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*Managerial Determinants in Design Management as a Means
of Developing Organisational Resilience in an Uncertain
Economic Environment*

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Abstract

Theoretical background: Design management is of paramount relevance in many modern organisations, increasingly also in those operating in Poland, remaining an independent approach to change management for the creation of new products and services, achieving better productivity and efficiency in a global and competitive environment. Until now, the basis of design management processes has been to understand the needs of the user or customer, their expectations and aspirations. This approach, like many management concepts, is now undergoing a transformation, driven by huge economic, social, political and environmental

changes. The uncertainty of tomorrow, facing crises, wars, erupting pandemics are just some of the so-called Black Swans causing the need for management change in organisations. Nowadays, design management is experiencing a boom, which is primarily linked to a shift away from seeing it only on an operational level or as a marketing function to emphasising its strategic importance. In this situation, the concept of “just in time”, familiar from management by quality, should evolve into “just in case” in a much broader reference than that relating to the production, delivery or storage of raw materials and finished goods. The design management model presented in the article is an example of an activity that responds to the needs of companies precisely in conditions of variability, due to the fact that its essence is flexibility and the possibility of redesigning it by adding or subtracting specific constructs, appropriate to the just in case situation.

Purpose of the article: This article aims to present how managerial conditions conducive to the implementation of design management activities can support companies in achieving organisational resilience in a world defined by the acronym “BANI”.

Research methods: The research problem is to identify managerial determinants conducive to the implementation of design management activities through which companies can achieve organisational resilience. In order to obtain an answer to the research problem so posed, a literature review of design management approaches was conducted, with a presentation of the traditional Danish Design Ladder model and its updated version, adapted to the BANI concept. Based on the literature, the acronyms “VUCA” and “BANI”, used to describe current economic phenomena, were explained. The article then presents some of the results of a survey conducted in 2019–2020, in companies registered in Poland. Quantitative estimation using the CATI method (1,200 medium and large enterprises) and qualitative verification using PAPI and IDI techniques (58 large enterprises with a high level of project maturity and experience in implementing project management) were used.

Main findings: The paper presents design management as a type of organisational activity important for achieving organisational resilience. The essence of design management, its two models and the management conditions necessary to implement this approach were described. The role of managers in implementing change in an organisation is characterised. The above considerations are based on a literature review and own research.

Introduction

The current times, until recently, were referred to as “VUCA times” (Bennet & Lemoine, 2014, pp. 1–7). This acronym is an acronym for four words, i.e. “volatility”, “uncertainty”, “complexity” and “ambiguity”. This concept has dominated the business world for the past 20 years and has often helped to make sense of global events that are changing the economic, social and worldview order of the world. The term “VUCA” has also been used to refer to the genesis and first effects of a pandemic situation.

Nowadays, however, the concept of VUCA is becoming increasingly outdated, mainly due to the speed of global change and the fact that it highlights the difficulty of making good decisions in a paradigm of frequent, difficult to predict and often confusing changes. Post-pandemic changes are faster than those implemented a few years ago, and they are global in scope. They affect the economy as well as public sentiment. Complexity is the combination of many phenomena and information. Big data, i.e. large, diverse and variable databases, gives access to knowledge that humans, however, cannot process and assimilate. Ambiguity informs the idea that explaining the world from the perspective of reason and logic alone is not

enough, and that building on previous experience does not translate into effective planning. VUCA loses its relevance because, despite its universality, it is not sufficiently useful.

As a counterpoint to the VUCA concept, Cascio proposed a new model – BANI – which is an acronym for Brittle, Anxious, Non-linear and Incomprehensible (Kraaijenbrink, 2022). In his view, the VUCA framework does not help in understanding what will happen in the near future. “Situations in which conditions aren’t simply unstable, they’re chaotic. In which outcomes aren’t simply hard to foresee, they’re completely unpredictable. Or, to use the particular language of these frameworks, situations where what happens isn’t simply ambiguous, it’s incomprehensible”, Cascio said at the Institute of The Future (ITF) event (Prasad, 2022).

Not only has VUCA been overused and thus lost its relevance, it has also ceased to provide useful insights into the fundamental question: How to deal sensibly with current circumstances? How to implement change in such a turbulent and uncertain world? The VUCA framework is no longer sufficient to make sense of it or to identify potential future scenarios. In other words: the post-pandemic, faced with war in Ukraine, global crises and environmental disasters world in 2022 is no longer a VUCA environment. It has evolved, it has changed, and, thus, requires a new terminology, a new language to help explain this changed world in not only global but also local terms.

Recent years have shown that the rules governing the world are fragile, dependent on context, influence and, above all, interests. What was volatile in the VUCA world is no longer credible. It became brittle. Companies built on fragile foundations are going bankrupt, a virus may suddenly appear that causes a global lockdown, the ongoing war in Ukraine may have not only political, but also economic, social and ecological consequences (risk of failure of the Zaporizhzhia nuclear power plant as a result of its bombing), due to climate change there is talk of a mass migration of people to Europe by 2050, and with winter approaching, another lockdown may occur due to the lack of heating raw materials. Everything is interconnected and if one element fails, the ripple effect could be catastrophic for the whole system. Seemingly solid foundations easily crumble because they lack resilience. Sometimes a single, overlooked point of weakness within a system can cause the whole system to collapse. In this context, labour, which has been synonymous with security for many decades, ceases to provide such security.

