et al*, 2008;), marketing mix (Grădinaru *et al*, 2017a; Catană *et al*, 2021), corporate social responsibility (Toma *et al*, 2011; Imbrișcă *et al*, 2020) and organizational learning (Toma, 2012; Marinescu *et al*, 2013). Also, the Fourth Industrial Revolution imposes enterprises to adopt entrepreneurial thinking (Grădinaru *et al*, 2017b; Zainea *et al*, 2020), rapidly design and implement enduring strategies (Cornescu *et al*, 2004; Toma *et al*, 2015; Toma *et al*, 2016) and green business models (Toma *et al*, 2019).

Therefore, the agile enterprise concept represents a rather complex one in the business literature. Some of the main characteristics of this type of enterprise are briefly displayed in the fourth section of the paper.

## 3. Research methodology

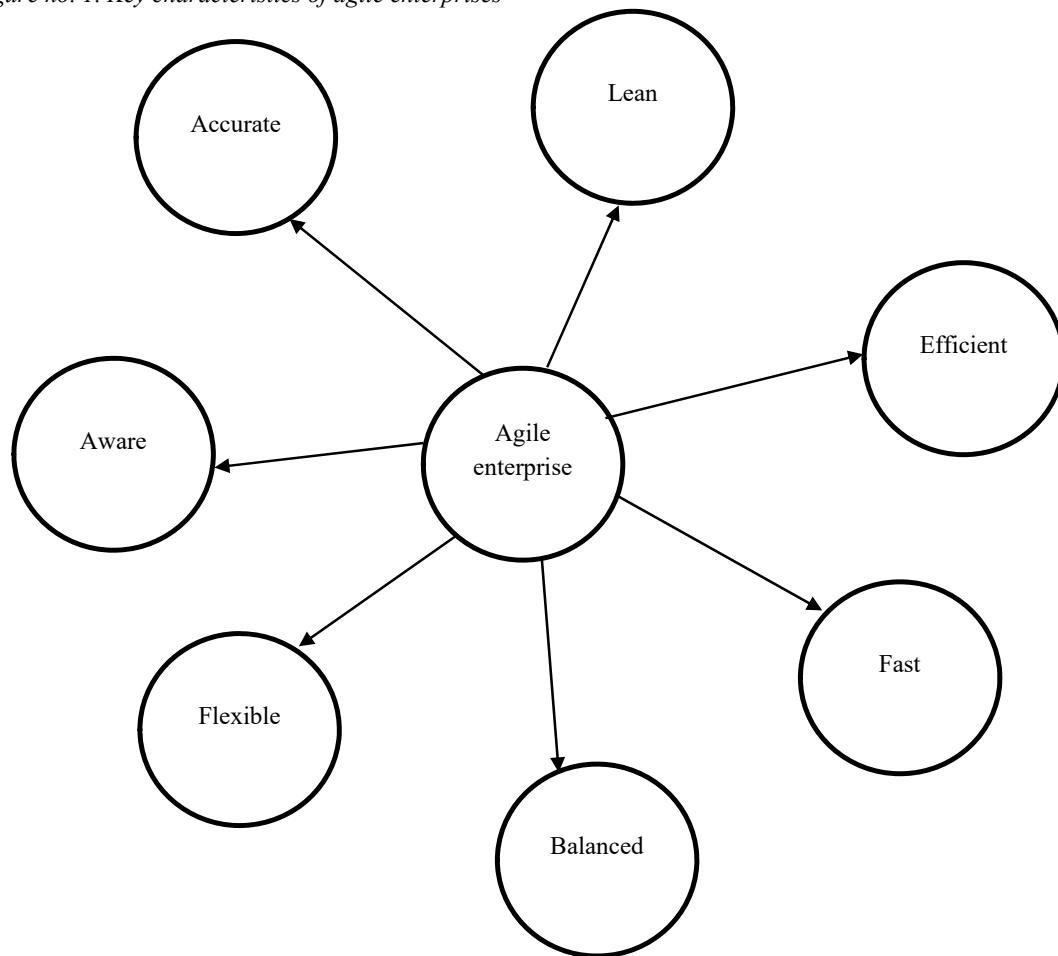
To reach the aims of the paper, the author used a qualitative research method based on a desk research exploration. The desk research was based on the investigation of various secondary sources through the deployment of a broad literature review. In this respect, the author identified and classified several articles and books found in Romanian libraries (e.g., the Central University Library Carol I of Bucharest) and electronic databases (e.g., Emerald Insight). Then, he analyzed, synthesized the data and, wrote the paper.

