

# Want A Design Thinking Culture? Consider These Cultural Aspects Carefully

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Employee loyalty is fleeting, and the only way to keep it is to utilize, implement, and nurture a design thinking culture. Culture eats strategy for breakfast argues Lou Gerstner in the war room of IBM (Morgan, 2022). Culture is a term that we take for granted in today's business world. We show up and worry about customers, finances, expenses, marketing, stocks, bonds, and investments and culture is kicked to the side. We need a new model to show an effective way of developing a design thinking culture. In this article, we provide an alternative way for organizations and medium to small organizations to develop a design thinking culture to re-emerge with sustenance. Small businesses are struggling to get the consultation they need for success while many people are now working for small businesses around the world. By le-

veraging a design thinking culture, businesses can better understand customer experience, and provide more effective and innovative responses to their needs. Building the loyalty of both customers and employees is the new in-vogue management fad that needs to be exploited. Our findings in this article explain the phenomenon of design thinking culture and help executives foster such a culture because we need a paradigm shift before it's too late.

**Our study proposes a new model that helps organizations analyze the needs of customers and embrace corporate culture in-house to meet both internal and external customer needs. This proposed model comes from the findings of a large empirical study that used the triangulation method of quantitative (203 surveys) and qualitative (73 in-depth interviews) approaches. This model is a practical guide for executives to understand creating a design thinking culture is what today's organizations need to understand what delights customers as organizations build both employee and customer loyalty.**

Peter Drucker is famously credited with saying, "Culture eats strategy for breakfast." Lou Gerstner, the CEO behind IBM's turnaround in the '90s who himself was a former strategy consultant, came around to Drucker's way of thinking when he said, "Culture is everything." — (Morgan, 2022)

**Keywords:** Organizational Culture, Design Thinking, Design Thinking Culture, Business Success, Organizational Innovation.

## **The Design Thinking Culture Phenomenon: Implementing the Design Thinking Principles in Organizational Culture**

CEOs should be aware that organizational culture is an important factor in achieving business success and ensuring long-term survival in today's competitive business environment (Leso, Cortimiglia & Ghezzi, 2023; Qin, Li & Yang, 2023; Fietz & Günther, 2021; Joshi, 2021; Kayworth & Leidner, 2004). As organizations change and design a more effective organizational culture, they focus on downsizing or rightsizing to cut expenses, but this leads to low morale and a lack of innovation (Phillips & Klein, 2023; Khaw et al., 2022; Petitta & Martínez-Córcoles, 2022). Attrition may be the answer but depending on the age and health of each employee coupled with the industry standard for retirement, attrition may not be enough (Li, Song & Suh, 2022; Meinel & Thienen, 2022; You, 2022; Ney, 2019a), especially in a financial crunch. We recommend delighting both customers and employees, which has become more important. Drucker and many other scholars argue that the customer is at the heart of design making. As Drucker would argue, working back from the customer to the design thinking of an organization is key to its success.

To right-size organizational culture, employee innovation coupled with delighting the customer experience is what is important today. Executives can follow and implement the design thinking principles in their organizational culture. These principles manifest themselves in investigating customers' needs, challenging the current situations, fostering innovation, and creating new solutions to both old and new problems. We call this new culture a design thinking culture. Testing these solutions is important but anticipating potential problems before they occur is also very important (Thienen et al., 2011; Abrell, 2016).

### **Discussion and the Proposed Model**

Three factors that foster organizational success are building an inside-out culture, developing innovation across the board of internal and external exploitation, and using design thinking to break old and create new paradigms. Tesla linked these three factors as the best in the automotive industry to drive the Electric Vehicle Revolution (Muciri, 2023). Our model, presented below is the cornerstone of future-oriented design thinking for an organizational culture that delights both customers and employees. We attempt to answer a critical question for executives willing to expand organizational capabilities:

***How can a design thinking culture be created to increase organizational performance and innovation***

***while delighting the customer and employees?***

Various in-vogue tools and methods such as knowledge management have helped organizations change during the last few decades and have caused improvements in the performance of organizations (Serrat, 2017a; Tran, 2017). But with the emergence of modern and more complex technologies, organizations need a new and updated approach (Human & Watkins, 2022; Makowski, 2022; Jöhnk, Weißert & Wyrтки, 2021; Lins et al., 2021; Grösser, 2017). The emergence of new technologies has enhanced organizations in some ways but also created more complexity when innovating and creating new products, features, and services.

