Agile Organisations – Features and Agility Enablers

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Abstract

Building organisations with a high degree of agility is becoming a more and more relevant and key issue as the dynamicity and unpredictability of the environment grow. A number of studies offer lists of characteristics outlining the profile of an agile organisation. The influence of numerous organisational resources and managerial practices for enhancing agility is focused upon by researchers as well. By reviewing and comparatively analysing the features of agile organisations as formulated by other researchers, the aim of this article is to outline the main features of agile organisations, as well as differentiate the markers of agility from the factors and practices which enable it. The role of knowledge in achieving agility is emphasised and centred around in the logical framework which describes the link between agility enablers and agility features. Thus, the necessity to acquire and develop knowledge and employ it in achieving agility justifies the choice of practices and resources pointed out in this article as key agility enablers.

Keywords: agile organisation, agility features, agility enabler, knowledge development

JEL code: L200, L250, M100

Introduction

The managers of modern organisations are faced with the challenge to continually change a number of elements in their work. Those changes can vary from strategic actions, such as entering new markets and/or satisfying changed customer requirements, through tactical decisions such as working with new partners, to current decisions such as changes in daily and weekly schedules. The dynamicity of changes in the environment requires equal dynamicity and change in organisations' actions. Thus, the search for stability and preserving the market position becomes equal to the search for flexibility, responsiveness, quick decision-making and timely implementation of said decisions. The concept of agile organisation emerged toward the end of the twentieth century, and has been the subject of an increasing number of organisational studies in the last two decades. Increasingly more conceptual and fewer empirical studies (Bottani 2010, Zhang & Sharifi 2000, Lu and Ramamurthy 2011) serve the purpose of formulating the features of agile organizations as well as the organizational resources, practices and tools which influence the achievement of agility. The aim of this article is, by reviewing the definitions of organizational agility and the features of agile organizations, to pinpoint those which are common in different researchers' work; then, on the basis of said key features, to formulate management practices, organisational resources and capabilities which enable the achievement of agility. The latter are to be outlined on the basis of both a review of past research formulating a list of agility enablers, and the author's own understanding, which is influenced by the models for organisational effectiveness and competitiveness known in the fields of organisation theory, organisation change theory, dynamic capabilities concept, etc.

1. Definitions of agility and the main features of agile organisations: literature review

In literature dealing with organisations, the definitions of organisation flexibility, adaptability, and responsiveness, are often included in the definitions of organisation agility. This demands a more careful consideration of the definitions of agility, as well as the formulation of specific features of agile organisations.

Research dealing with agile organisations pays first and foremost, and hence greatest attention to agile manufacturing. Gunasekaran (1999) defines it as "the capability of surviving and prospering in a competitive environment of continuous and unpredictable change by reacting quickly and effectively to changing markets, driven by customer-designed products and services".

Reviewing the stances of their predecessors in the study of organisational agility, Lu and Ramamurthy (2011) define it as "a firm-wide capability to deal with changes that often arise unexpectedly in business environments via rapid and innovative responses that exploit changes as opportunities to grow and prosper". A similar definition is given by Dove (2001), who relates organisational agility to "a firm's ability to cope with rapid, relentless, and uncertain changes in an environment where changes occur continually and unpredictably".

Felipe et al (2016) view organisational agility as a key dynamic capability and specify that it relates to "a firm's ability to enable sensing environmental changes and responding efficiently and effectively to them".

The definition given by Haq and Boddu (2015) points to the fact that agility involves multiple aspects of an organisation. The pair of researchers define it as "the business-wide capability embracing organizational structures, information systems and specifically, mindsets".

In the definitions quoted above, there can be found several common elements which outline the key features of agility, namely:

- Agility is a *firm-wide capability;*
- It concerns the capability to respond to an environmental change which is often *unpredictable*;
- The response must have certain features, namely – *rapid, efficient and effective response,* or, in other words – it must enable the organisation to survive, and moreover, to prosper.

Other authors' views confirm the above formulated features as defining for agile organisations. For instance, Linda Holbeche (2018) defines the concept of agile organisation by elaborating on the distinction between being agile and being flexible. She emphasises that "agility goes beyond being flexible" and that "a flexible business is able to make changes within the current organisational system when a predicted event occurs" whereas "agile businesses are able to change the overall system completely in response to an unpredictable external force".