#### 4. Findings

After carrying out the literature review, the author succeeded in reaching some interesting results. He identified the following main features of the agile enterprise:

- Enterprise agility has three cornerstones:
  - The well-timed awareness that changes should be performed, facilitated by concentrated knowledge management processes.
  - The effective hierarchization and choice-making from several competing variants, facilitated by value-propositioning skills.
  - The response ability which represents the capacity of changing business processes and customizing responses in due time (Dove, 2005).
- There are several key characteristics of a an agile enterprise. Efficiency and flexibility are among them (Figure no. 1).

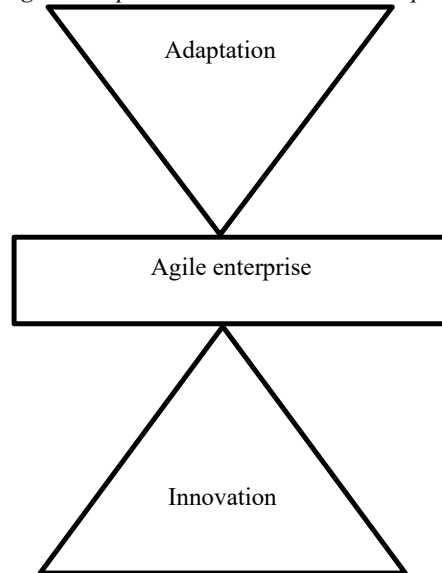
Figure no. 1. Key characteristics of agile enterprises



Source: (Waldock, 2015)

- An enterprise may become agile by achieving the balance between the adaptation approach and the innovative approach (Figure no. 2). On the one hand, the innovative capacity allows an enterprise to change the environment. Thus, it may become a disruptive force within the marketplace. On the other hand, the enterprise has to adapt itself to the market changes.

Figure no. 2. The agile enterprise, a balance between adaptation and innovation



Source: (Pal et al, 2005)

- As a business organization, the agile enterprise has to be able to face the threats and seize the opportunities of its external environment. In this sense, it should assimilate the values and principles of the agile philosophy and implement them in its processes and activities as follows:
  - an organizational culture of engaging both customers and employees;
  - a learning organizational culture;
  - accurate knowledge management;
  - focus on the desired business outcomes;
  - continuous delivery of valuable products and/or services;
  - building projects around motivated people;
  - sustainable development;
  - ability to manage change;
  - adaptive capacity;
  - quickness in decision-making;
  - technical excellence;
  - good design;
  - accelerated innovation;
  - speed;
  - simplicity;
  - self-organizing work teams etc. (Holbeche, 2015; Moreira, 2017).
- In order to rapidly adapt to disruptive phenomena, the top management of an agile enterprise should have a new way of business thinking. As agility requires a new business paradigm, technology plays a fundamental role in its processes and activities. This is why the agile enterprise uses and implements specific configurations and methods, such as service-oriented architecture (SOA), model-driven architecture (MDA), and business process management (BPM).

The above-mentioned characteristics illustrate that agile enterprises may become successful business organizations in a highly turbulent global business world.

## 5. Conclusions

In the last decades, agility has been a topic of interest for many researchers and practitioners from various domains. Consequently, agility has become a quintessential characteristic of many enterprises all over the world, irrespective of their size and industry, operating in a constantly changing environment.