With the VUCA framework, the world is full of uncertainties that generate great anxiety and a constant sense of powerlessness. People, as a result of uncertainty, are anxious. An anxious world is the one in which we keep hitting refresh to update the news and see what the next disaster will be. This is a characteristic anxiety that can be represented by another acronym – FOMO, which refers to “Fear Of Missing Out”. One example of this is the constant need many feel to stay up to date on social media in real time, throughout the day. Anxiety is one of the most present stressors today, not only in people's personal lives, but also in business. Decisions are made

quickly, as every second lost seems to leave people behind. In the context of BANI World, the difference between success and failure is the ability to react quickly to change.

Things are no longer complex as the VUCA framework said, instead they obey non-linear logical systems. They are a consequence of complexity. The current world is full of unconnected events and, in the context of their materiality, disproportionate. An effect can be disproportionate to the cause that generated it, and, therefore, much larger or smaller than expected. Moreover, the effect may amplify the cause that generated it in a circular fashion, the links within the process may not be clear and it may be impossible to identify a clear beginning and a clear end. It becomes increasingly difficult to find a link between cause and effect. A good example of non-linearity is the COVID-19 case curve flattening concept, which is inherently a struggle with non-linearity. In this non-linear world, creating structured organisations without a well-defined and standardised structure is not possible. It is difficult to plan strategically, as it is well known that good planning must be tailored exactly to the circumstances.

According to Cascio's conception, the inability to understand a particular situation, or even to consider it impossible to explain, can be the trigger for the most necessary activity today – taking a step towards change. What was ambiguous in the VUCA world is simply incomprehensible today. Everything is happening so fast that we seem to understand less and less. We usually try to overcome this problem by increasing the amount of data available, but this can be counterproductive; the more we try to understand an incomprehensible situation, the more we feel overwhelmed. It is not possible to control everything and everyone.

In summary, the BANI concept is intended to provide a new language to describe and understand what is happening. It is meant to be a basis for building and developing new approaches. At an organisational level, it can be an excellent tool to support (mentally) the design management approach.

Design management as a way to manage change in BANI World – literature review

Design management is an approach to managing change – its entire process (including the need to anticipate its effects: social, business, ecological, cultural, etc.) – and it is an approach that can be used in a variety of ways. According to Brown's (2009) original definition, change by design is a method of revising assumptions, and, therefore, openness to change.

According to the author (Dziadkiewicz, 2021), it is the comprehensive planning, organising, motivating and controlling of a company's activities, from styling, through managing the organisation's improvement processes in order to create solutions to problems that have arisen, to using design as an element of the company's strate-

gy. Dziadkiewicz (2021) considers this to be a holistic approach to the comprehensive management of an enterprise, which is aimed at building a sustainable competitive advantage through the use of design at all levels of its operational, tactical and strategic functioning. At the level of strategy (operating philosophy), it is a habit of continuous optimisation – also in a non-business context (sustainability, social, equality, ethical aspects). It is also about changing habits, a certain evolution and education, striving for organisational excellence, which is not given once and for all and permanent.

Design management is, therefore, the managing of the design process in an organisation, which has both a managerial and a design function (Dziadkiewicz, 2017, pp. 69–81).

The managerial function is to combine design and business, with a creative approach (Levy, 2015). According to the authors, it is not easy, due to the fact that organisations are used to integrating logical and rational thinking. The aim here is to make the use of design more effective by linking it to economic words such as “product”, “brand”, “customer value”, “organisational identity”, “communication”, “innovation management” or “strategic management”. This function also has an educational dimension.

The design function talks about using design as an inspiration to implement changes in the management of the organisation. The aim of this direction is to use visual aspects and attitudes, openness to lateral thinking, creativity to increase the effectiveness of the organisation.

Cooper et al. (2009, pp. 46–55) see the approach as “an ongoing process of management and leadership – in the design of organisations, processes and outcomes, including products, services, communication, environment and interactions”. One can see the connotations here with the pursuit of organisational excellence.

The design management approach, as can be seen, is by no means synonymous with innovation – as some researchers suggest (Kootstra & Vink, 2007) but is an accelerator of innovation in the company, precisely through openness to change (Dickson et al., 1995, pp. 406–415; Verganti, 2006, pp. 1–9; Brown, 2008, pp. 1–10; EU Commission Staff Working Document, 2009, pp. 1–69). Recognising the value of design to an organisation, its ability to differentiate, position on the market and improve the functionality of internal processes, as well as its impact on the external perception of the organisation by the environment, it should be seen as a strategic resource subject to constant change. These changes should occur in four key types of innovation, referred to as the “4Ps of innovation”, namely “product”, “process”, “positioning” and “paradigm” (Tidd & Bessant, 2014, pp. 171–183).

Topalian (1990, pp. 39–62) noted that, from an internal organisational perspective, this approach affects the corporate and design levels. This author indicates that the development of design management in an organisation is possible when:

- the design team will continually expand its knowledge of organisational redesign, resulting in a competitive advantage,

- the scope of the projects developed will be continuously expanded,
- the problems of the organisation that need to be solved are identifiable.

It is well known that organisational problems are often not easy to identify (in the world of BANI – that is misunderstanding). This is because, in practice, there are sudden, unpredictable phenomena that have an external cause, yet significantly affect the organisation's performance. These are the so-called Black Swans, about which Taleb (2020) wrote extensively. In design thinking, from which design management draws its tools, the so-called wicked problems appear, i.e. problems that cannot be formulated precisely, do not have good or bad solutions (only better or worse ones), moreover, they do not have one proper solution, and most often these solutions are multiple (Horst et al., 1973, pp. 155–169; Camillus, 2008). Wicked problems occur in many areas – from those related to the internal structure of an organisation, to communication, to finding solutions for customers.