Dove (2018) defines agility as "an effective response to opportunity and problem, within mission". Emphasising upon response effectiveness, he additionally defines the latter's attributes. According to him, an effective response is one that is: (a) timely – fast enough to deliver value, (2) affordable – at a cost that leaves room for an ROI, (3) predictable – can be counted on to meet expectations, and (4) comprehensive – anything within mission boundary.

By identifying two types of organisational agility, Lu and Ramamurthy (2011) contribute to a deeper understanding of agility. The pair of researchers conceptualise market capitalising agility and operational adjustment agility. *Market capitalising agility* refers to a firm's capability to quickly respond to and capitalise on changes by continuously monitoring and quickly improving its product/ service to address customer needs. As the authors comment, this agility emphasises a dynamic, aggressively change-embracing, and growth-oriented entrepreneurial mindset about strategic direction, decision-making, and judgement in uncertain conditions. *Operational adjustment agility* is defined by authors as a firm's ability to physically and rapidly cope with market or demand changes in its internal business processes. This agility highlights flexible and rapidly responding operations as a critical foundation for realising innovations. The authors point out that both types of agility entail a continual readiness for change, with the former focusing on entrepreneurial mindset and the latter emphasising speedy implementation.

Sharifi and Zhang (1999) are among the most cited authors as far as the description of agile attributes is concerned. They divide agile capabilities into four categories, namely (1) responsiveness, described by the authors as the ability to identify changes and respond quickly to them; (2) competency, which they view as the extensive set of abilities which provide productivity, efficiency, and effectiveness of activities towards the aims and goals of the company; (3) flexibility/ adaptability, which is the ability to process different products and achieve different objectives with the same facilities; and (4) quickness/ speed, which is the ability to carry out activity in the shortest possible

time. The description of the four categories of agile capabilities is presented in Table 1.

Table 1: Content of agile capabilities (as described by Sharifi and Zhang, 1999)

Agile capabilities	Defined by:
Responsiveness	● sensing, perceiving and anticipating changes; ● immediate reaction to change by effecting them into system; ● recovery from change.
Competency	● strategic vision; ● appropriate technology (hard and soft), or sufficient technological ability; ● products/services quality; ● cost effectiveness; ● high rate of new products introduction; ● change management; ● knowledgeable, competent, and empowered people; ● operations efficiency and effectiveness (leanness); ● cooperation (internal and external); ● integration.
Flexibility	● product volume flexibility; ● product model/configuration flexibility; ● organisation and organisational issues flexibility; ● people flexibility.
Quickness	● quick new products time to market; ● products and services delivery quickness and timeliness; ● fast operations time.

One of the defining features of agility mentioned above is the ability to respond to unpredictable changes. It is precisely the unpredictability of external changes that makes achieving agility a great challenge. This logically points to the conclusion that, in order to make use of the rest of an organisation's agile capabilities, there needs to be above all a capability to sense the change, realise the necessity for change, and, what is more, a willingness to change and accepting said change as an essential and a part of daily practice. Only when there is a determination for change can the capabilities related to implementing said change be activated. Going back to the list of capabilities formulated by Sharifi and Zhang, it is clear to see that although the criterion for classification they use is not chronological order, the first item on this list is precisely "sensing, perceiving and anticipating changes".

A change-favourable mindset is to be treated as a prerequisite for its realisation. Only when this prerequisite is there can organisations make use of the rest of their agile capabilities, as far as such are available. The role and meaning of mindset are emphasised by some authors as early as within their definitions of agility. Haq and Boddu (2015) put special emphasis on this meaning by defining agility as "business-wide capability embracing organisational structures, information systems and *specifically, mindsets* [emphasis added – V. M.]"

R. Dove (2001) makes a definite connection between agility and the capability of change by postulating that "being agile means being proficient at change". Also relating agility with proficiency at change, Worley & Lawler (2010) define it as follows: "Agility is a dynamic organisation design capability that can sense the need for change from both internal and external sources, carry out those changes routinely, and sustain above-average performance". This last definition focuses, among other features of agile organisations, on change capabilities as relating both to sensing the need for change and to implementing said change. What is more, implementing change is considered a routine activity. Making change routine does make organisations, in Dove's words, "proficient at change".