The paper contributes to a better understanding of the agile enterprise concept. Also, it briefly illustrates some of the key features of agile enterprises that led to their expansion worldwide.

This research may be widened by future studies that can emphasize other characteristics of agile enterprises.

## 6. References

- Bessant, J., Knowles, D., Briffa, G. and Francis, D., 2002. Developing the agile enterprise. *International Journal of Technology Management*, 24(5/6), pp. 484-497. <https://doi.org/10.1504/ijtm.2002.003066>
- Cambridge Dictionary, 2023. *Agile*. [online] Available at: <https://dictionary.cambridge.org/dictionary/english/agile> [Accessed 27 May 2023].
- Catană, Ș.-A. and Toma, S.-G., 2021. Marketing mix and corporate social responsibility in automotive industry—Case study: Mazda Motor Corporation. *Annals of' Constantin Brancuși' University of Târgu-Jiu, Economy Series*, 1, pp. 205-209.
- Cornescu, V., Curteanu, D., Marinescu, P. and Toma, S.-G., 2004. *Management from Theory to Practice*. Bucharest: University of Bucharest Publishing House.
- Cummins, F. A., 2009. *Building the Agile Enterprise With SOA, BPM and MBM*. Burlington, MA: Morgan Kaufmann Publishers. <https://doi.org/10.1016/B978-0-12-374445-6.00001-7>
- Dove, R., Nagel, R., Goldman, S. and Preiss, K., 1991. *21st Century Manufacturing Enterprise Strategy – An Industry Led View*. Bethlehem, PA: Iacocca Institute, Lehigh University. <https://doi.org/10.21236/ADA257032>
- Dove, R., 1999. Knowledge management, response ability, and the agile enterprise. *Journal of Knowledge Management*, 3(1), pp. 18-35. <https://doi.org/10.1108/13673279910259367>
- Dove, R., 2001. *Response Ability: The Language, Structure, and Culture of Agile Enterprise*. New York, NY: John Wiley & Sons.
- Dove, R., 2005. Agile Enterprise Cornerstones: Knowledge, Values, and Response Ability. In: Baskerville, R. L., Mathiassen, L., Pries-Heje, J., DeGross, J. I., eds 2005. *Business Agility and Information Technology Diffusion*. TDIT 2005. IFIP International Federation for Information Processing, 180. Boston, MA: Springer. pp. 313-330. [https://doi.org/10.1007/0-387-25590-7\\_20](https://doi.org/10.1007/0-387-25590-7_20)
- Grădinaru, C. and Toma, S.-G., 2017a. The extended marketing mix: The case of Celler De Can Roca. *The Journal Contemporary Economy*, 2(3), pp. 219-227. [online] Available at: [http://www.revec.ro/images/images\\_site/categorii\\_articole/pdf\\_categorie\\_3896b0db999d7a62738f8f4d9d05a4b1.pdf#page=219](http://www.revec.ro/images/images_site/categorii_articole/pdf_categorie_3896b0db999d7a62738f8f4d9d05a4b1.pdf#page=219) [Accessed 28 May 2023].
- Grădinaru, C., Toma, S.-G. and Papuc, R., 2017b. Entrepreneurship in the world: The analysis of the Global Entrepreneurship Index in the period 2015-2017. *Ovidius University Annals: Economic Sciences Series*, XVII(2), pp. 14-18.
- Holbeche, L., 2015. *The Agile Organization: How to Build an Innovative, Sustainable and Resilient Business*. London: Kogan Page.
- Hooper, M. J., Steeple, D. and Winters, C. N., 2001. Costing customer value: an approach for the agile enterprise. *International Journal of Operations & Production Management*, 21(5/6), pp. 630-644. <https://doi.org/10.1108/01443570110390372>
- Imbrișcă, C. and Toma, S.-G., 2020. Social responsibility, a key dimension in developing a sustainable higher education institution: The case of students' motivation. *Amfiteatru Economic*, 22(54), pp. 447-461. <https://doi.org/10.24818/EA/2020/54/447>
- International Strategic Analysis (ISA), 2019. *The ten key economic trends of the 21st century*. ISA, [online] Available at: [https://www.isa-world.com/news/?tx\\_ttnews%5BbackPid%5D=1&tx\\_ttnews%5Btt\\_news%5D=479&cHash=8f222066d4c81fecfb27e5fc0e82c9fd](https://www.isa-world.com/news/?tx_ttnews%5BbackPid%5D=1&tx_ttnews%5Btt_news%5D=479&cHash=8f222066d4c81fecfb27e5fc0e82c9fd) [Accessed 26 May 2023].
- Krueger, A. O., 2006. *The World Economy at the Start of the 21st Century*. International Monetary Fund, 06.04.2006. [online] Available at: <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp040606> [Accessed 25 May 2023].