Towards a transformation of the Danish Design Ladder model

One of the most popular models illustrating how companies use and perceive design is the Danish Design Ladder (Figure 1), developed in 2001 by the Danish Design Center (Melander, 2015; Best et al., 2010, pp. 26–35; Bucolo & Matthews, 2011; Dziadkiewicz, 2021; Doherty et al., 2015, pp. 60–82). The individual steps of the model indicate that design cannot be associated only with the design of material goods but can occur as a process of improving the organisation, leading to an understanding of design beyond aesthetics as part of a company's market strategy.

From an economic point of view, The Design Ladder is based on the assumption that there is a relationship between revenue and the use of design in a company. The higher a company is positioned on the ladder, the higher profits it can expect – incidentally, this was the conclusion of a research paper based on the Danish Design Ladder, published in 2003 by Kretzschmar (2003). Things have changed since then. The 2001 model proved to be inadequate for BANI's time. It turned out that logical explanations of phenomena, using visions instead of detailed plans, obtaining information from the environment, simplifying management systems or being agile do not provide answers to how to cope in turbulent, uncertain, non-linear and turbulent times, in which some phenomena, despite enormous access to knowledge, cannot be explained.

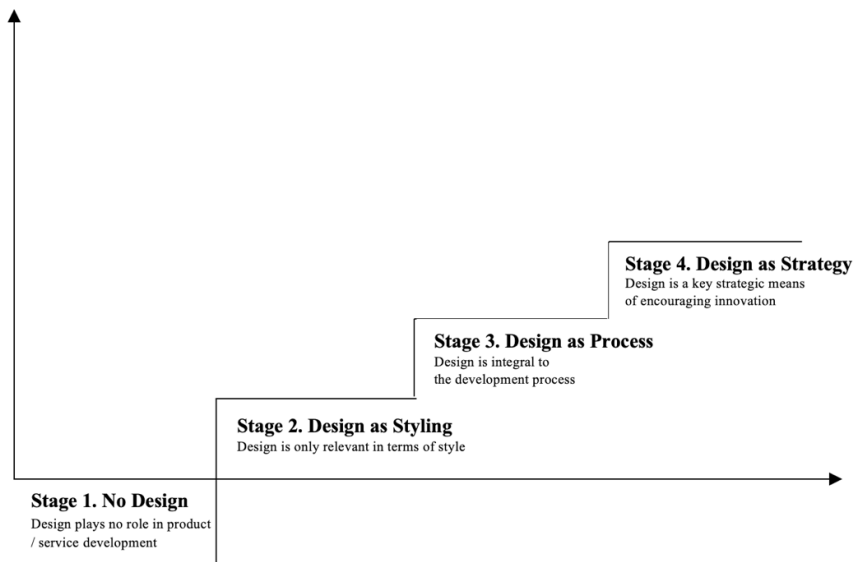


Figure 1. Danish Design Ladder

Source: (*The Economic Effects of Design*, 2003; *Design Creates Value*, 2007).

Back in 2016, so even before the COVID-19 pandemic broke out, an article by Bryan Hoedemaeckers, a director at Deloitte in Australia, entitled “Are you Getting the Most Out of Design?” appeared on Medium. In it, Hoedemaeckers called for two additional rungs of the ladder to be added to the Danish Design Ladder: “Systematic Change” and “Culture”.

In the case of the additional step “Systematic Change”, the most important thing is to approach the systematic implementation of change in the organisation. To this end, tools such as roadmaps and diagrams can be used to powerfully indicate the company’s state-of-play and development directions (new or revised strategic goals and strategic options with their analysis and evaluation) and developed action plans, budget and strategic controlling. At this level, the company understands and values elements such as “change management”, “leadership” and “storytelling” in the strategy implementation process. Focus studies are used to check and monitor the progress of change, and each phase of change is thought through and “designed”.

Companies that are at this stage of the Ladder of Design have the potential to use design to solve complex social or industry problems or improve complex ecosystems. Often, a company that is at this stage of the Design Ladder is a member of an association, cluster or organisation that brings together actors working to solve a social, economic or environmental problem.

Level six “Culture” is what is today considered the pinnacle of the use of design in business. Companies that have reached this level use design to build and leverage

organisational culture. They are changing the way people in their organisation think to align with the designer's way of thinking, people are starting to innovate, act like entrepreneurs, embrace ambiguity (according to BANI's world – non-linearity), listen to the voice of the customer and lead their field through design. Design as a culture is used to create desired behaviours in employees through training, life-long learning, their development and creating experiences, in order to align the organisation around a core purpose. Design is embedded at every stage and there is room for innovation, ideas and guidance through customer-centred brand thinking (Davies, 2019). Any organisation that employs designers to inspire, identify challenges, catalyse and mentally stimulate its incumbent workforce should be at this level.

Another attempt to extend the Design ladder was made by Sam Bucolo in 2016. He suggested adding the rungs "Organisational Transformation" and "National Competitive Strategy" (Pettigrew et al., 2016). The first refers to the redesign of the entire organisational structure and business model of the organisation, which consequently incurs huge costs and, in times of generating savings, seems an extremely risky move. The second tier (the highest) refers to the role of design in transforming entire sectors to ensure the nation's prosperity. Here again, recent years have shown that only in supranational unity and mutual solidarity between states is there strength. Limiting oneself, therefore, only to national issues even has the hallmarks of short-sightedness and closing oneself off to the potential that lies in cross-border communities. It would, therefore, appear that the Hoedemaeckers model (Figure 2) is more suited to the current economic conditions.