The complexity and development of new technologies are impacting all sectors of business and society. Accepting this paradigm shift and its inherent complexity is beginning to emerge as a core competency. New technologies such as artificial intelligence are no longer just a futuristic sci-fi trope, they're here now, and they're here to stay. Innovative technologies are revolutionizing business as we know it, and they're more accessible than ever. When organizations understand the complexities of these technologies, they become more intuitive in their capacity to change.

***So, where does design thinking come into play?***

Design thinking not only plays an important role in simplifying and revitalizing the complexities of organizational performance, innovation, and delighting customers and employees but also increases the potential to innovate (Bender-Salazar, 2023; Liedtka, 2018). By adopting design thinking ideas, members of the organization can begin to better release their creative energy in a more dynamic way and show more flexibility toward innovative ideas (Dunne, 2018; Razzouk & Shute, 2012). Developing the leadership energy to not only enable managers and leaders to create innovation but also dodge obstacles that prevent new products, features, and services in organizations is extremely important today.

As Peter Drucker, the renowned management author, argued, everything begins with the customer. Design thinking culture is focused on the customer experience and integrating that experience into product and service development (Knight et al., 2020; Elsbach & Stigliani, 2018).

It is important to provide the prior research that is indicative of the use of design thinking principles in which they argue that design thinking can be an important engine for developing an effective organizational culture (Body, 2008; Carlgren et al., 2014; Elsbach, 2018). Empirical studies show that prior research has not depicted an applicable and reliable model for executives to successfully implement a design thinking culture. We offer a model to build an effective organizational culture by taking the prin-



**Figure 1: The Design Thinking Culture Model**

ciples of design thinking to a new level. We suggest that organizations should first explore their customers' needs, define them, and disseminate them throughout the organization, and then challenge the current situations that hinder progress in these areas of customer viability, and finally, foster an innovative workplace to create new ideas and test them.

Begin the 2025 year with a plan, a model, and a strategy that will ensure that you have cultivated a design thinking culture. First, executives should ensure operational risk management, sometimes referred to as non-financial risk, and then attempt to lower costs by improving product and service effi-

ciency. Breaking through the political red tape with diversity, equity, and inclusion as controversial as it may be, this factor influences innovation (Calcetas & Murree, 2023; Karlsson, Rickardsson & Wincent, 2021; David, 2010). By building a diverse workforce, organizations are serving the people who buy their products and services (Hsiao, Chang & Chen, 2014; Dubina, 2013).

In the design thinking culture, the members of the organization are given the confidence to participate in ideation. Employees are encouraged to spend time understanding customer research management (CRM). CRM is a marketing term that is underuti-

lized by managers and executives. Communication channels with customers are expanded in all organizational departments. Fear of failure is despised and a new approach to the idea of trial and error is rewarded accordingly, creating more psychological safety for them (Durrah, 2022; McClintock & Fainstad, 2022; Burrell & Brauner, 2021; Torralba, Jose & Byrne, 2020). This psychological contract is both accepted tacitly and consciously as the organization becomes more of a design thinking culture. Customer relationship management is not limited to the production or marketing departments, all employees and customers are advocates of the organization. Everyone attempts to ascertain as much data as possible to understand the customer and develop innovation.

The management by objectives approach, referred to as MBO, gives each of the different departments of the organization effective communication channels to disseminate information quickly and effectively. Therefore, the design thinking culture should include the following cultural dimensions:

**(1) Analysis:** This dimension primarily manifests itself in analyzing the current situation and exploring the most desired situation for a company (Smircich, 1983; Hatch, 1993).

**(2) Innovation:** This dimension refers to the degree to which followers can provide the most innovative ideas and solutions for their organizational problems (Frohman, 1998; Rosenfeld & Euchner, 2012).

**(3) Inclusiveness:** This dimension is reflected in the degree to which organizations take an inclusive approach and welcome the diverse characteristics and backgrounds of their employees (Igboanugo et al., 2022).

**(4) Participation:** This dimension reflects the degree to which employees can actively participate in the organizational decision-making processes (Edelmann, 2022).

**(5) Risk-taking:** This dimension is defined as the extent to which employees can make risk-related efforts (Banks, 2012; Mihet, 2013).

**(6) Support:** This dimension recommends providing both psychological and social support to optimize employees' well-being and safety (Jacobson, 1987; Sackmann, 2021).