- Lipsey, G., R., 1999. Sources of continued long-run economic dynamism in the 21<sup>st</sup> century. In: Organisation for Economic Co-operation and Development (OECD), 1999. *The Future of the Global Economy: Towards a Long Boom?* Paris: OECD. pp.33-76.
- Marinescu, P. and Toma, S.-G., 2008. Implementing lean management in the Romanian industry. In: T. Koch, ed. 2008. *Lean Business Systems and Beyond*. New York: Springer, pp. 269-276. <https://doi.org/10.1007/978-0-387-77249-3>
- Marinescu, P. and Toma, S.-G., 2013. Training programs- Training and development alternatives for students. *Procedia Economics and Finance*, 6, pp. 306-312. [https://doi.org/10.1016/S2212-5671\(13\)00144-5](https://doi.org/10.1016/S2212-5671(13)00144-5)
- McGrath, J. and Bates, B., 2017. *The Little Book of Big Management Theories*. 2<sup>nd</sup> edition. Harlow: Pearson.
- Merriam-Webster, 2023. *Agile*. [online] Available at: <https://www.merriam-webster.com/dictionary/agile> [Accessed 30 May 2023].
- Moreira, M. E., 2017. *The Agile Enterprise: Building and Running Agile Organizations*. Winchester, MA: Apress. <https://doi.org/10.1007/978-1-4842-2391-8>.
- Pal, N. and Pantaleo, D. C., eds. 2005. *The Agile Enterprise: Reinventing your Organization for Success in an On-Demand World*. New York, NY: Springer. <https://doi.org/10.1007/b106720>
- Schwab, K., 2016. *The Fourth Industrial Revolution: What it means, how to respond*. World Economic Forum, 14.01.2016. [online] Available at: <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> [Accessed 29 May 2023].
- Shine, I., 2023. *IMF raises global growth forecasts for 2023 and other economy stories you need to read this week*. World Economic Forum, [online] Available at: <https://www.weforum.org/agenda/2023/02/imf-raises-growth-forecasts-for-2023-and-other-economy-stories-3-february/> [Accessed 01 June 2023].
- Siebel, T. M., 2019. *Digital Transformation: Survive and Thrive in an Era of Mass Extinction*. New York, NY: Rosetta Books.
- Siraudin, A. and Ainardi, M., 2023. *Combining strength and agility- Unleashing breakthrough innovation in complex product and system manufacture*. Arthur D. Little, [online] Available at: [https://www.adlittle.fr/sites/default/files/prism/ADL\\_PRISM\\_S1\\_2023\\_Combining%20strength.pdf](https://www.adlittle.fr/sites/default/files/prism/ADL_PRISM_S1_2023_Combining%20strength.pdf) [Accessed 30 May 2023].
- Stern, N. and Romani, M., 2023. *The global growth story of the 21<sup>st</sup> century: driven by investment and innovation in green technologies and artificial intelligence*. World Economic Forum, [online] Available at: <https://www.weforum.org/agenda/2023/01/global-growth-story-of-the-21st-century-lse-grantham-systemiq-davos2023/> [Accessed 01 June 2023].
- Ten Have, S., Ten Have, W., Stevens, F., Van der Elst, M. and Pol-Coyne, F., 2003. *Key Management Models: The Management Tools and Practices that Will Improve Your Business*. London: FT Prentice Hall.
- The Britannica Dictionary, 2023. *Agile*. [online] Available at: <https://www.britannica.com/dictionary/agile> [Accessed 30 May 2023].
- Tohănean, D., Toma, S.-G. and Dumitru, I., 2018. Organizational performance and digitalization in Industry 4.0. *Journal of Emerging Trends in Marketing and Management*, 1(1), pp. 282-293.
- Toma, S.-G., 2005. Fordism, postfordism and globalization. *Amfiteatru Economic*, 7(17), pp. 135-138.
- Toma, S.-G., 2008. What is Six Sigma? *Manager*, 8, pp. 152–155.
- Toma, S.-G. and Naruo, S., 2009. Quality assurance in the Japanese universities. *Amfiteatru Economic*, 11(26), pp. 574-584.
- Toma, S.-G., Marinescu, P. and Hudea, O.-S., 2010. From the tableau de bord to the balanced scorecard. *Revista Economică*, 4(51), pp. 280-285.
- Toma, S.-G., Stanciu, C. and Irimia, E., 2011. *Landmarks in the evolution of social responsibility of organizations in the twentieth century*. Proceedings of the 5th International Scientific Session Challenges of the Knowledge Society. Bucharest: PRO Universitaria Publishing House. pp.1352-1360. [online] Available at: <https://core.ac.uk/download/pdf/25886981.pdf> [Accessed 30 May 2023].
- Toma, S.-G., 2012. A pilot study on the relationships among organizational learning, change, and sustainability in a responsible Romanian higher education institution. *Amfiteatru Economic*, 14(32), pp. 420-435.
- Toma, S.-G., 2013. *Economia Întreprinderii [Enterprise economy]*. Bucharest: The Bucharest University Publishing House.
- Toma, S.-G. and Grădinaru, C., 2015. From military strategy to business strategy. *Strategii Manageriale*, 31(1), pp. 227-233.