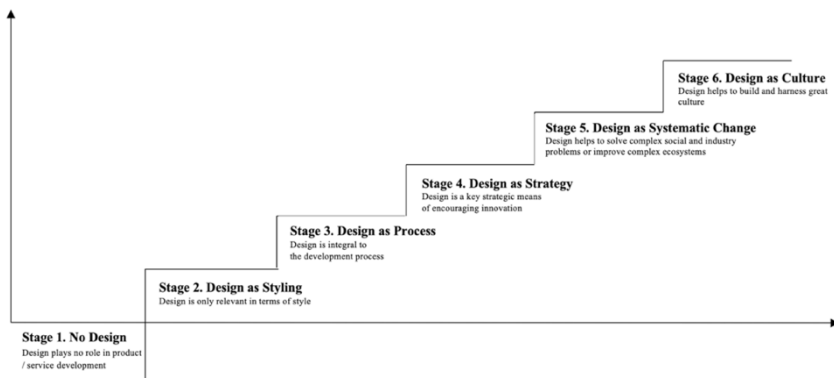


Figure 2. Extended Danish Design Ladder

Source: (Hoedemaeckers, 2016).

It follows, therefore, from the above that the systematic design of organisational change is inevitable and, in combination with the creation of an organisational culture, essential for survival in the current times.

Research methods

This study is an excerpt from a complex survey on identifying the determinants and effects of implementing design management in companies (Dziadkiewicz, 2021). The study was conducted in 2019–2020 and covered the whole of Poland. It consisted of two parts.

In the first stage, quantitative estimation was used by applying the CATI method (standardised structured telephone interview conducted using a computer). For this part of the survey, 1,200 medium-sized and large enterprises registered in Poland were purposively selected.

The second part of the survey was of an in-depth nature. The survey used qualitative verification by means of the PAPI technique (direct interview using an interview questionnaire). In a purposive manner, 58 enterprises were selected, which are characterised by a high level of design maturity and experience in implementing the design management approach and a specific size – only large enterprises were selected.

By using such different measurement methods: quantitative estimation by CATI and qualitative verification by means of PAPI and IDI, knowledge about the use of design management in the surveyed companies was obtained, the approach was described and answers to questions that were impossible to obtain in a standard survey were obtained. Descriptive statistics, suitable for cross-sectional series, were used to analyse the properties of the data-generating processes.

Maturity in terms of design management means not only the ability of a company to carry out certain tasks, usually acquired in the process of development, but also, with regard to the organisation, the improvement of the skills and processes implemented in it (Hammer, 2007, pp. 1–14; Brajer-Marczak, 2012, pp. 513–523). In order to identify a specific level of design maturity, the process maturity characteristics developed by Grajewski (2007, pp. 119–120) were used. These are:

- the ability to build and improve a product and/or service, which is in the nature of the whole organisation rather than individual employees,
- processes are fully identified and planned, and their ecosystem is communicated to employees,
- processes are monitored and improved on an ongoing basis by means of, *inter alia*, cost-effectiveness analysis. Product and service quality and customer satisfaction are also monitored,
- team roles and responsibility for tasks are clearly defined.

The decision to select only large enterprises was made on the basis of the results obtained in the previous stage. The decision to select only large enterprises was made on the basis of the results obtained in the previous phase. The next phase of the study was a qualitative validation of the data using the IDI (individual in-depth interview) technique on the same group of 58 respondents. Descriptive statistics, suitable for cross-sectional series, were used to analyse the properties of the processes generating the data.

Using path analysis, the relationships between the identified conditions and the effects of design management were analysed. The analysed characteristics of the design management process were treated as predictors. They were made up of the following components:

- design management experience measured by the number of years in which design management has been implemented in companies,
- the duration of projects in which design management was used.

Among the dependency factors analysed, exogenous explanatory variables were key – they were influenced by variables from the set of design management characteristics.

On the other hand, the Design Maturity Ladder, described in the previous subsection, played the role of a mediator of the partial dependency between the conditions of design management in an enterprise and the effects achieved thanks to the discussed approach. This is because it was assumed that the form of the design management process is a derivative of the conditions occurring within the company. The effects of design management were analysed as explained variables. It is worth noting that the process approach (Auksztol & Chomuszko, 2019; Dobrowolska, 2017; Dereń & Skonieczny, 2016), and the concept of creating maturity models were used to develop design maturity levels (van Steenbergen et al., 2010).

Results

Based on the literature on the subject and the authors' experience, 40 potential determinants were identified, followed by a survey consisting of 22 issues. The aim of the survey was to elicit responses from the respondents on the prevalence of individual determinants and their level in companies. The results obtained were subjected to principal component analysis (PCA), with the aim of constructing scales consisting of a combination of questions, yet with a high degree of accuracy. The study used the Kaiser criterion, through which three areas of design management determinants in the company were identified. These are:

- competence determinants of management and employees,
- organisational determinants, concerning the activities and processes taking place within the organisation,
- managerial determinants, which depend on the company's management skills.

Based on the results, obtained through the survey, it is worth noting that the dimension on competence determinants explained 18.01% of the variance, the dimension on organisational determinants explained 28.9% of the variance and the third dimension, management determinants, explained 16.9% of the variance.

From the point of view of the purpose of this article, the focus was on the third area – management considerations, mainly due to the fact that more than 55% of the respondents taking part in the survey highlighted the role of management as a key

element for the success of the change (5 on a scale of 1–5). To confirm this, it is worth adding that the respondents pointed out that:

- it is usually only the management that is aware of the real need, meaning and purpose of change, as it has the necessary data and information on the condition of the organisation and the environment,
- the management is able to see the holistic picture of its organisation and business environment and can thus create a coherent vision after the changes,
- the board is also responsible for the relevance of the changes and has the decision-making and driving power to synchronise the various implementation activities,
- the board has the resources and can decide on the appropriate allocation of the necessary resources in the change implementation process.