2. **Agility enablers**

After realising the necessity for change, organisations need to have capabilities to implement it. More than that, they must own the tools which enable them to change continuously, or in Worley & Lawler's (2010) words quoted above, "to carry out changes routinely". Different researchers focus their attention on different organisation resources and practices, justifying conceptually and/ or empirically their role in achieving agility.

The role of organisation design in building up agile capabilities is among those which are most often focused on. For instance, Worley & Lawler (2006) insist that " the effectiveness of change efforts is largely determined by organisational design" and single out design attributes which are to be reconsidered in order for the organisations to transform themselves into organisations "built for change". The authors point out these basic design assumptions with respect to managing talent, reward systems, structure, information and decision processes, and leadership style.

Emphasising that "agility is the business-wide capability embracing organisational structures, information systems and specifically, mindsets", Haq, A.N. and Boddu, V. (2015) also direct attention towards the elements of organisation design which enable agility.

The significance of structures which enable empowerment, a learning mindset, underlying lean processes, mechanisms that help build connectivity and networks across and beyond the organisation (all of which are features of organisation design) is also emphasized by Linda Holbeche (2018) when she speaks of the necessity for companies to be agile.

In their article *Agility: It Rhymes with Stability*, Aghina, W., A. De Smet & K. Weerda (2016) also focus on the role of organisation design in making an organisation agile. They describe the role of what they call a "stable backbone" built through the appropriate structure, governance and process, in achieving organisational agility.

Along with the features of the agile workforce, Sherehiy, B., Karwowski, W., & Layer, J. K. (2007) make a list of features of agile organisation design, which include authority, rules and procedures, coordination mechanisms, type of structure, HR management practices. Table 2 summarises design features which, according to some of the authors cited above, increase an organisation's agility.

Table 2: Features of organisation design which increase agility

Authors	Research focus	List of design features
Sherehiy, B., Karwowski, W., & Layer, J. K. (2007)	Organic design – going by the theses of contingency approach, organic design is described as "more innovative, flexible, and more capable of adapting to change, thus it is appropriate for an unstable and continuously changing environment"	● Less adherence to authority and control ● Network communication ● Decentralised knowledge and control ● Loyalty and commitment to project or group ● High degree of flexibility and discretion ● Informal and personal coordination ● Few rules and procedures ● Shared tasks ● Employee contribution to a common tasks
Christopher Worley & Edward E. Lawler (2010)	Agile organization designs features	● maximum surface area structures ● transparent information and decision making processes ● flexible talent management and reward systems ● shared leadership
Aghina, W., A. De Smet & K. Weerda (2016)	Agile organization features – they either characterise design or are its direct consequence	● Quick to mobilize ● Nimble ● Collaborative ● Easy to get things done ● Responsive ● Free flow of information ● Quick decision-making ● Empowered to act ● Resilient ● Learning from failure

In their model for implementing agility (Fig. 1), Zhang, Z. and Sharifi, H. (2000) offer a complex of four groups of enablers (which they call "agility providers"). They see providers as means by which agility capabilities can be obtained. According to the pair of researchers, these providers are to be sought from four major areas of the manufacturing environment, i.e. organisation, people, technology, and innovation. It is also suggested that the providers need to be fully integrated with the support of information systems/ technology. Information and the information system are precisely what the authors give the specific task of ensuring an environment which links people, organisation, technology and innovation.