A design thinking culture facilitates the transfer of knowledge from customers to organization members (VanGronigen, Bailes & Saylor, 2022; Habicher et al., 2021). Design thinking puts the experiences of end users (customers) at the focal point of ideas for innovative projects. Knowledge management effectively serves the process of transferring knowledge from the external environment (customers) to the organization. The effective development of knowledge management in all departments of the organization acts as a reinforcement of the design thinking

culture and can lead to the development of more innovative solutions.

Our model indicates a *sharing culture* as the 7th dimension when creating and maintaining a design thinking culture (Ney & Meinel, 2019b; Serrat, 2017b). In addition, it can be seen that the ideas that are generated by the members of the organization and through the analysis of customer experiences are the primary data when incubating a new innovation (Kim, Jeong, & Kim, 2021; Rimmer, 2018; Haak, 2006). We also call this 8th dimension *exploration*, which tends to be the most important driving force of innovation. Therefore, based on our review of the literature, the following model is presented for a design thinking culture:

## Methods and Findings

This model provides several organizational performance indicators. We found that unless there is some sort of monopolistic oppression, such as the one that took place in the automotive industry in the 1980s, one of the non-financial indicators of organizational performance that is sought after is innovation. To measure the link between the two variables of design thinking culture and innovation, our empirical study used the triangulation method of quantitative (i.e., survey) and qualitative (i.e., in-depth interview) approaches. Empirical data were collected from one of the 10 world's largest multinational companies which operates a chain of hypermarkets. The key informants and samples were solicited from both managers and employees. Therefore, in this organization, both leaders and employees were surveyed.

The constructs used in this study were measured using a multiple-item questionnaire based on a 7-point Likert scale with a range from 1 (strongly disagree) to 7 (strongly agree). A seven-point scale allows us "to capture a greater variation in the responses in comparison to a five-point scale" (Ashok et al., 2016, p. 1010). The construct of design thinking culture also comprised eight main aspects: analysis, innovation, inclusiveness, participation, support, risk-taking, exploration, and sharing. Items evaluating organizational culture were formulated and validated by Lee and Choi (2003) and Zheng et al. (2010) (with Cronbach internal consistency reliability of analysis 0.81, innovation 0.80, inclusiveness 0.85, participation, 0.83, support, 0.81, risk-taking 0.87, exploration 0.82, and sharing 0.81). The sample items included:

- In my organization, there is a willingness to take risk.
- In my organization, there is a willingness to accept responsibility for failure.

The non-financial indicator of organizational performance (i.e., innovation) was also measured by a 7-item scale developed by Lee and Choi (2003) (with Cronbach internal consistency reliability of 0.89).

The sample items included:

- My organization performs well in terms of employee growth and learning.
- My organization performs well in terms of innovative responses to environmental changes.

First, a pilot test was performed to investigate any flaws in the design of the questionnaire. In the first stage, three academics in this area were invited to examine the face and content validity of the constructs and measurement items. After assessing the questionnaire, their insights and comments were incorporated into the measurement items. In the second stage, the revised questionnaire was examined by two other researchers in this area. Suggestions to enhance the quality of the survey were also incorporated in the revised survey. Subsequently, it was piloted with three executives and three employees from four two organizations operating in various industries. Comments and suggestions revealed that measurement items could be easily understood and completed.

Of the web-based surveys emailed to participants, the final sample consisted of 52 employees and 164 managers. After checking for missing data, 13 surveys were found to have missing data. Accordingly, these 13 incomplete surveys were omitted from the dataset. Further data analysis also highlighted those 84 respondents were female and 119 of them were male. Of the 154 managers in the sample, 83 had between 1 and 10 persons reporting directly to them, 44 had between 11 and 20 persons reporting directly to them, and the remaining 76 had more than 21 persons reporting directly to them.

Structural equation modeling (SEM) was used to analyze the data acquired from the target population. In this study, a two-step SEM package (i.e. confirmatory factor analysis (CFA) and full measurement model) performed with AMOS 20.0 was conducted to assess the measurement models (Anderson & Gerbing, 1988). Firstly, confirmatory factor analysis (CFA) validated the measurement model. Subsequently, in the second stage, a full hypothesized structural model was fitted, through implementing path analysis with latent constructs.