It is also important to point out the high reliability of the measurement, as measured by Cronbach's alpha analysis. For management determinants, it was 0.7. The choice of approach to change determines how the change will proceed, how effectively it will be implemented and how long it will take. Design management is an approach that relies on intuition and the use of lateral and synthetic thinking, and, therefore, provides a good basis for organisational action in an unstable situation when existing management models are no longer effective.

Table 1. Descriptive statistics for management determinants

Motives	M	SD	Mo	Me
Support of the design management approach by management board	62.60	32.40	55.68	62
Management involvement in the design management process	62.30	21.30	60	61
Management's reasonable expectations of the effects of design management	60.50	20.90	55	65
Management's ability to prepare a programme (set of projects) and optimise it	59.40	30.10	45	60
Conducting design management evaluations	59.20	26.50	48.64	60
Openness to new trends and innovations on the part of management	58.80	30.00	60	65
Linking design management to corporate strategy	58.40	25.60	55	62
Management's openness to development and creativity	58.10	20.80	58	68

M – mean value, *SD* – standard deviation, *Mo* – dominant, *Me* – median

Source: (Dziadkiewicz, 2021).

The most frequently indicated condition (Table 1) was to support the design management approach through the appropriate selection of staff in terms of competences and, most importantly, the transformation of the company into a self-learning system including, among other things, various forms of training, participation in innovation networks, recruitment of creative employees, selection of an appropriate incentive system, selection of advisors and experts for design work and process management. These activities would not have been possible without the management's awareness of the need to implement constructive design.

Support at management level is tantamount to the involvement of the board of directors in the design management process, which means that the top management

not only promotes design activities among employees, but is itself a doer and promoter of these activities, subordinating all decisions precisely to design management at the highest level of the Design Maturity Ladder. Management is, as it were, seen as a role model; moreover, the trust and openness to the ideas of the employees makes the processes sustainable and effective.

Management commitment can be understood as the ability to provide financial resources for creative activities. This point remains closely correlated with another determinant, namely the openness of management to staff development and creativity.

Management's rational expectations of the effects of design management seem crucial. Nurturing knowledge of the benefits of design, as well as the reasons for implementing the approach, fosters mutual respect for each other's work, mutual communication, and an unrestricted exchange of views.

According to the respondents (37% of those surveyed), the systems approach (Bednarski, 2001) referred to here, requires a holistic view of the individual components of the system so that they form one organised whole. It is enough to make a change in one place to trigger the need for change in other places. The change may be in strategy, organisational culture, use of technology, management style, etc. The essence of change management in this case is to develop a relationship between systems in which the process of continuous improvement and alignment of equivalent parts occurs, as it were, automatically and without much disruption.

In the case of the systems approach, the factor that synthesises the organisation and activates it to behave in a certain way is the managers, who, in addition to their management skills, should have the potential to build relationships among dispersed and non-linear elements. Thanks to the application of design management, especially the rational allocation of resources, it is possible to manage the enterprise effectively and even develop it despite unexpected and often inexplicable events occurring. Therefore, the first and most important prerequisite for a systemic approach to change is the ability to manage the resources effectively and efficiently at one's disposal as a response and reaction to changes and transformations in the external environment.

A systems approach is not possible to implement in a hierarchical organisation. Therefore, one of the basic pillars of successful design management is the creation of flat and flexible structures in the form of interdisciplinary teams. This action is referred to as the first step towards changing the company's structure.

The results of the study show that it is not worth neglecting employees in the process of implementing modifications. This is because it turned out that the most effective teams are those made up of managers and line employees, and those that work most effectively are those made up of completely independent individuals who differ in age, experience, gender and the environment from which they come (67% of respondents' answers). Diverse groups offer, according to the respondents, a greater chance of success, although managing them is not straightforward and far from a learned habit.

44% of leaders affirm that their own strategies, based on established patterns, are too bureaucratic and cumbersome. They inhibit rather than support organisational

development and change implementation for this change development. Many organisations that have a change implementation plan in place adapt it to their capabilities, including but not limited to their existing often ossified structure and outdated systems and processes. The structure, systems and processes, in order to cope with the changing reality themselves, must also be subject to change. They must constantly adapt to new circumstances.

The basis of the systems approach is people, or more precisely their attitudes and the nature and quality of their working relationships. Change is a long-term process of organisational improvement, the effectiveness of which depends on employees developing the need for change. Change should not only take place within organisational structures, but should take into account the personal development and needs of the members of the organisation.

Another example of an approach to change used by Polish entrepreneurs is the behavioural approach (43% of respondents), in which humans are considered one of the biggest barriers to change. Therefore, in this case, the task of management is a culture of openness to change, the building of mutual relationships based on trust and the concept of experiential learning implemented and applied.

Support at management level is tantamount to the involvement of the board of directors in the design management process, which means that the top management not only promotes design activities among employees but is itself the implementer and initiator of these activities, subordinating all decisions precisely to design management at the highest level of the Design Maturity Ladder. Management is seen, in a way, as an entity to follow and indicate the direction of change. What is more, the trust in the staff and the openness to cooperation makes the processes sustainable and effective.

Change management from a behavioural perspective aims to change the attitudes of employees and supervisors and ultimately improve the quality of the organisational culture. Which, again, seems quite a challenge, due to the fact that in order to be able to implement a change in organisational culture, it would first have to be scaled up. Meanwhile, according to Dutch researcher and subject matter expert Geert Hofstede (1980, pp. 15–41), there are enormous difficulties in classifying and comparing cultures due to the cultural conditioning of the researchers, in this case entrepreneurs or change leaders. Hofstede explored what influences human behaviour more: the company culture in which employees work or the culture in which they grew up. This cannot be clearly defined.