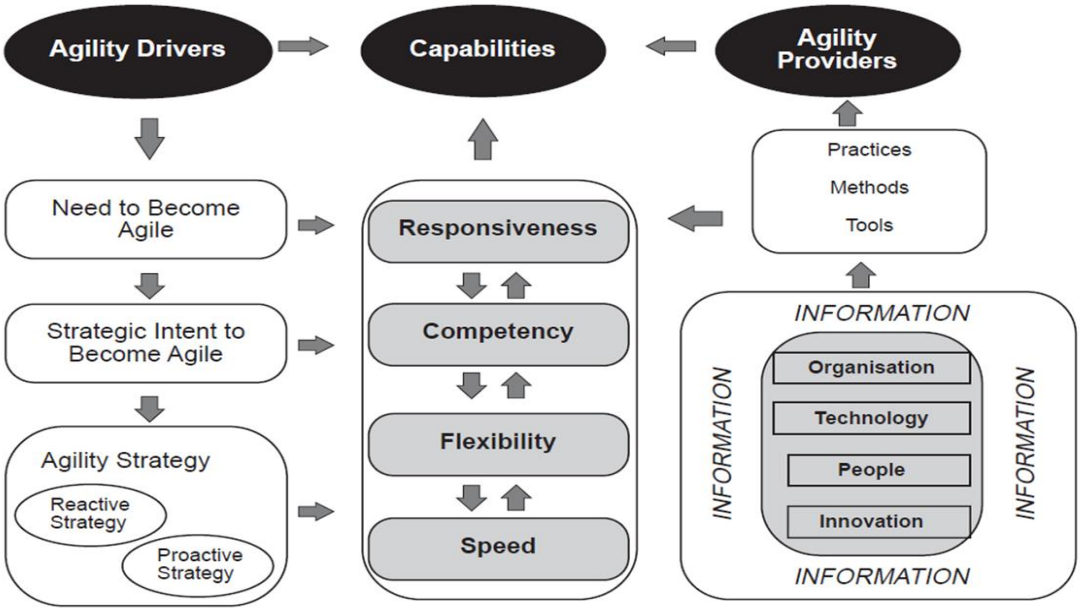

Figure 1. A conceptual model for implementing agility (Sharifi & Zhang, 2000)

The influence of *information* technologies on achieving agility is the specific object of study for a number of researchers. Ying Lu and K. Ramamurthy (2011) report as a result of their study a significant positive relationship between IT capability and the two types of organizational agility-market capitalising agility and operational adjustment agility. Fellipe et al. (2016) also dedicate their study to the influence of information system capabilities as an antecedent of organizational agility. Kidd & Henbury (2018) also insist on the influence of deploying advanced information along with the development of highly nimble organisational structures and their significance in supporting highly skilled, knowledgeable and empowered people in the creation of agile organisations.

An empirical study by Bottani (2010) reaffirms the importance of most tools, resources and practices pointed out by Sharifi & Zhang (2000) as agility providers in their model for implementing agility. Also reaffirmed is the role of information which was found to be related to workforce skill and competency enhancement, and employee satisfaction, which, for their part, enable agility. Attempting to identify which resources and practices influence organizational agility, Bottani (2010) expands on earlier studies and puts to the test the list of 32 characteristics divided into 8 groups, which was suggested by Yusuf, Sarhadi and Gunasekaran (1999). Her aim is to determine to what extent these characteristics constitute agility enablers, or, in other words, can explain the variances in agility among organizations studied by her. She reaches the conclusion that two of the groups explain about one third of the differences, i.e. they can be viewed as most influential over organizational agility. The first group contains characteristics which mainly refer to *employees' role and competency* in the company, namely continuous training and development, workforce skill enhancement, multi-skilled and flexible people, employees satisfaction, which were found to be related to information accessible to employees. The second group consists of characteristics which emphasise topics related to *the*

technology, such as leadership in the use of current technology, technology awareness, skills and knowledge enhancing technologies. *Trust-based relationship with customers/suppliers, concurrent execution of activities, customer-driven innovations and culture of change* are also among those characteristics which play a central role in defining the profile of agile companies (given the high load >0.7 on the component) according to Bottani's study.

3. **Knowledge and its mediating role in achieving organisational agility**

The literature review in the preceding section outlines key agility enablers reaffirmed by numerous studies. They assign information, the information system, and its support by advanced information technologies an integrating role in relation to other elements. In reviewing the relationship between information system capabilities and organisational agility, however, Felipe, Roldán and Leal-Rodríguez (2016) also study the influence of a non-technological variable, namely absorptive capacity, and through it, that of organisational learning as a mediating construct between information system capabilities and organisational agility. Absorptive capacity is defined as "a set of organisational routines and processes through which firms *acquire, assimilate, transform and exploit knowledge* in order to produce a dynamic organizational capability" (Felipe et al, 2016).