After analyzing the descriptive statistics, a confirmatory factor analysis was conducted on the full data set to gauge the measurement model fit. The results reported that the data did not fit the model well. Therefore, a bootstrapping procedure was performed, resulting in an adjusted chi-square p-value (i.e. Bollen-Stine p) of 0.07, indicating the data fit the model well. Other fit indices were: SRMR = .06, GFI = .91, TLI = .90, NFI = .90, CFI = .92, RMSEA = .06. Common-method variance (CMV) refers to the “variance that is attributable to the measurement method rather than to the constructs the measures are assumed to represent” (Podsakoff, et al., 2003, p. 879). Podsakoff et al.’s (2003) statistical approach

was utilized in this study to control the effects of CMV. Following this approach, Model 1 (i.e. the full measurement model) and Model 2 (i.e. the full measurement model accompanied with the common-method factor) were analyzed to identify the common-method factor effects. The results reported that: the data in Model 1 did not fit the model well. Therefore, a bootstrapping procedure was performed, resulting in an adjusted chi-square p-value (i.e. Bollen-Stine p) of 0.06, indicating the data fit the model well. In terms of Model 2, the data did not fit the model well. Therefore, a bootstrapping procedure was performed, resulting in an adjusted chi-square p-value (i.e. Bollen-Stine p) of 0.002, where the data still did not fit the model well. The results indicated that Model 1 provided a better fit compared to Model 2. Consequently, common-method variance is not a concern in this. Structural modeling was performed to indicate theoretical relationships (Kwon & Cho, 2016). In line with this, the fit indices were conducted to gauge the model fit. As a result, the empirical data did not fit the model well. Consequently, a bootstrapping procedure was conducted, resulting in an adjusted chi-square p-value (i.e. Bollen-Stine p) of 0.08, implying the data fit the model well. Other fit indices were: SRMR = .04, GFI = .93, TLI = .95, NFI = .94, CFI = .94, RMSEA = .05.

After the first distribution of questionnaires among these employees and executives, we conducted the project of design thinking culture development. The dimensions that we showed above built for the design thinking culture, and provided an impetus for further review and application. For example, for the innovation dimension, we helped managers Employees were encouraged to explore new situations and create new things

- Employees were encouraged to adopt new approaches to problems and propose new and even strange solutions
- Employees were encouraged to question and seek the unknown.

For the participation dimension, we helped managers develop a new work environment in which:

- Employees were encouraged to interact with each other to solve the organizational problems of their departments
- Employees were encouraged to work as a team and understand the goals of their teams.
- Employees were encouraged to develop honest relationships in teamwork with their teammates.

The link between design thinking culture and the non-financial indicator of innovation, which we measured through the distribution of question-

naires among 203 employees and executives before and after the implementation of a project, showed noticeable changes. First, the analysis results did not support this theoretical linkage and indicated that design thinking culture had no positive impact on the non-financial indicator of innovation ( $\beta = .10$ ,  $p = .06$ ). Then, after the implementation of a project, this link was then remeasured and indicated a strong positive impact ( $\beta = .33$ ,  $p < .001$ ).

Next, our 73 in-depth interviews with 17 senior managers, 21 middle managers, and 35 employees of this world-renowned company also showed that these managers and employees believed that the organization had become more innovative based on the application of the model. Both opportunistic and targeted sampling strategies were used for these interviews. The interview style was also unstructured. The interviews contained a story of how someone experienced something. Therefore, a narrative analysis was used to turn the individual narratives into data that could be coded (Espedal & Synnes, 2022). In terms of the key quotes, for example, in one of these interviews, one of the senior managers noted that "One employee's idea is now much more practical and innovative due to the additional clarification and verification among the teammates". One middle manager mentioned "Now, our company is a system that more innovatively manages itself". Similarly, one employee noted that: "I think our company is in a better place to innovate now." Another employee felt that "They experienced an improved personal life". Therefore, based on our pilot study, we suggest that the design thinking culture may work for many organizations and improve their non-financial performance of innovation. The goal would be to set up a want-got-gap analysis, in which we ask ourselves, along with our employees, what we want, what we have, and what we need to do to close the gap. This can be done with every dimension of the model.

## Conclusions

Preparing an organization for a better understanding of customer experience ensures more effective and innovative responses to customer needs. Organizational culture is the glue that keeps organizations together. A design thinking culture ensures the development of innovation and business success. The model presented above touches on eight dimensions (analysis, innovation, inclusiveness, participation, support, risk-taking, exploration, and sharing culture) for the effective development of a design thinking culture. The adoption of the two quantitative and qualitative research methods helped us to gain a more holistic view to approve the proposed model. This model can help organizations to continuously develop design thinking and provide more innovative solutions to respond to customer needs using a continuous improvement perspective in re-

al-time.