In companies using the behavioural approach (Trocki et al., 2003), the aim of change is to move the organisation to a higher level of functioning while improving efficiency and increasing employee satisfaction, therefore, the role of managers is important, as they are the ones who can positively influence the commitment of other employees. Their task is to make employees realise that change is necessary for the company. Here, the emphasis is, therefore, on good communication, which can make a significant difference to the success of the change, while bad communication (or

lack thereof) will devalue the change to the greatest extent. As it turns out, the most common cause of failure in implementing change is bad communication. Organisations fail to ensure that all employees are properly communicated with so that they know the purpose of the changes and the vision set by management. Another issue that clearly influences the failure of change implementation is the lack of adequate commitment from management.

It would seem that the optimal move would be to apply an integrated approach to the company, which combines the dependencies in the subsystems of the organisation and their interaction with the influence of the human being as a factor supporting or inhibiting change. This is the concept of a strategic approach to change management, based on human potential. The concept emphasises the role of the change leader in the change process and the importance of treating change as a permanent part of the operating strategy. The essence is the human being with his or her skills and motivation, a strong customer orientation and a comprehensive approach to quality and a close link to the long-term functioning of the organisation (Bratnicki, 1998; Clarke, 1997; Al-Ensour & Alhmeidiyeen, 2018, pp. 1–17). This is used by only 5% of the respondents.

Discussions and limitations

If we assume that the foundations of organisational management that have worked so far are too brittle and, therefore, insecure, we need to demonstrate capacity and resilience. Something brittle can be managed with a robust alternative plan. Therefore, managers should have a second option, even for those activities that seemingly work well. In this context, a good way to adapt and grow is to strengthen teams. Seeking a culture of collaboration, adopting distributed structures as a matter of course and investing in training are just some of the actions that can help make an organisation more resilient.

Implementing a culture of collaboration can increase communication and transparency between individuals, teams, departments and divisions.

If the company is experiencing anxiety, more empathy and mindfulness is needed. The best way to deal with anxiety is to raise awareness, open communication, no understatement. And above all, respecting the employee and addressing their concerns about losing their job. Indeed, employees often indicate a need for reassurance from management that they are needed, necessary and wanted. And they themselves acknowledge that they are aware that times are difficult, uncertain and mandating austerity.

You cannot manage something you cannot control, and you cannot control something you are not aware of. Dealing with anxiety requires the company to be more empathetic. It can also help if employees are trained in soft skills, which will become increasingly necessary in the times ahead. This does not mean training in,

for example, communicating with difficult customers or team building, i.e. relating only to the working environment, but topics that make it easier for the employee to find his or her way in private life as well. Especially since it is natural that employees transfer their fears and frustrations from their professional life to their private life and *vice versa*. There are more and more courses in well-being (Dziadkiewicz & Nieżurawska, 2016, pp. 117–129; Lindell et al., 2018), mindfulness, work-life balance and Scandinavian lifestyles such as *hygge* or *fika*.

If something is non-linear, it requires context and adaptability. A non-linear phenomenon should be approached without expectations. We should keep a fresh perspective and an honest, open approach to deal with events, people and technology. In a non-linear world, rigid plans are always a burden on business. Companies that do not innovate and rely only on “tried and tested” ways of doing things often fall behind the competition and cannot adapt quickly enough to changes in the environment.

If something is incomprehensible, it requires clarity and intuition. The world is speeding up, so it is not even possible to research and understand everything that is happening before making a decision, so intuition needs to be developed and relied upon. It can be fostered through the use of technologies such as artificial intelligence, Big Data and Data Science, but it is important to remember that change is brought about by people and people are most often affected by that change. Digital data will, therefore, never be completely certain.

The more something is difficult, due to its fragility, incomprehensible, anxiety-provoking and unpredictable, and running a business these days is exactly that, the more one should focus on analysing the situation, setting goals, planning actions (with a plan B) and starting to enforce them – i.e. a systematic approach to change management. In this way, you can count on changing the behavioural patterns and value systems of all members of the organisation, responding skilfully to threats and opportunities in the external and internal environment, optimising the organisation’s risks, providing a business case for change planning, preventing uncontrolled change and, most importantly, implementing change effectively and efficiently.

The open approach to change management as a construct of design management is understood primarily as the awareness of the need for change, its vision and the creation of the conditions that enable the change to take place. It produces the following effects: leaders are respected and effective, employees feel motivated to change, the organisation ceases to be hierarchical and becomes flexible and, therefore, more resilient to unexpected events, and employees become accustomed to working on themselves.

Companies need to learn to respond quickly and effectively to unpredictable change. To do so, they should develop four core competencies: quick thinking, quick decision-making, entering the market quickly, maintaining a fast pace.

The design management approach, epitomised in this article by robust organisational design, provides transparency in reporting relationships, decision-making, information flow and intra-organisational processes. With well-designed design,

everyone knows exactly what they are responsible for, who they report to and what other colleagues are responsible for. This can be beneficial for increasing operational efficiency, not only in large companies.

However, of course, this level of transparency has its drawbacks: in micro and small companies that do not have a formal structure, employees may be asked to perform many unrelated tasks. On the other hand, in medium- and large-sized organisations, employees may avoid or refuse to perform tasks beyond their responsibilities.