Also placing the main focus on the importance of knowledge acquisition and implementation for achieving agility is Rick Dove in his book Response Ability: The Language, Structure, and Culture of the Agile Organisation. In it, he describes agility as "deriving from both the physical ability to act (*response ability*) and the intellectual ability to find appropriate things to act upon (*knowledge management*)" and defines it as "the ability to manage and apply knowledge effectively, providing the potential for an organisation to thrive in a continuously changing, unpredictable business environment" (Dove, 2001). This definition also contains Dove's hypothesis regarding knowledge, namely that no knowledge has any value until it is implemented in practice. It is precisely knowledge and its implementation that make changes, innovations and improvements possible.

The carriers of knowledge are the people within the organisation. The results of Bottani's study highlight the significance of people (employees' role and competency) in achieving agility; in Sharifi & Zhang's 2000 model shown above, too, people are one of the four agility enablers. Kidd (1994) suggests that agility can be achieved not only through the integration of organisation and advanced technologies, but also through *highly skilled and knowledgeable people*. The importance of agile workforce is also highlighted by Bran (2017), as well as Sherehiy, Karwowski & Layer (2007). Dove (2001) describes "adaptable people" as knowledgeable people, and ascribes this quality of theirs to them being "genuinely curious and committed learners, and [...] have a culture of communication, collaboration, and knowledge sharing".

In posing knowledge as a central necessity for achieving agility, the primary question which emerges is: "How can knowledge acquisition and development be fostered, and which organisational attributes and managerial practices will enable and benefit its effective implementation?"

4. **Results and discussion: formulating a logical framework describing the link between agility enablers and agility features**

As commented above, agile organisations are those which have the capability to change continuously and which make those changes effectively – within the required time, within the appropriate scope of changes, and preserving or improving their performance as a result. As Dove (2001) postulates, "changing anything requires that somebody learn something, and that this learning process is every bit as big an obstacle as rigid inflexible system design". The hypothesis that an organisation's ability to change depends on knowledge has been confirmed in other studies as well. As has been pointed out in previous sections of this article, agility is strongly influenced by the features of organisation design. R. Dove's statement confirms that organisation agility depends both on processes of learning and knowledge acquisition and on organisation design; it also emphasises something else – the learning process will be more/ less effective (create more/ less knowledge)

depending on whether organisation design[1] benefits or, on the contrary, deters this learning process. It is important for change implementation both whether the necessary knowledge is available, and whether its application is supported; thus, decisions for organisational design must be made which, *firstly*, will enable and foster knowledge acquisition and, *secondly*, will make its application possible.

These considerations serve as a guide in making the decision on which agility enablers should be treated as key and as such should be included in the conceptual framework for achieving agility. Of course, this decision is also influenced by the findings of the researchers discussed above.

Thus, the conceptual framework must include the following design elements:

- Structure – such that enables quicker communication within organisations (which benefits knowledge sharing) and, as Worley & Lawler point out, ensures maximum surface area. The latter, for its part, makes it possible for more employees to have direct contact with external audiences, and as such aids the acquisition of knowledge about the environment. When the structure is less hierarchical and enables the empowerment of more people within the organisation, it facilitates quicker decision-making, thus aiding knowledge application. A more frequent use of multidisciplinary teams in which everyone contributes to common tasks, is essential for knowledge sharing and consequently for its firm-wide enhancement.
- IT- infrastructure, which enables information to be spread more quickly; this, along with an empowering structure, allows more people within the organisation to make more appropriate and timely decisions and to implement the acquired knowledge. Transparent information also contributes to a more regular reconsideration of goals and tasks, and to the creation of a knowledge-sharing culture which is especially significant for knowledge enhancement.
- Reward system – such that, instead of rewarding moving up the hierarchy and amount of work done, rewards personal development, learning and the acquisition of new skills which will make change implementation possible. Rewarding for contribution to the realisation of projects stimulates employees to acquire new skills through learning as well as to participate in projects, which contributes to knowledge sharing and enhancement.
- People – with their mind- and skill sets, they are the carriers of existing knowledge, as well as the creators and receivers of new knowledge. Their mindsets influence both knowledge sharing and the readiness for knowledge implementation. The remaining elements, such as structure, reward system, communication and information system, are meant to modify those mindsets in case they do not contribute to change implementation.
- Culture of change – change implementation largely depends on the manner in which the need for change is perceived. If within the organisation the view is shared that changes bring opportunity, that they lead to development, and not that they create obstacles, then the willingness to acquire new knowledge, which is necessary for those changes, is more likely. The carriers of this culture are the individual people within the organisation, but only its sharing as a common value could produce a synergic effect and set in motion a change in the organisation.
- Relationship with outside partners – building up a collaborative relationship with customers increases the possibility to know in time about any changes in their expectations, demands and attitudes to the offered product. Special attention should also be given to suppliers and business partners, since the changes the organisation implements would also depend on the changes they intend and are able to implement. Collaborating on the implementation of planned changes would generate new knowledge.