However, like all pilot studies, the present one is not without limitations. First, the findings of this research are confined to the sample within a larger community. Second, these results are only based on the perceptions of managers and employees addressed with anonymity. Based on these limitations, one area for further research is to conduct this model in a larger sample, across industries, and coordinate with each dimension categorized in a want-got-gap analysis approach. This can improve the generalizability of these findings and further extend the extant literature on design thinking.

## Where to Find Out More

This is a summary of an international management consulting project. The results of this research was also published in a book titled [Management Consulting's Black Box](#) Mostafa Sayyadi- [mostafasayyadi1@gmail.com](mailto:mostafasayyadi1@gmail.com), Michael J. Provitera- [MProvitera@barry.edu](mailto:MProvitera@barry.edu)

## References

- Abrell, T. (2016). Design Thinking and Corporate Entrepreneurship: An Integration and Avenues for Future Research. In: Brenner, W., Uebernickel, F. (eds) Design Thinking for Innovation. Springer, Cham. [https://doi.org/10.1007/978-3-319-26100-3\\_2](https://doi.org/10.1007/978-3-319-26100-3_2)
- Anderson, J., & Gerbing, D. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, 49(2), 155-173. <https://doi.org/10.1007/BF02294170>
- Ashok, M., Narula, R., & Martinez-Noya, A. (2016). How do collaboration and investments in knowledge management affect process innovation in services?. *Journal of Knowledge Management*, 20(5), 1004 - 1024. <https://doi.org/10.1108/JKM-11-2015-0429>
- Banks, E. (2012). A First Look at Risk Culture. In: Risk Culture. Palgrave Macmillan, London. [https://doi.org/10.1057/9781137263728\\_2](https://doi.org/10.1057/9781137263728_2)
- Bender-Salazar, R. (2023). Design thinking as an effective method for problem-setting and needfinding for entrepreneurial teams addressing wicked problems. *Journal of Innovation and Entrepreneurship* 12, 24. <https://doi.org/10.1186/s13731-023-00291-2>
- Body, J. (2008). Design in the Australian Taxation Office. *Design Issues*, 24(1), 55-67. <http://www.jstor.org/stable/25224150>
- Burrell, E. & Brauner, E. (2021). Knowing and sharing: Transactive knowledge systems and psy-