However, there are undeniably more benefits to this approach to change management. One is the continued emphasis on improvement: a well-designed company may be better placed to take advantage of growth opportunities than more loosely structured companies. Another is adaptability. Organisational design strategies respond to prevailing market conditions, which, as the article points out, are frequent and constant. Placing too much importance on operating in rigid patterns can leave business owners with companies that are well adapted to today's competitive environment, but less able to adapt to tomorrow's conditions. Companies with a more relaxed organisation can adapt to change more quickly to gain a competitive advantage. Advantages of the approach also include the ability to take advantage of opportunities that arise in the market at any given time. For example, a well-organised and growing company with a formal promotion path can motivate employees to excel, while a company with a lean organisational structure can convince frontline employees that there are no opportunities for promotion to management positions. Looser-structured companies without a formal structure may create managerial positions specifically for high-performing employees or continuously increase the salary of frontline employees without reaching grade limits.

The authors, aware of the fact that the presented study was conducted before and during the pandemic, and that the aim of the article is to indicate a possible approach to change in post-pandemic times, decided to supplement the above content with data from the 6th National Change Management Survey, conducted in 2021.¹ The data shows that the highest level of full achievement of objectives was demonstrated by changes to company quality policies (50% were successful), and the lowest by those related to technological modification (15%).

Reasons for this low success rate can be found, for example, in the low adoption of agile methods (only 32% of the companies surveyed in 2021 are introducing them). Traditional waterfall methods (cascade methods, which assume the sequential implementation of individual, pre-planned project stages) are used less and less each year due to their lack of effectiveness in a changing environment. In 2021, only 45%

¹ In November 2021, the Polish Chamber of Training Companies conducted a survey as part of the 6th National Change Management Survey. Responses were collected from 250 representatives of companies and institutions from different industries and of different sizes, of which more than 40% were large companies. This is the largest report of its kind in Poland. It showed what the picture of management is in Polish companies and how the effectiveness of change implementation can be increased (*Raport z ogólnopolskiego...*, 2021).

of respondents used them, compared to 60% just two years ago. The best performers in implementing change are companies in the financial industry, where the level of target achievement reaches 64%. At the other extreme is the FMCG industry with an effectiveness rate of 38% satisfactory and 13% full achievement of goals. Companies in science and education have the same percentage of satisfactory and full success ratings (40%), and the IT industry achieved satisfactory results in half of the cases. The industrial manufacturing sector ranked second in terms of effectiveness, with the level of success of change in the industry rated as satisfactory in 54% of cases and full success in 23% of cases.

Conclusions

Companies, operating in a turbulent and uncertain environment, must have dynamic strategies to ensure success. The task of managers is to continuously adapt them to changes in the environment, while effectively ensuring that the main objectives of the organisation are achieved. In turn, the source of competitive advantage lies not in creating an evolving strategy that prevents imitation by competitors, but in finding a way to make the enterprise resilient to economic change.

One way to survive may be to use a design management approach, which is characterised by flexibility, and the models created within the concept can, depending on the situation, have freely changeable constructs. This approach, by being open to the use of intuition and the lateral and synthetic way of thinking so characteristic of the creative industries, allows experimentation and the use of a predictive approach, which consequently fosters the creation not only of new products or services, but also fosters employee participation in co-management at all levels of the organisation, driven by inspirational leadership and supporting internal change within the company and solving complex problems.

The excerpt from the study on the awareness and use of design management by companies operating in Poland indicates that the role of management in the process of introducing changes is crucial to be able to cope with the challenges of today's world.

Lack of management involvement in the implementation of change leads, at best, to a decrease in the effectiveness of the process itself, i.e. the achievement of only some of the goals, e.g. exceeding the implementation time or exceeding the budget. Unfortunately, it very often ends in complete failure. Change implementation, therefore, needs vision and driving power. Of course, the implementation of the process can rest with the selected change leader, but without the support of the board he will have a problem convincing stakeholder of the change. Also, the scope of his or her decisions may be insufficient to trigger a specific action especially at the strategic level. Therefore, building openness to change, the ability to react quickly to changing environments and, above all, the ability to carry out change effectively are factors that generate organisational resilience.