[1] It includes variables describing what is known as "organisational hardware" as a structure, control systems, reward system, technology, etc., as well as variables such as leadership style and relationship, shared values, skills, people forming the mindset and skill complex in the organisation, managerial philosophy, organisation climate, culture, etc., describing what is known as "organisational software" – see more on the elements of organisation design in Maximova, V. (2020)

The influence of the elements discussed above on knowledge acquisition, which in turn builds up the environment required for change implementation, is presented in Fig. 2.

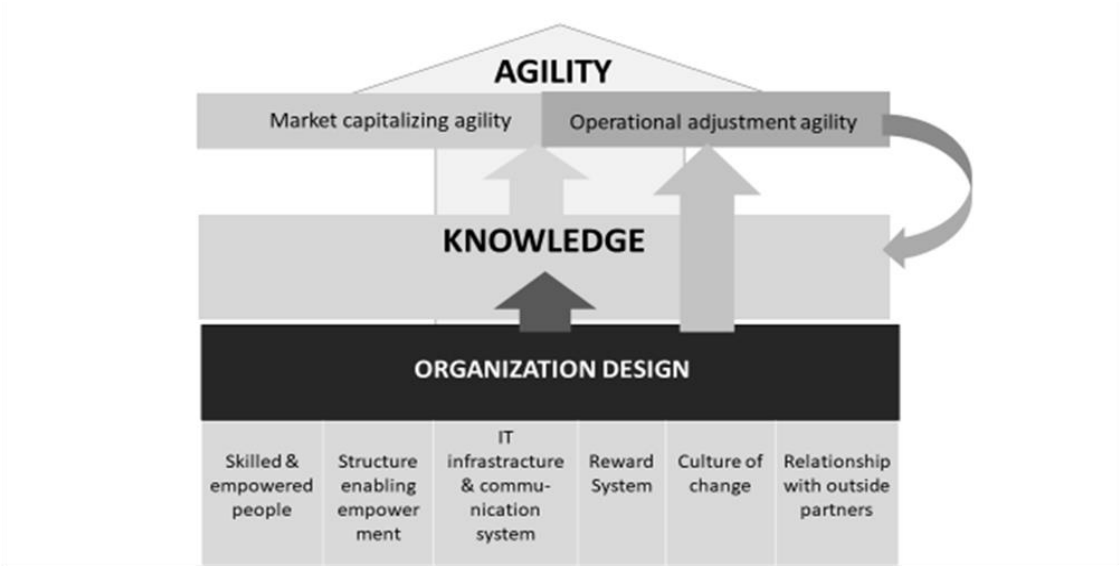

Figure 2. A conceptual framework of agility enablers

The inclusion of both types of agility (as defined by Lu and Ramamurthy, 2011) in the framework points to the necessity for knowledge of both external changes – in order to decide *what innovation* to implement so as to satisfy customer expectations (regarding market capitalising agility), and of *how* to make the change in a way that it is timely, affordable and efficient (regarding operational adjustment agility).

The framework entails two additional assumptions:

1) Knowledge and change implementation are viewed as co-dependent. As argued above, knowledge is a key factor for change implementation. In turn, change increases organisation members' experience, pushes for knowledge sharing among them, stimulates new skill acquisition and, as a result, generates new knowledge which is to be useful for a future change.
2) The inclusion of design elements in the conceptual framework is justified by their influence on knowledge generation, enhancement and application. Thus, mediated by knowledge, they influence the implementation of changes, and as such organisational agility. It is furthermore assumed that some design elements could influence organisational agility both directly and indirectly.