- chological safety. *Organisationsberatung, Supervision, Coaching* 28, 303–317. <https://doi.org/10.1007/s11613-021-00722-7>
- Calcetas, P., Murree, B. (2023). Innovation and Effectiveness Through Diversity. In: , et al. *Proceedings of the Canadian Society of Civil Engineering Annual Conference 2021. CSCE 2021. Lecture Notes in Civil Engineering*, vol 247. Springer, Singapore. [https://doi.org/10.1007/978-981-19-0968-9\\_49](https://doi.org/10.1007/978-981-19-0968-9_49)
- Carlgren L., Elmquist M., Rauth I. 2014. Design thinking: Exploring values and effects from an innovation capability perspective. *The Design Journal*, 17: 403–423. <https://doi.org/10.2752/175630614X13982745783000>
- David, A.H. (2010). Diversity, Innovation, and Corporate Strategy. In: Moss, G. (eds) *Profiting from Diversity*. Palgrave Macmillan, London. [https://doi.org/10.1057/9780230273887\\_2](https://doi.org/10.1057/9780230273887_2)
- Dubina, I.N. (2013). Measuring Organizational Climate for Creativity and Innovation. In: Carayannis, E.G. (eds) *Encyclopedia of Creativity, Innovation, and Entrepreneurship*. Springer, New York, NY. [https://doi.org/10.1007/978-1-4614-3858-8\\_44](https://doi.org/10.1007/978-1-4614-3858-8_44)
- Dunne, D. (2018). Implementing design thinking in organizations: an exploratory study. *Journal of Organization Design* 7, 16. <https://doi.org/10.1186/s41469-018-0040-7>
- Durrah, O. (2022). Do we need friendship in the workplace? The effect on innovative behavior and mediating role of psychological safety. *Current Psychology*. <https://doi.org/10.1007/s12144-022-03949-4>
- Edelmann, N. (2022). Digitalisation and Developing a Participatory Culture: Participation, Co-production, Co-destruction. In: Charalabidis, Y., Flak, L.S., Viale Pereira, G. (eds) *Scientific Foundations of Digital Governance and Transformation. Public Administration and Information Technology*, vol 38. Springer, Cham. [https://doi.org/10.1007/978-3-030-92945-9\\_16](https://doi.org/10.1007/978-3-030-92945-9_16)
- Elsbach, K. D., & Stigliani, I. (2018). Design Thinking and Organizational Culture: A Review and Framework for Future Research. *Journal of Management* 44, 2274–2306. <https://doi.org/10.1177/0149206317744252>
- Espedal, G. & Synnes, O. (2022). A Narrative Approach to Exploring Values in Organisations. In: Espedal, G., Jelstad Løvaas, B., Sirris, S., Wæraas, A. (eds) *Researching Values*. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-90769-3\\_11](https://doi.org/10.1007/978-3-030-90769-3_11)
- Fietz, B., Günther, E. (2021). Changing Organizational Culture to Establish Sustainability. *Controlling & Management Review* 65, 32–40. <https://doi.org/10.1007/s12176-021-0379-4>
- Frohman, A. L. (1998). Building a Culture for Innovation. *Research Technology Management*, 41(2), 9–12. <http://www.jstor.org/stable/24131641>
- Grösser, S.N. (2017). Complexity Management and System Dynamics Thinking. In: Grösser, S., Reyes-Lecuona, A., Granholm, G. (eds) *Dynamics of Long-Life Assets*. Springer, Cham. [https://doi.org/10.1007/978-3-319-45438-2\\_5](https://doi.org/10.1007/978-3-319-45438-2_5)
- Haak, R. (2006). Implementing Process Innovation — The Case of the Toyota Production System. In: Herstatt, C., Stockstrom, C., Tschirky, H., Nagahira, A. (eds) *Management of Technology and Innovation in Japan*. Springer, Berlin, Heidelberg. [https://doi.org/10.1007/3-540-31248-X\\_9](https://doi.org/10.1007/3-540-31248-X_9)
- Habicher, D., Erschbamer, G., Pechlaner, H., Ghirardello, L. & Walder, M. (2021). Transformation and Design Thinking: perspectives on sustainable change, company resilience and democratic leadership in SMEs. *Leadership, Education, Personality: An Interdisciplinary Journal* 3, 145–156. <https://doi.org/10.1365/s42681-022-00028-x>
- Hatch, M. J. (1993). The Dynamics of Organizational Culture. *The Academy of Management Review*, 18(4), 657–693. <https://doi.org/10.2307/258594>
- Hsiao, HC., Chang, JC. & Chen, SC. (2014). The Influence of Support for Innovation on Organizational Innovation: Taking Organizational Learning as a Mediator. *The Asia-Pacific Education Researcher* 23, 463–472. <https://doi.org/10.1007/s40299-013-0121-x>
- Human, S. & Watkins, R. (2022). Needs and artificial intelligence. *AI and Ethics*. <https://doi.org/10.1007/s43681-022-00206-z>
- Igboanugo, S., Yang, J., & Bigelow, P. (2022). Building a Framework for an Inclusive Workplace Culture: The Diversio Diversity and Inclusion Survey. *The International Journal of Information, Diversity, & Inclusion*, 6(3), 52–67. <https://www.jstor.org/stable/48700868>
- Jacobson, D. (1987). The Cultural Context of Social Support and Support Networks. *Medical Anthropology Quarterly*, 1(1), 42–67. <http://www.jstor.org/stable/648770>
- Jöhnk, J., Weißert, M. & Wyrтки, K. (2021). Ready or Not, AI Comes— An Interview Study of Organizational AI Readiness Factors. *Business & Information Systems Engineering* 63, 5–20. <https://doi.org/10.1007/s12599-020-00676-7>
- Joshi, D. (2021). Role of Culture in Success of Global High-Tech Startup Businesses from India. In: Thakkar, B.S. (eds) *Culture in Global Businesses*. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-60296-3\\_7](https://doi.org/10.1007/978-3-030-60296-3_7)