References

- Al-Ensour, J., & Alhmeidiyeen, M. (2018). Integrated strategy of change management: A conceptual study. *International Journal of Business Economics and Management Research*, 9(9), 1–17.
- Auksztol, J., & Chomuszek, M. (Eds.). (2019). *Modelowanie organizacji procesowej*. Warszawa: Wyd. Naukowe PWN.
- Bednarski, A. (2001). *Zarys teorii organizacji i zarządzania*. Toruń: TNOiK.
- Bennet, G., & Lemoine, J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. *Business Horizons*, 57(3), 311–317. doi:10.1016/j.bushor.2014.01.001
- Best, K., Kootstra, G., & Murphy, D. (2010). Design management and business in Europe: A closer look. *Design Management Review*, 21(2), 26–35. doi:10.1111/j.1948-7169.2010.00062.x
- Brajer-Marczak, R. (2012). Efektywność organizacji z perspektywy modelu dojrzałości procesowej. *Zarządzanie i Finanse*, 10(1/3), 513–523.
- Bratnicki, M. (1998). *Zarządzanie zmianami w przedsiębiorstwie*. Katowice: Wyd. AE.
- Brown, T. (2008). Design thinking. *Harvard Business Review*.
- Brown, T. (2009). *Change by Design. How Design Thinking Transforms Organizations and Inspires Innovation*. New York: HarperCollins Publishers.
- Bucolo, S., & Matthews, J. (2011). *A conceptual model to link deep customer insights to both growth opportunities and organisational strategy in SME's as part of a design led transformation journey*. Design Management Toward a New Era of Innovation, ACM.
- Camillus, J.C. (May 2008). Strategy as a wicked problem. *Harvard Business Review*. Retrieved from <https://hbr.org/2008/05/strategy-as-a-wicked-problem>
- Clarke, L. (1997). *Zarządzanie zmianą*. Warszawa: Gebethner & Ska.
- Cooper, R., Junginger, S., & Lookwood, T. (2009). Design thinking and design management: A research and practice perspective. *DMI: Review*, 20(2), 46–55. doi:10.1111/j.1948-7169.2009.00007.x
- Davies, M. (2019). *The Danish Design Ladder*. Dec. 13. Retrieved from <https://www.mrmattdavies.me/post/the-danish-design-ladder>.
- Dereń, A.M., & Skonieczny, J. (2016). *Zarządzanie twórczością organizacyjną. Podejście procesowe*. Warszawa: Difin.
- Design Creates Value*. (Sept. 2007). Copenhagen: National Agency for Enterprise.
- Dickson, P., Schneider, W., Lawrence, P., & Hytry, R. (1995). Managing design in small high growth companies. *Journal of Product Innovation Management*, 12(5), 406–414. doi:10.1016/0737-6782(95)00056-9
- Dobrowolska, A. (2017). *Podejście procesowe w organizacjach zarządzanych przez jakość*. Warszawa: Poltext.
- Doherty, R., Wrigley, C., Matthews, J., & Bucolo, S. (2015). Climbing the design ladder: Step by step. *Revista D.: Design, Educação, Sociedade e Sustentabilidade*, 7(1).
- Dziadkiewicz, A., & Nieżurawska, J. (2016). Architektura pozytywnych doświadczeń (User Experience Design – UxD). Założenia wstępne do projektu rozwoju zrównoważonej turystyki wellbeing w regionie Południowego Bałtyku. *Marketing i Rynek*, 10, 117–129.
- Dziadkiewicz, A. (2017). Managing design process. Exploring the differences in and the relationship between the analytical, multiplying and visionary design process. *Handel Wewnętrzny*, 2(365), 69–81.
- Dziadkiewicz, A. (2021). *Design Management. Uwarunkowania i efekty wdrożenia w przedsiębiorstwie*. Gdańsk: Wyd. UG.
- EU Commission Staff Working Document. (2009). *Design as a driver of user-centred innovation*. Commission of the European Communities, Brussels.
- Grajewski, P. (2007). *Organizacja procesowa*. Warszawa: PWE.
- Hammer, M. (2007). The process audit. *Harvard Business Review*, 85(4).
- Hoedemaekers, B. (2016). *Are you getting the most out of Design?* Nov. 8. Retrieved from <https://medium.com/design-for-business/are-you-getting-the-most-out-of-design-f2f47caf2339>

- Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization*, 10(4), 15–41. doi:10.1080/00208825.1980.11656300
- Horst, W., Rittel, J., & Melvin, M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169.
- Kootstra, G., & Vink J. (2007). Measuring the future brand effect of graphic design. *Design Management Review*, 18(4). doi:10.1111/j.1948-7169.2007.tb00098.x
- Kraaijenbrink, J. (2022). What BANI really means (and how it corrects your world view). *Forbes Magazine*. Retrieved from <https://www.forbes.com/sites/jeroenkraaijenbrink/2022/06/22/what-bani-really-means-and-how-it-corrects-your-world-view/?sh=6dccc42711bb>
- Kretzschmar, A. (2003). The economic effects of design. *Economics*. National Agency for Enterprise and Housing, Copenhagen.
- Levy, J. (2015). *UX Strategy: How to Devise Innovative Digital Products That People Want*. Farnham: O'Reilly Media.
- Lindell, L., Dziadkiewicz, A., Sattari, S., Misiune, I., Pereira, P., & Granbom, L. (2018). *Potential for Wellbeing Tourism in Three Case Regions of the South Baltic*. Kalmar – Växjö: Linnaeus University.
- Melander, C. (2015). *The Design Ladder: Four Steps of design use*. Retrieved from <http://ddc.dk/en/2015/05/the-design-ladder-four-steps-of-design-use/>
- Pettigrew, D., Thurgood, C., & Bucolo, S. (2016). *A Design Innovation Adoption Tool for SMEs*. 20th DMI: Academic Design Management Conference Inflection Point: Design Research Meets Design Practice Boston, USA, 22–29 July.
- Prasad, S.S. (2022). *BEAT the VUCA or BANI world: A responsive framework*. April 12. Market Express, Global Insights and Analysis, Sharing Platform.
- Raport ogólnopolskiego badania zarządzania zmianą*. (2021). Polska Izba Firm Szkoleniowych. Retrieved from <https://pifs.org.pl/aktualnosci/425-zarzadzanie-zmiana-raport>
- Taleb, N.N. (2020). *Czarny labędz. Jak nieprzewidywalne zdarzenia rządzą naszym życiem*. Poznań: Zysk i S-ka.
- Tidd, J., & Bessant, J. (2014). *Managing Innovation. Integrating Technological, Market and Organizational Change*. England: Wiley.
- Topalian, A. (1990). Design leadership in business: The role of non-executive directors and corporate design consultants. *Journal of General Management*, 16(2). doi:10.1177/030630709001600203
- Trocki, M., Grucza, B., & Ogonek, K. (2003). *Zarządzanie projektami*. Warszawa: PWE.
- Van Steenberg, M., Bos, R., Brinkkemper, S., van der Weerd, I., & Bekkers, W. (2010). *The Design of Focus Area Maturity Models*. Conference paper at Global Perspectives on Design Science Research, 5th International Conference, DESRIST Switzerland, St. Gallen.
- Verganti, R. (2006). Innovating through design. *Harvard Business Review*, 84(12).