Conclusion

The conceptual framework presented in this article is formulated on the basis of both organisation agility researchers' hypotheses and empirical findings, and assumptions which should be subject to future empirical testing. It adds onto the understanding of the relation between agility enablers and agility features, which allows researchers to use it as a framework for further empirical testing of the significance of the factors defined in the present paper. Such a logical construct can also be used as a framework for diagnosing the ability of an organisation to cope with uncertainties and to conduct necessary changes. Being aware of which the enablers of agility are, managers can implement those in their organisations as they strive for better performance in an uncertain environment.

References

1. Aghina, De Smet & Weerda (2016) Agility: It rhymes with stability. In *McKinsey On Organization: Agility and organization desigh*, May 2016, McKinsey & Company
2. Bottani, E. (2010). Profile and enablers of agile companies: An empirical investigation. *International Journal of Production Economics*, vol. 125, pp. 251–261
3. Bran, C. et al. (2017), The impact of agile approach of organizations on management flexibility. *Management in the Innovation Society*. Bucharest, Niculescu Publishing House, 8, pp. 335 - 344.
4. Dove, R. (2001). *Response Ability: The Language, Structure, and Culture of the Agile Enterprise*, New York: John Wiley & Sons.
5. Dove, R. (2018) Agile Systems and Processes – Driving Architecture with ConOps and Response Situation Analysis, webinar, Available from http://www.parshift.com/s/AgileSystems-102.pdf [Accessed 20/09/2021].
6. Felipe, C.M. et al. (2016), An explanatory and predictive model for organizational agility, *Journal of Business Research*, 69, pp. 4624–4631
7. Gunasekaran, A. (1999). Agile manufacturing: a framework for research and development. *International Journal of Production Economics* 62, pp. 87–105.
8. Haq, A.N. and Boddu, V. (2015). Analysis of agile supply chain enablers for Indian food processing industries using analytical hierarchy process. *Int. J. Manufacturing Technology and Management*, Vol. 29, Nos. 1/2, pp. 30–47.
9. Holbeche, L. (2018), Agility and flexibility aren't the same, *HR Magazine*, 15.08.2018, Available from: https://www.hrmagazine.co.uk/content/features/agility-and-flexibility-aren-t-the-same [Accessed 03/10/2021]
10. Kidd, P.T. & Ch. Henbury (2018), Agile manufacturing: key issues, Available from: http://www.cheshirehenbury.com/agility/agile-manufacturing-key-issues.html [Accessed 19/10/2021].
11. Kidd, P.T. (1994). *Agile Manufacturing – Forging New Frontiers*. Addison- Wesley, Wokingham
12. Lin, C.-T. et al (2006), Agility evaluation using fuzzy logic, *Int. J. Production Economics* 101, pp. 353–368 DOI: 10.1016/j.ijpe.2005.01.011
13. Lu, Y. and K. Ramamurthy (2011), Understanding the Link Between Information Technology Capability and Organizational Agility: An Empirical Examination. *MIS Quarterly*, vol. 35, No. 4 (December 2011), pp. 931-954
14. Maximova, V. (2020) Organisation Design and Adaptability of the Organisation. *Izvestia Journal of the Union of Scientists* - Varna. Economic Sciences Series, Varna: Union of Scientists - Varna, 9, №3, pp. 106 - 116
15. Sharifi, H., & Zhang, Z. (1999). A methodology for achieving agility in manufacturing organisations: an introduction. *International Journal of Production Economics*, 62 (1–2), pp. 7–22.
16. Sherehiy, B., Karwowski, W., & Layer, J. K. (2007). A review of enterprise agility: Concepts, frameworks, and attributes. *International Journal of Industrial Ergonomics, 37,* 445–460
17. Worley, Ch. & E. Lawler (2006), Designing organizations that are built to change. *MIT Sloan Management Review* 48(1), pp.19-23
18. Worley, Ch. & E. Lawler (2010), Agility and Organization Design: A Diagnostic Framework. *Organizational Dynamics*, 39(2), pp. 194-204
19. Yusuf, Y., Sarhadi, M. and Gunasekaran, A. (1999). Agile manufacturing: the drivers, concepts and attributes. *International Journal of Production Economics*, 62 (1), pp. 33–43
20. Zhang, Z. and Sharifi, H. (2000). A methodology for achieving agility in manufacturing organisations. *International Journal of Operations & Production Management*, 20 (4), pp. 496-512.