- Karlsson, C., Rickardsson, J. & Wincent, J. (2021). Diversity, innovation and entrepreneurship: where are we and where should we go in future studies?. *Small Business Economics* 56, 759–772. <https://doi.org/10.1007/s11187-019-00267-1>
- Kayworth, T., Leidner, D. (2004). Organizational Culture as a Knowledge Resource. In: Holsapple, C.W. (eds) *Handbook on Knowledge Management 1. International Handbooks on Information Systems*, vol 1. Springer, Berlin, Heidelberg. [https://doi.org/10.1007/978-3-540-24746-3\\_12](https://doi.org/10.1007/978-3-540-24746-3_12)
- Khaw, K.W., Alnoor, A., AL-Abrow, H., Tiberius, V., Ganesan, Y. & Atshane. (2022). Reactions towards organizational change: a systematic literature review. *Current Psychology*. <https://doi.org/10.1007/s12144-022-03070-6>
- Kim, J., Jeong, B., Kim, D. (2021). Who Drives Innovation? Apple. In: *Patent Analytics*. Springer, Singapore. [https://doi.org/10.1007/978-981-16-2930-3\\_11](https://doi.org/10.1007/978-981-16-2930-3_11)
- Knight, E., Daymond, J., & Paroutis, S. (2020). Design-Led Strategy: How To Bring Design Thinking Into The Art of Strategic Management. *California Management Review* 62, 30–52. <https://doi.org/10.1177/0008125619897594>
- Kwon, K., & Cho, D. (2016). How transactive memory systems relate to organizational innovation: the mediating role of developmental leadership. *Journal of Knowledge Management*, 20(5), 1025–1044. <https://doi.org/10.1108/JKM-10-2015-0413>
- Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), 179–228. <https://doi.org/10.1080/07421222.2003.11045756>
- Leso, B.H., Cortimiglia, M.N. & Ghezzi, A. (2023). The contribution of organizational culture, structure, and leadership factors in the digital transformation of SMEs: a mixed-methods approach. *Cognition, Technology & Work* 25, 151–179. <https://doi.org/10.1007/s10111-022-00714-2>
- Li, W., Song, Z., Suh, C.S. (2022). Design Innovation by Synergy. In: *Principles of Innovative Design Thinking*. Springer, Singapore. [https://doi.org/10.1007/978-981-19-0485-1\\_5](https://doi.org/10.1007/978-981-19-0485-1_5)
- Liedtka, J. (2018). Why Design Thinking Works, *Harvard Business Review* (September–October 2018). <https://hbr.org/2018/09/why-design-thinking-works>
- Lins, S., Pandl, K.D., Teigeler, H., Theibes, S., Bayer, C. & Sunyaev, A. (2021). Artificial Intelligence as a Service. *Business & Information Systems Engineering* 63, 441–456. <https://doi.org/10.1007/s12599-021-00708-w>
- Makowski, P.T. (2022). Routines: towards the Complexity of Organizational Intentionality. *Review of Philosophy and Psychology* 13, 1059–1080. <https://doi.org/10.1007/s13164-021-00566-1>
- McClintock, A.H., Fainstad, T. (2022). Growth, Engagement, and Belonging in the Clinical Learning Environment: the Role of Psychological Safety and the Work Ahead. *Journal of General Internal Medicine* 37, 2291–2296. <https://doi.org/10.1007/s11606-022-07493-6>
- Meinel, C. & Thienen, J.V. (2022). Design Thinking—Enabling Digital Engineering Students to be Creative and Innovate. In: Meinel, C., Krohn, T. (eds) *Design Thinking in Education*. Springer, Cham. [https://doi.org/10.1007/978-3-030-89113-8\\_2](https://doi.org/10.1007/978-3-030-89113-8_2)
- Mihet, R. (2013). Effects of culture on firm risk-taking: a cross-country and cross-industry analysis. *Journal of Cultural Economics*, 37(1), 109–151. <http://www.jstor.org/stable/41811070>
- Morgan, J. (2022, November 22). Watching for the cracks in your culture. *Forbes*. [Watching For The Cracks In Your Culture \(forbes.com\)](https://www.forbes.com/sites/jmorgans/2022/11/22/watching-for-the-cracks-in-your-culture/)
- Muciri, N. (2023). Case Study: Tesla - Design Thinking Driving the Electric Vehicle Revolution. <https://www.linkedin.com/pulse/case-study-tesla-design-thinking-driving-electric-vehicle-muciri>
- Ney, S., Meinel, C. (2019a). Innovation, Wicked Problems and Design Thinking. In: *Putting Design Thinking to Work. Understanding Innovation*. Springer, Cham. [https://doi.org/10.1007/978-3-030-19609-7\\_2](https://doi.org/10.1007/978-3-030-19609-7_2)
- Ney, S., Meinel, C. (2019b). Leadership, Design Thinking and Messy Institutions. In: *Putting Design Thinking to Work. Understanding Innovation*. Springer, Cham. [https://doi.org/10.1007/978-3-030-19609-7\\_7](https://doi.org/10.1007/978-3-030-19609-7_7)
- Petitta, L., Martínez-Córcoles, M. A. (2022). Conceptual model of mindful organizing for effective safety and crisis management. The role of organizational culture. *Current Psychology*. <https://doi.org/10.1007/s12144-022-03702-x>
- Phillips, J., Klein, J.D. (2023). Change Management: From Theory to Practice. *TechTrends* 67, 189–197. <https://doi.org/10.1007/s11528-022-00775-0>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Qin, Z., Li, Y., Yang, Y. (2023). Organization. In: *Management Innovation and Big Data. Management for Professionals*. Springer, Singapore.