- Toma, S.-G., Marinescu, P. and Constantin, I., 2016. *Approaches to strategic thinking in business organizations*. Proceedings of the 10th International Conference on Business Excellence, Academy of Economic Studies, Bucharest, Romania, pp.184-191. [online], Available at: [https://accord.edu.ro/course/material/energy-and-climate-change-289/pdf\\_content](https://accord.edu.ro/course/material/energy-and-climate-change-289/pdf_content) [Accessed 22 May 2022].
- Toma, S.-G. and Tohănean, D., 2018. Internet of Things, digitalization and the future of business models. *Strategii Manageriale*, 4(42), pp. 130-137.
- Toma, S.-G. and Tohănean, D., 2019. Green business models: The case of a German automaker. *Quality-Access to Success*, 20(S2), pp. 635-640.
- Van Assen, M., Van den Berg, G. and Pietersma, P, 2009. *Key Management Models: The 60+ Models Every Manager Needs to Know*. Harlow: FT Prentice Hall.
- Van den Berg, G. and Pietersma, P, 2015. *25 Need-to know Management Models*. Harlow: Pearson.
- Zainea, L. N., Toma, S.-G., Marinescu, P. and Chițimea, A., 2020. Combating unemployment through social entrepreneurship in the European context. *Business Ethics and Leadership*, 4(4), pp.85-98. [https://doi.org/10.21272/bel.4\(4\).85-98.2020](https://doi.org/10.21272/bel.4(4).85-98.2020)
- Waldoock, B., 2015. *Being Agile in Business: Discover Faster, Smarter, Leaner Ways to Work*. Harlow: Pearson.
- Wang, X., Lin, X. and Shao, B., 2022. How does artificial intelligence create business agility? Evidence from chatbots. *International Journal of Information Management*, 66, p. 102535. <https://doi.org/10.1016/j.ijinfomgt.2022.102535>