- [https://doi.org/10.1007/978-981-19-9231-5\\_2](https://doi.org/10.1007/978-981-19-9231-5_2)
- Razzouk, R., & Shute, V. (2012). What Is Design Thinking and Why Is It Important? Review of Educational Research 82, 330–348. <https://doi.org/10.3102/0034654312457429>
- Rimmer, M. (2018). Elon Musk's Open Innovation: Tesla, Intellectual Property, and Climate Change. In: Rimmer, M. (eds) Intellectual Property and Clean Energy. Springer, Singapore. [https://doi.org/10.1007/978-981-13-2155-9\\_19](https://doi.org/10.1007/978-981-13-2155-9_19)
- Rosenfeld, R., & Euchner, J. (2012). Culture, People, and Innovation: An Interview with Robert Rosenfeld. Research Technology Management, 55(2), 13–17. <https://www.jstor.org/stable/26586216>
- Sackmann, S.A. (2021). The Influences of Culture on Organizations' Daily-Life. In: Culture in Organizations. Contributions to Management Science. Springer, Cham. [https://doi.org/10.1007/978-3-030-86080-6\\_4](https://doi.org/10.1007/978-3-030-86080-6_4)
- Serrat, O. (2017a). A Primer on Organizational Culture. In: Knowledge Solutions. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0983-9\\_40](https://doi.org/10.1007/978-981-10-0983-9_40)
- Serrat, O. (2017b). Design Thinking. In: Knowledge Solutions. Springer, Singapore. [https://doi.org/10.1007/978-981-10-0983-9\\_18](https://doi.org/10.1007/978-981-10-0983-9_18)
- Smircich, L. (1983). Concepts of Culture and Organizational Analysis. Administrative Science Quarterly, 28(3), 339–358. <https://doi.org/10.2307/2392246>
- Thienen, J.v., Noweski, C., Meinel, C., Rauth, I. (2011). The Co-evolution of Theory and Practice in Design Thinking – or – “Mind the Oddness Trap!”. In: Meinel, C., Leifer, L., Plattner, H. (eds) Design Thinking. Understanding Innovation. Springer, Berlin, Heidelberg. [https://doi.org/10.1007/978-3-642-13757-0\\_5](https://doi.org/10.1007/978-3-642-13757-0_5)
- Torralba, K.D., Jose, D. & Byrne, J. (2020). Psychological safety, the hidden curriculum, and ambiguity in medicine. Clinical Rheumatology 39, 667–671. <https://doi.org/10.1007/s10067-019-04889-4>
- Tran, S.K. (2017). GOOGLE: a reflection of culture, leader, and management. International Journal of Corporate Social Responsibility 2. <https://doi.org/10.1186/s40991-017-0021-0>
- VanGronigen, B.A., Bailes, L.P. & Saylor, M.L. (2022). “Stuck in this wheel”: The use of design thinking for change in educational organizations. Journal of Educational Change. <https://doi.org/10.1007/s10833-022-09462-6>
- You, X. (2022). Applying design thinking for business model innovation. Journal of Innovation and Entrepreneurship 11, 1-25. <https://doi.org/10.1186/s13731-022-00251-2>
- Zheng, W., Yang, B., & Mclean, G.N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management. Journal of Business Research, 63(7), 763-771. <https://doi.org/10.1016/j.jbusres.2009.06.005>

## Review

This article was accepted under the **constructive peer review** option. For further details, see the descriptions at:

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